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Valentina Licata.  
Office of Rail Regulation,  
1 Kemble Street,  
London, WC2B 4AN

4<sup>th</sup> September 2013

Dear Ms. Licata,

**GB Railfreight Ltd. response to the ORR Periodic Review 2013: Draft Determination of Network Rail's Outputs and Funding for 2014-19:**

**General Comments:**

GB Railfreight (GBRf) welcomes the significant changes made from the proposals in the PR13 consultation document to what has been proposed in this Draft Determination. GBRf believes that further work is required in CP5 to ensure that rail freight remains the backbone for freight transport in the UK by CP6 and beyond.

As incentivising efficient behaviour is at the core of PR13, GBRf would like ORR, for the Final Determination, to ensure it sets appropriate targets and benchmarks for Network Rail that rewards it for improving its performance on the network however the ORR must ensure that if Network Rail fails to achieve its required efficiencies, the operators should not be left to pick up the additional costs.

The Draft Determination and agreed freight forecasts predict freight growth of 22% over the next 5 years and, indeed, beyond this timescale. To realise this growth, the DfT, ORR, Network Rail and the FOCs need to work closely through CP5 to ensure that we can jointly agree a sustainable longer term pricing mechanism into CP6 and beyond.

The Strategic Freight Network (SFN) funding and expenditure should be decided strategically and aligned to compliment similar private sector investments in said areas. All SFN spending must establish an appropriate network with sufficient capacity for the growing freight market.

GBRF welcomes the named major CP5 investment schemes and will continue to be involved with the detail of how the money is best spent:

- 1) Committed HLOS projects – Midland Main Line Electrification, Great Western Electrification, East Coast Main Line Upgrade (£240M ECML Connectivity Fund).
- 2) £200M Strategic Freight Network Fund (England & Wales) + £30M SFN Fund (Scotland).
- 3) £300M Journey Improvement Fund.

GBRf does question the value of the schemes in the Electric Spine concept and believes that CP5 investment could be targeted more wisely in projects such as the electrification of the route from the Port of Felixstowe through Peterborough and Leicester to the West Midlands and West Coast Main Line rather than from Southampton. Although being discussed for CP6 investment, were Felixstowe electrification to be brought forward to CP5, the expanding Intermodal traffic from Felixstowe port (as opposed to Southampton traffic levels) is just the sort of quantum required to push some freight operators into using electric traction, especially if inland terminals are also electrified in CP5.

### **CHAPTER 3 – OUTPUT FRAMEWORK:**

#### **Decisions on Network Availability:**

GBRf is pleased to see that, compared to the CP4 figure, the CP5 network availability metric is more focussed on freight operators and their customers. We would urge ORR to keep the proposed reduction of 33% for freight disruption, from the start of CP5 to the end of it, in its Final Determination not least to incentivise Network Rail to take into account all of its customers' requirements to continue to run its services whilst programming maintenance, renewal and enhancement works during CP5.

#### **Decisions on Network Capability:**

GBRf notes that ORR states that the baseline capability of the network will be that in place as at 1<sup>st</sup> April 2014 described in the Sectional Appendices, GEORGIS database and National Gauging database. There are, currently, instances where the Sectional Appendices show incorrect infrastructure (e.g. Clay Cross Down Goods Loop currently showing 352m when it is over 640m) and capability which will need to be corrected before being acceptable as the definitive CP5 baseline infrastructure.

The baseline infrastructure must also still contain those pieces of infrastructure that have not been formally altered by an established Network Change. This must be rigorously enforced before the start of CP5 as there is already infrastructure that has been removed without an agreed and established Network Change. GBRf would want these specific items to still be part of the baseline infrastructure.

Freight Operating Companies are now the very few that try to ensure that useful network capacity is not unnecessarily eroded and GBRf fully agrees that, with devolution now in place, Network Rail must consistently maintain, on a timely basis, the collection and provision of capability data. Given the above concerns, GBRf would like more clarity on how ORR will ensure that Network Rail declares the correct network capability at the beginning of CP5.

### **CHAPTER 8 – ASSET MANAGEMENT – MAINTENANCE & RENEWALS EXPENDITURE:**

#### **Maintenance – Route Specific Issues:**

Having read the various maintenance plans for the routes and having already discussed the topic at Network Rail route meetings, it is clear that, through the whole of CP5, there are a large number of lines, nationally, that will require skilled personnel for working on overhead line (OHL) equipment to keep the asset in optimum condition. This not only applies to those routes currently electrified but to the large number of route miles that will be newly electrified over the next 5-6 years.

GBRf believes there is already a real shortage of good quality OHL engineers and that, with the amount of new OHL being erected during CP5, there is a real and immediate requirement, right now, for more skilled staff. Without this expertise, GBRf believes the electrified network will not be as robust as it needs to be to support the increasing number of passenger and freight services.

## **Maintenance and Renewal Efficiency:**

As ORR states in paragraphs 8.292 a-f, probably the least efficient and most controversial aspect of Network Rail planning its maintenance and renewal activities is the mismatch between a possession being applied for in an Engineering Access Statement and the actual work content not being known in any real detail at that point. This leads to more trains being removed from the plan than might really be necessary.

Far greater efficiencies will be gained if contracts for work are let much earlier, the work content understood correspondingly earlier than the possessions applied for being of the correct length, not a best guess at the time of application. To gain these real efficiencies, a whole new way of contract and possession management will be required and GB Railfreight has and will fully support this changing of practice.

## **CHAPTER 9 – ENHANCEMENTS EXPENDITURE:**

### **European Rail Traffic Management System (ERTMS):**

GBRf welcomes ERTMS train fitment costs being treated as an enhancement ring-fenced fund with the Network Rail allocation of £206M in CP5 renewals expenditure. The procurement process must ensure that reliability levels are as high as practicable and that current network operational flexibility is at the least, maintained, and ideally greatly enhanced as much of the risk of performance and reliability will transfer from Network Rail to the TOCs and FOCs.

ERTMS brings significant savings to Network Rail and GBRf welcomes Network Rail sharing the benefits from the reduced costs of signalling when ERTMS returns the benefits from the initial investment.

## **CHAPTER 10 – DELIVERABILITY OF ENGINEERING WORK:**

### **Signalling Asset:**

GB Railfreight is very concerned that one of the most significant increases in renewals is within the signalling asset, which will nearly double in volume in CP5. Network Rail's national signalling testing resources are, currently, very scarce and likely to become even more so in CP5, not least because of competing demands for various London Underground re-signallings and the many other signalling projects in the Far East and throughout the world.

GBRf is not convinced that Network Rail has sufficient competent testing resource to cater for the large CP5 increase in highly specialised work. Very recent re-signalling over-runs (by a day or more) on the south end of the East Coast Main Line and the Ash Vale to Alton route highlight the big risk in delivering this quantum change of signalling work. The geographical spread of these skilled personnel, compared to current and future signalling work banks, does nothing to increase the productivity and robust delivery of these safety-critical works.

As a sizeable amount of the CP5 re-signalling programme will be ERTMS related, and the operational requirements of this system are still as yet unconfirmed, it isn't clear if Network Rail yet knows its requirements for the operational roll-out and therefore how well resourced it is for delivering its CP5 re-signalling programme.

## **CHAPTER 12 – FINANCIAL FRAMEWORK:**

### **Approach to Risk and Uncertainty:**

Network Rail's approach in managing its own risk should not bring additional risk on to its customers. Network Rail should consider how the freight industry has historically applied inflationary price rises to its customers while also increasing the volume of freight moved by rail.

GBRf believes the "true up" calculation for RPI price increases is unworkable. This gives operators no certainty in their costs through a control period, brings unacceptable risk to the customer, and is too complicated to work. The proposal also gives Network Rail no incentive to control costs from its suppliers, as it can simply pass the costs on to the operators in the following year. Network Rail should manage its own inflationary prices with good contract management and encourage efficiencies from its suppliers to reduce costs. Simply passing increased costs through to the customer is not an acceptable way to improve its efficiencies.

The "true up" calculation method also goes against the principle of periodic reviews giving as much certainty as possible to operators and their customers over a five year period and, for that reason, cannot be supported by GB Railfreight.

## **CHAPTER 16 – ACCESS CHARGES:**

### **Variable Usage Charge (VUC):**

GBRf is concerned that the revised VUC price list doesn't sufficiently incentivise either passenger or freight operators to invest in track-friendly bogies because the differential in charges for track-friendly bogies, and vehicles that damage the track, are insufficient to incentivise the required changes to operators' behaviours.

The VUC Cap also protects operators who have a fleet of vehicles that are not track-friendly with the revised rates sending the wrong signals to operators. It's perverse that damaging vehicles are capped and protecting operators who use them and dis-incentivising operators to invest in newly track-friendly vehicles. The ORR should consider, carefully, how to really encourage operators to invest in track-friendly vehicles.

### **Treatment of the Serco analysis in allocating variable usage costs to individual vehicles:**

GBRf wants the first SERCO report investigated in detail and would like to engage expert opinions to decide if both the input data for specific wagons and the output data of this first report was indeed correct and accurate. GBRf believes that the current VTISM model over-predicts damage from freight vehicles.

To more accurately model the true impact of freight vehicles, the data that's input into VTISM needs to have been accurately modelled against the wagon VAMPIRE® vehicle runs so that the study deals with as true and accurate a picture as possible.

Without this taking place the wheel/rail force input data will be inaccurate and the predicted costs for how a wagon impacts on maintenance and renewal costs will be wrong. Given the potential large sums of money involved with this project, there is no room for estimation or not modelling the actual benefits of the specific bogies involved.

If it is correct, the ORR needs to be careful how any additional costs are applied, as competition to railfreight is subsidised and does not have transparency of costs. In GBRf's view, it would not be right to impose transparency of costs to rail freight, when it doesn't apply the same mechanism to other modes of freight transport.

### **Capacity Charge:**

The capacity charge is in place to hold Network Rail cost-neutral against its Schedule 8 payments to operators for increased train miles over and above the agreed baseline figures at the start of the Control Period. The important point to note here is that the capacity charge is applicable to additional train miles over and above the baseline figure, not all services, i.e. the charge is about the financial risk of increased activity not the actual cost of congestion.

During this access charging review process, there has been extensive industry engagement on this charge and GB Railfreight is clear that, taking into account the above points, Network Rail has significantly over-recovered its Schedule 8 costs, to the tune of approximately £360M over the first three years of CP4 and is continuing to do so.

It is also clear that, from 2008/09 onwards, Freight Operating Companies' (FOCs) train miles have been below the CP4 baseline figure and yet FOCs have still been paying a capacity charge on all trains. Importantly, over at least the last five years, FOCs have also contributed to easing congestion on the network by running longer and heavier trains but pays no less in capacity charge.

In April 2013, the Rail Freight Operator's Association (RFOA) proposed an alternative capacity charging mechanism which has since been discussed in detail among a cross-industry working group. A copy of this proposal is attached to this e-mail. GBRf believes this specific RFOA alternative mechanism should replace the current capacity charge moving into CP5 and that it should apply to both franchised & open-access passenger and also freight operators. The benefit of the RFOA proposal is that it's far more cost-reflective for all concerned, with TOCs and FOCs actually paying what is due.

The proposal has been welcomed and endorsed by Network Rail and GBRf recommends the ORR adopts this mechanism into the Final Determination. GBRf will, obviously, engage in further debate of the review of this charge for CP6.

### **Coal Spillage Charge:**

As noted in the Draft Determination, GB Railfreight is still of the opinion there has been far too little evidence-based information to support Network Rail's cost estimates and assumptions on how the spillage of coal might affect the lifespan of both plain line and S&C on the network. There also appears to have been a lack of true understanding on the actual effects of coal spillage. Without this, and noting ORR's concerns on missed opportunities for recording incidents of coal spillage, GBRf is disappointed that the coal spillage charge will be increased by 57% at the start of CP5.

GBRf is also disappointed that the mechanism, as proposed, contains no incentives for operators to reduce coal spillage although some, obviously, chose to do so.

Operators who actively ensure coal spillage from its wagons is kept to as low a level as possible should be rewarded for this behaviour and the coal spillage charge should be made against trains that actually cause the spillage and discounts provided for operators who can demonstrate that they reduce levels of contamination.

### **Freight Specific Charge (FSC):**

GBRf welcomes the removal of Biomass from the application of the FSC. Biomass is a new emerging market to rail freight and investment from the generators will have been stifled if the additional charge had been applied. GBRf also welcomes the reduced FSC, when compared to the consultation document, for coal to £1.04/kgtm phased in over five years.

However GBRf does have reservations that Network Rail employs regulatory economists to decide what the markets can afford and how to charge markets captive to rail and still doesn't believe that the introduction of a new CP5 Freight Specific Charge is the right way of obtaining a mark-up charge for those markets that are deemed to be able to bear it.

### **LEK Consulting Report – Estimating Freight Avoidable Costs:**

GBRf believes that the LEK Consulting report does not give a true reflection of the transparency of freight avoidable costs and this particularly applies to the sections titled "Redundant Freight Asset Avoidable Costs" and "Consequential Cost Increases".

GBRf does not believe that redundant leased freight asset costs should be included in any such exercise. The redundant leased freight sites would still incur costs to Network rail for security, maintenance and surveys which are all costs not currently incurred by Network Rail.

GBRf believes that consequential cost increases would be higher than the LEK Consulting report implies and that the benefit Network Rail enjoys from marginal rates for business purchased from the FOCs is understated. GBRf believes that the additional costs for engineering bulk supply trains, engineering possession trains, video survey and test trains and railhead treatment trains would be substantially more than the LEK Consulting report has implied.

The LEK Consulting report should also not be viewed in isolation. A balanced view should be taken, identifying the economic benefits of railfreight and identifying the additional costs that UK business would incur should freight that's currently moved by rail switch to other means of transportation.

Treasury revenue generated by UK railfreight movement should also be identified to give a true balanced view on the true freight avoidable costs.

### **Schedule 4 Possessions Regime:**

GB Railfreight is in favour of the continuation of the current Schedule 4 regime and believes that the Schedule 4 payment rate should be set to compensate freight operators, in full, for the financial impact of service disruption from Network Rail possessions.

The original CP4 Schedule 4 freight rates, some 30% higher than now, went quite some way in compensating FOCs for additional operating costs incurred as a result of planned Network Rail possessions. This has included compensation for items such as additional traincrew for running over a different route, consequentially altered and longer traincrew workings to cater for this change, increased track access charges for greater mileage and the downgrading of gauge for Intermodal traffic to name but some of the more important criteria.

GB Railfreight is clear that the current CP4 and new CP5 Schedule 4 rate (as per end of CP4 rate) does not, and will not, sufficiently compensate operators for increased costs during possessions. This is a particularly important issue as FOCs are likely to face a considerable increase in the quantum and severity of disruption in CP5 compared to CP4.

GB Railfreight has also noted the new Category 1 and 2 payment rates (per occasion) for Network Rail possessions and the proposal to increase the total Schedule 4 freight compensation fund to £12.2M.

The Network Rail to freight operator payment rate must also be at a high enough level to incentivise Network Rail not to automatically plan possessions during traditional freight hours of operation if it is the cheaper option.

The lowering of the Schedule 4 freight payment rates by 31%, in 2011, only weakened Network Rail's incentive to not disrupt freight traffic ahead of passenger traffic. A set of rates that doesn't, already, fully compensate freight operators will not encourage them to agree to more efficient possessions (for Network Rail) that would materially affect freight operators' business. There is no recognition of the impact on customers when services are unable to run and the long impact this may have on future business.

The CP5 Schedule 4 payment rates should, at the very least, revert to the pre-adjustment levels, with additional funding, to take into account the increase in the number of major schemes and works that will be implemented in CP5 compared to CP4. This should also be done without an access charge supplement.

### **Schedule 8 Performance Regime:**

Incentivising efficient behaviour is at the core of PR13. GBRf believes that increasing the rate payable from FOCs to Network Rail, whilst protecting Network Rail's payment rate to FOCs, is unjust and sends completely the wrong signals regarding past and future performance.

Network Rail will not have reached its regulated performance targets by the end of CP4 and the proposed rates do not incentivise Network Rail to improve its performance from the start of CP5.

Throughout CP4, freight operating companies have shown greater improvements in performance than Network Rail and would thus be penalised at the start of CP5 with the proposed disparity of rates. This would then force further performances improvements on the FOCs, while Network Rail would be held harmless with no incentive to improve.

The RFOA has commissioned LEK Consulting and Professor David P. Myatt to analyse key ORR and Network Rail assumptions in the calculation of the Network Rail payment rate.

Professor David P. Myatt also adds that Network Rail's assumption of a 50% pass-back to the customer, in the form of a lower price, is incorrect. Professor Myatt's report demonstrates the value should be 80% pass-back in the form of a lower price. Using this methodology the Network Rail to FOC rate should be adjusted to £24.24 per minute.

The LEK Consulting report analysed how longer, heavier trains have already increased the value of a freight train and what the increased impact of delay is to these services. The LEK Consulting report indicates that the Network Rail to FOC payment rate is undervalued by £5.60 per minute.

The two factors, combined, result in a revised Network Rail to FOC payment rate of £25.86 per minute.

These two report demonstrate that keeping the Network Rail to FOC payment rate at the same level as in CP4 is unjustified. GBRf would like the ORR to consider this information and revise the Network Rail to FOC payment rate in line with the research the FOC community has commissioned.

## **CHAPTER 19 – FINANCIAL INCENTIVES:**

### **Route-Level Efficiency Benefit Sharing (REBS):**

As an open-access freight operator, GB Railfreight is receptive to the incentive element of REBS however there are some specific points where far more clarity is needed:

Paragraph 19.19 states that, for CP5, additional adjustments that ORR will consider making to the measure of REBS performance are where:

- a) Network Rail makes a *significant* (my italics) change to its spend profile.....
- b) Network Rail makes *material* (my italics) changes to the methodology for allocating costs between operating routes

GBRf needs to be clear what "significant" and "material" actually mean in terms of quantum and also how these two types of change are to be measured. Without clarity on these two points, GBRf won't have any certainty of the parameters and rules of engagement of REBS.

There also doesn't appear to be any protection to REBS-participating TOCs & FOCs in the form of a dispute and resolution process, as we move through CP5, in the event that either party is not performing and responding in the way that's expected.

Yours sincerely,

**Ian Kapur.**  
**National Access Manager.**



## **CAPACITY CHARGE – RFOA PROPOSAL**

### **Executive Summary**

- The Capacity Charge was introduced in 2003 to recognise the increased performance penalty risk that could arise for Network Rail from increased freight and passenger services on the Network
- Due to billing systems limitations at Network Rail, the actual basis for charging was simplified down to a charge per train mile for all services rather than just incremental services.
- Since 2005/6, freight train miles have actually reduced by 34.7% as the FOCs have become more efficient in aggregating loads and making best use of the network. Passenger train miles meanwhile have increased 13.6% in this period.
- It could therefore be argued that based on the original policy, the freight sector should not be paying any capacity charge until their usage of the network measured in train miles has returned to 2001/02 levels as we have reduced performance risks rather than increased them.
- Network Rail is keen to secure a much higher unit rate per mile for capacity charges to reflect the increased financial risk accruing from the uplift in Schedule 8 delay minute rates.
- As a compromise, the RFOA proposed a zero charging base on CP4 Schedule 8 benchmark levels (2010-12) and pay a capacity charge on incremental traffic on an aggregated FOC basis for each at the new higher rate. This could be calculated and paid at the end of each financial year in CP5.

### **Principle**

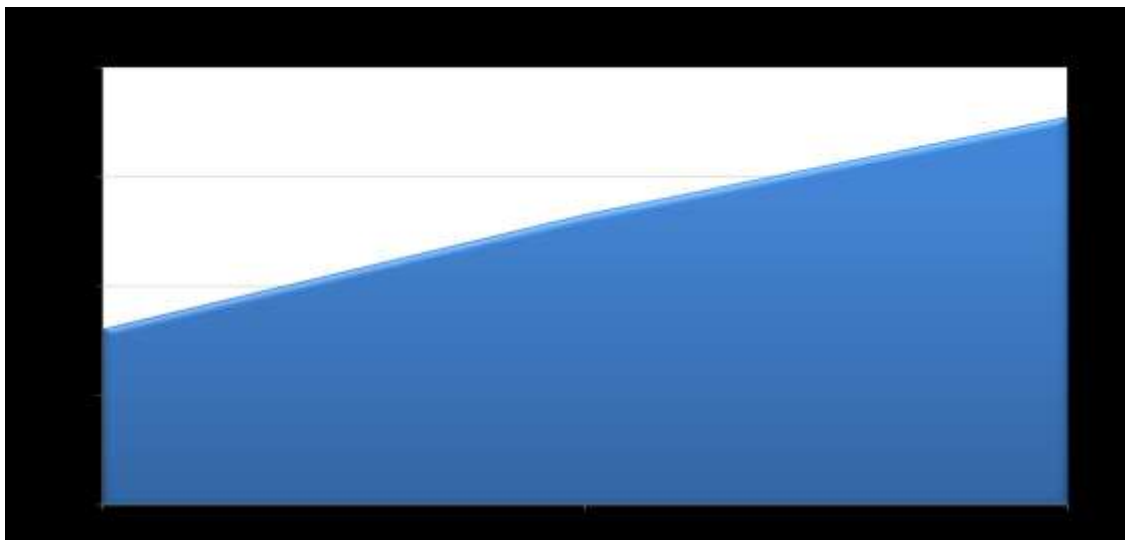
The Capacity Charge is designed to neutralise the increased Schedule 8 payments made by Network Rail associated with the increased difficulty of recovering from incidents as the network becomes more crowded. The purpose of the Capacity Charge is therefore to ensure that Network Rail are not disincentivised to accommodate additional trains on the rail network which may bring wider economic and social benefits.

### **Current Charge**

Since its inception in 2001 the Capacity Charge has been charged on the basis that the same rate applies to all train miles, whether it is existing trains or additional trains. This methodology results in fundamental overcharging as the calculated marginal rate for additional trains is applied to all trains. This methodology does not take into account the fact that the Schedule 8 performance regimes are benchmarked or that the marginal rate for additional trains on a busy network is higher than the cost of trains already on the network as congestion results in increased secondary delay.

This has resulted in approximately £400 million over-recovery by Network Rail in the first 4 years of Control Period 4 (CP4). This level of over recovery is despite the fact that the Capacity Charge rates have not been recalculated since 2001 whereas Schedule 8 payment rates were updated from the beginning of Control Period 4 (2009); if the Capacity Charge had been increased in line with Schedule 8 rates the over-recovery would have been considerably higher. This also means that during CP4 there has been a de-linkage between Schedule 8 payment rates and the Capacity Charge at the margin.

The below graph shows Network Rail's income from the Capacity Charge net of Schedule 8 payments for the first 3 years of CP4 (Regulatory accounts for 2012/13 still awaited):



It is noted that in the case of franchised passenger operators (who pay around 97% of the total value of the Capacity Charge) Network Rail does not benefit financially from this over recovery as the Capacity Charge income is offset against the Fixed Charge income.

However freight operators only pay an equivalent to a fixed charge (the Freight Specific Charge) on those market segments that are deemed by the ORR to be able to afford a “mark-up”. Therefore there is no equivalent off-set for freight operators and the Capacity Charge is an actual cost to freight operators.

Track access charges are required to conform to the principles set out in the Railways Infrastructure (Access and Management) Regulations 2005 (“the Regulations”). As the part of Capacity Charge already within Network Rail benchmarks is in effect in lieu of fixed charges then the charge is in effect a “mark-up” which must then conform to the principles set out in paragraph 2 of Schedule 3 of the Regulations. In essence this states that a mark-up can only be levied on those market segments that are deemed to be able to bear one. The current methodology for calculating the Capacity Charge does not seem to be compliant with the Regulations and therefore RFOA have proposed an alternative methodology that is compliant with the Regulations.

### **Updating the Capacity Charge**

Network Rail contracted Arup to re-calibrate the Capacity Charge for CP5 and the final report was published on 24<sup>th</sup> May 2013. As a result of this calibration Network Rail has concluded that the Capacity Charge rates for freight should increase by some 400% (from approximately £4 million per annum to £21 million per annum). This large increase, if applied using the current methodology, i.e. to all trains would have resulted in an unaffordable increased cost to FOCs. This therefore exacerbated the need to reconsider the existing structure of the Capacity Charge for CP5, particularly in light of its inconsistency with the Regulations.

### **RFOA proposal**

#### Original proposal based on Schedule 8 benchmark adjustments

The RFOA made a proposal to Network Rail in August 2012 to incorporate the Capacity Charge within Schedule 8 benchmarks. This mechanism is already in use for the freight operator element of the benchmark, which is adjusted annually when there have been increases in total train miles on the network. At that time Network Rail said there was insufficient time to consider this proposal for CP5 implementation. RFOA is still of the view that adjusting the benchmarks for Network Rail as well as FOCs would be the most appropriate way of ensuring that Network Rail were correctly incentivised to accommodate additional traffic and suggests that further consideration is given to this in preparation for CP6.

### Subsequent proposal based on marginal additional trains only

As an alternative the RFOA made an alternative proposal to the ORR in April 2013.

The basic proposal is that a baseline of freight train miles is established based on the same year as is being used to calibrate Schedule 8 benchmarks. At the end of each year this is compared to the actual freight train miles operated in that year by all freight train operators. Assuming this is a positive number the difference is multiplied by the capacity charge rate per train mile and then is charged to each freight train operators in proportion to the total number of freight train miles that they have each operated (ensuring no discrimination between operators). If the number of train miles has not increased over the baseline or has reduced the payment would be zero. The mechanism is in practice similar to other “wash-up” mechanisms such as the calculation of the EC4T charge, which is adjusted for actual use at the end of each financial year.

The same method of calculating the cost of the marginal impact is used based on the Arup report but the actual charge for freight is calculated on a marginal basis based on the number of train miles actually operated in the form of a wash-up at the end of the year.

This methodology supports the principle of paying for every new train mile operated on the network. It applies equally to all trains and is a transparent and simple with low administration costs.

Please see below example of calculation based on actual figures provided by Network Rail for 2012/13.

Capacity Charge Rate £ per mile		£0.86		
	Base Train Miles (average 2010-12)	10% growth	10% decline	20% growth
	24,693,489	27,162,838	22,224,140	29,632,187
Additional Capacity Charge Income		£2,123,640	£0	£6,370,920

### Zero based line

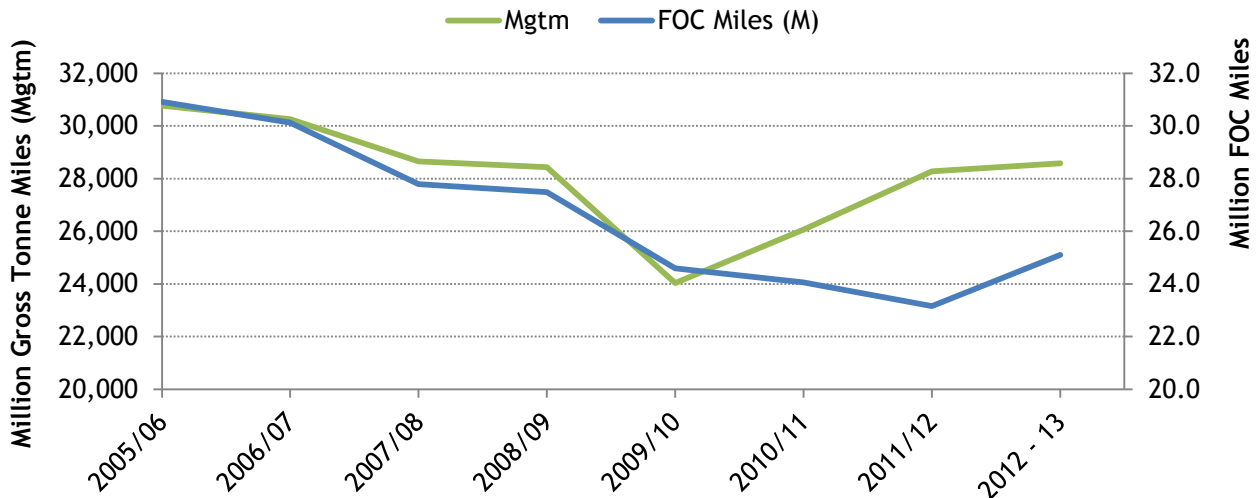
This proposal would result in a baseline of zero payment (based 2010-12 train miles so in practice given increased mileage in 2012/13 there would be some payment) before growth (compared to approximately £4 million a year in CP4). The RFOA thinks this is not an unreasonable starting point for several reasons:

Payments made below the Schedule 8 benchmark level equate to an over-recovery of costs and are therefore a contribution to fixed costs, and therefore should be assessed against an ability to pay in line with the Access and Management Regulations.

In the CP5 draft determination the ORR has proposed changes to both the NR and the FOC benchmarks levels. According to the ORR's calculations, at current performance levels the combined impact of these benchmark changes would be a reduction in Network Rail's out payments on the freight Schedule 8 by £10.3 million. Therefore net of the reduction in Capacity Charge Network Rail's net out payments would still reduce by £6.3 million assuming no change in actual performance levels.

Since 2001/2 when the current Capacity Charge was calibrated the number of freight trains has reduced by 34.7% and since 2005/6 (no earlier data available) the actual number of freight train miles has reduced by 18.9% - see graph overleaf. There is a strong case that the benchmark should actually be set at 2001/2 levels of freight miles, when the current Capacity Charge was calibrated.

## Rail Freight Activity



The RFOA has however proposed a compromise that it is based on the same years as Schedule 8 benchmarks are set which is we now understand 2010/11 and 2011/12 which would result in a annual benchmark of 24,693,489 miles. In summary freight operators have contributed to reducing congestion on the rail network rather than causing additional congestion. Network Rail's exposure to Schedule 8 payments has reduced, but a Capacity Charge has still been paid for all trains (freight operators have not been rewarded for their contribution to reducing congestion).

It could therefore be concluded that the train miles baseline was set at the 2001/2 level, when the Capacity Charge was last updated, i.e. a much higher level. This means that the efficiency gains already made by freight operators are incorporated into the new baseline.

### Simplistic methodology

RFOA has proposed a nationwide and simplistic Capacity Charge based on all trains. This reflects the national one tier payment rate in the freight Schedule 8. RFOA does not support a more complex structure based on commodity groupings, as this seems an unnecessary given the one size fits all basis of the Schedule 8 regime.

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**Train load impacts on the  
Network Rail Payment Rate**

**4 September 2013**

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## Network Rail Payment Rate – Train Load

- Following the review of the Network Rail Payment Rate (the “payment rate”) conducted during PR08, the payment rate was set at £17.47 per train minute of delay. The rate of £17.47 applied for the year 2009/10 and has since been uplifted annually for inflation. In the draft determination for PR13, the ORR propose to follow the same approach of annual uplifts for inflation such that the payment rate was £19.13 in 2012/13, is £19.74 in 2013/14 and would be uplifted for inflation in each year of CP5.
- However, inflation is not the only factor that affects the per train minute cost of delay. Train load - i.e. the amount/volume of goods moved - is also an important factor. As train loads increase, each train minute of delay affects more goods and inflicts greater costs on both freight operators and freight users.
- The table below shows the elements of freight operator costs (sourced from ORR research), their relative sizes and how they respond to changes in train load:<sup>1</sup>

Freight operator costs	Effects of increased loads per train on delay costs	Approx. % of freight operator costs	Changes proportionally with train load?
Loco lease & maintenance	Same number of locomotives required to move load	7%	×
Wagon lease and maintenance	More wagons required to move larger load	6%	✓
Driver costs	Same number of drivers required to move load	12%	×
Fuel	Fuel consumption higher with heavier load	55%	✓
Handling	Greater staff numbers/machinery required to load/unload	13%	✓
Repositioning	Greater logistical problems in repositioning more wagons	6%	✓
<b>Total</b>		<b>100%</b>	<b>80%</b>

- The table above shows that for an increase in train load, 80% of the freight operator costs of delay would also increase proportionally.
- The table below shows the elements of freight user costs (sourced from the AECOM/ITS report) and how they respond to changes in train load:<sup>2</sup>

Freight user costs	Effects of increased loads per train on delay costs	Changes proportionally with train load?
Handling	Greater terminal handling costs per load	✓
Labour	Overtime payment is greater if train load increases	✓
Short-loading	Risk of not being able to fully load wagons due to delay increases as number of wagons increases	✓
Management Time	More phone calls and administrative time spent in contingency	✓
Road Substitution	With a longer delay, more lorries would be needed to move the load	✓
Penalties	Penalties determined by size of load	✓
Collection & delivery	More drivers/vehicles waiting for train to arrive	✓
Stock out	Greater likelihood as loads increase	✓
Equipment	Extra machinery needed to unload if wagon numbers increase and turnaround time is reduced by delay	✓

<sup>1</sup> ORR Research reported in Annex C of Review of Access Policy Consultation (2010)

<sup>2</sup> Rail Freight User Values of Time & Reliability (2010)

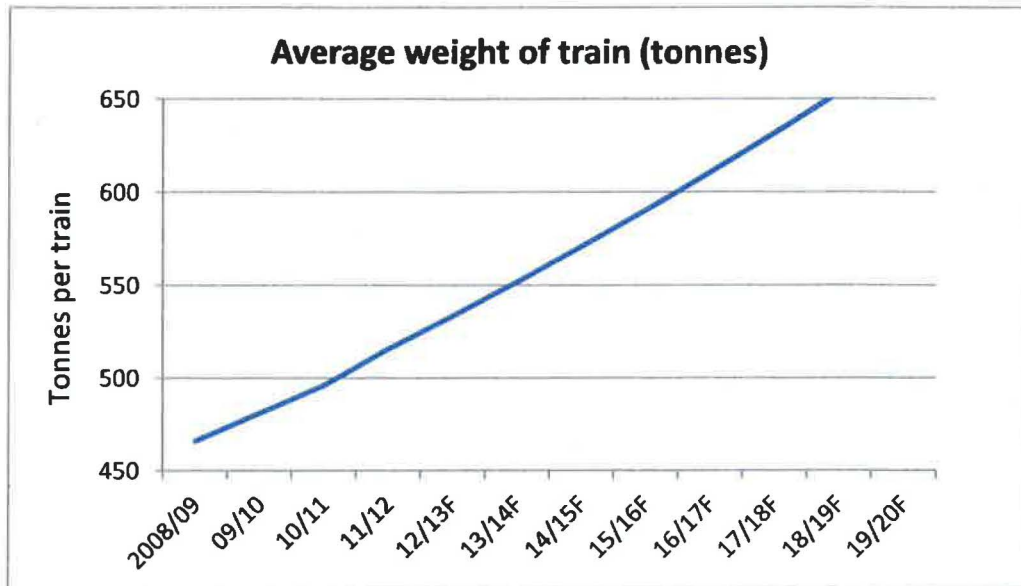


6. The table above shows that for an increase in train load, all freight user costs of delay would also increase proportionally.
7. In excluding changes in train loads from its calculations, the ORR is failing to compensate FOCs for increases in the consequences of delay. Since the entire premise of the payment rate is that it should compensate FOCs for the costs of delay and train loads are an important factor affecting those costs of delay, the payment rate should be adjusted to account for changes in train load.
8. We therefore suggest that the proposed payment rate should be adjusted for changes in train load since the beginning of CP4 and that, going forward, the payment rate should be adjusted annually to account for both inflation and changes in train load. In particular, the tables above demonstrate that freight user costs should change proportionally with average train load and that freight operator costs should change at 80% of the rate of the average train load.
9. Network Rail does not publish figures for the amount/volume of goods transported on the railway network; however, it does publish figures for the weight of goods transported. Although it is the amount/volume of goods that directly affects costs of delay, the weight of goods acts as a reasonable proxy for the amount/volume of goods. One proviso to this is that the different commodity types have different densities and so using industry-level figures for changes in average train weight will not accurately represent changes in the amount/volume of goods moved.
10. Network Rail figures show that average train loads, as measured by tonnes of cargo (i.e. net of the weight of the rolling stock itself) per train, have increased at an average rate of 3.4% per annum between 2009/10 (the beginning of CP4) and 2011/12.<sup>3</sup> Given the slight commodity shift towards intermodal during CP4, we believe that the average rate of 3.4% in fact masks a stronger increase in the amount/volume of goods moved per train. Consequently, the true increase in annual volume of goods per train would be higher than 3.4% p.a. However, since there has only been a slight shift in commodity mix during CP4, we use the figure of 3.4% as a proxy for the increase in amount of goods transported but note that it is lower than the true rate for the increase in amount of goods transported for these years.
11. Official figures for average tonnes per train are not available for the years after 2011/12, but the trend of increasing average tonnes per train is forecast by Network Rail to continue throughout CP5. Since Network Rail's forecast for freight traffic in total tonne kilometres is not based upon average weight per train, dividing Network Rail forecast tonne kilometres by forecast train kilometres would be misleading due to significant forecast changes in commodity mix.
12. Both track access charges and increasing network congestion incentivise freight operating companies to increase train loads rather than the number of train movements. Furthermore, the Network Rail forecast appears to assume unconstrained demand growth; this would suggest Network Rail under-estimates the growth in average train load as freight operating companies face very real constraints on their ability to add extra train movements. For these reasons, we have used the historical growth rate of 3.4% in our following indicative analysis.<sup>4</sup>

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<sup>3</sup> Network Rail Long Term Planning Process (April 2013)

<sup>4</sup> NR forecasts set out in Network Rail Long Term Planning Process - Freight Market Study Draft for Consultation, April 2013



13. The table below sets out our proposed methodology for recalculating the payment rate from the beginning of CP4 and throughout CP5. First, we separate the payment rate of £17.47 at the beginning of CP4 into a freight operator cost component and a freight user cost component (taking the freight operator cost figures from ORR Research)<sup>5</sup>. Secondly, we uplift the freight operator cost component for (i) inflation and (ii) 80% of the change in average train load. Thirdly, we uplift the freight user cost component for (i) inflation and (ii) the change in average train load. We then repeat each step on an annual basis.

<sup>5</sup> ORR Review of Access Policy 2010, Annex C



	CP4					CP5				
	2009 /10	2010 /11	2011 /12	2012 /13	2013 /14	2014 /15	2015 /16	2016 /17	2017 /18	2018 /19
<b>Payment rates uplifted only for inflation as proposed by ORR</b>										
Inflation - RPI (Previous year to December) <sup>6</sup> (%)	n/a	(0.5)	4.6	5.2	3.2	3.1	2.7	2.7	2.6	3.4
Operator costs (uplifted for inflation) (£)	2.68	2.67	2.79	2.93	3.03	3.12	3.21	3.29	3.38	3.49
User costs (uplifted for inflation) (£)	14.79	14.71	15.39	16.19	16.71	17.22	17.69	18.17	18.65	19.28
<b>Payment rate (£)</b>	<b>17.47</b>	<b>17.38</b>	<b>18.18</b>	<b>19.13</b>	<b>19.74</b>	<b>20.34</b>	<b>20.90</b>	<b>21.46</b>	<b>22.03</b>	<b>22.77</b>
<b>Average for control periods (£)</b>	<b>18.38</b>					<b>21.50</b>				
<b>Payment rates uplifted for both inflation and changes in train load</b>										
Growth in train load (Previous year) (%)	n/a	3.2	3.1	4.0	3.4	3.4	3.4	3.4	3.4	3.4
Operator costs (uplifted for inflation and partially for train load) (£)	n/a	2.73	2.93	3.18	3.37	3.57	3.77	3.98	4.20	4.46
User costs (uplifted for inflation and train load) (£)	n/a	15.19	16.38	17.92	19.12	20.38	21.66	23.00	24.42	26.11
<b>Payment rate uplifted for train load (£)</b>	<b>n/a</b>	<b>17.92</b>	<b>19.31</b>	<b>21.10</b>	<b>22.49</b>	<b>23.95</b>	<b>25.43</b>	<b>26.98</b>	<b>28.61</b>	<b>30.57</b>
<b>Average for control periods (£)</b>	<b>19.66</b>					<b>27.11</b>				
<b>Differences between payment rates uplifted only for inflation and payment rates uplifted for both inflation and changes in train load</b>										
<b>Difference between payment rates (£)</b>	<b>n/a</b>	<b>0.54</b>	<b>1.13</b>	<b>1.97</b>	<b>2.76</b>	<b>3.61</b>	<b>4.53</b>	<b>5.52</b>	<b>6.59</b>	<b>7.79</b>
<b>Difference in average payment rates for control periods (£)</b>	<b>1.28</b>					<b>5.61</b>				

14. Using this methodology to correct the Network Rail payment rate for changes in train load gives an indicative payment rate in 2013/14 of £22.49 rather than £19.74 as currently in place. By the end of CP5, further increases in train load produce an indicative payment rate of £30.57 as opposed to £22.77 and an average increase in payment rate during CP5 of £5.61. The difference in payment rates reflects the significant extra costs of delay incurred due to increases in train loads which should be factored into the payment rate.
15. We note that the table above uses industry-wide (i.e. not corrected for differences in density of commodities) figures for average train weight growth for the years 2009/10 to 2012/13 and an estimate of industry-wide average train weight growth of 3.4% to calculate the payment rate for the years after and including 2013/14. When using actual figures rather than forecast figures to set future payment rates, the ORR should beware that, due to forecast changes in commodity mix, growth in tonnes per train is likely to under-estimate growth in the true driver of user costs which is the amount of goods being carried per train.
16. In conclusion, the ORR proposes in the Draft Determination that the current payment rate, as set at the beginning of CP4 and subsequently uplifted for inflation, continue to be uplifted for

<sup>6</sup> ONS (RPI reference CHAW); Oxford Economics (ONS, Haver Analytics)

inflation during CP5. However, since the beginning of CP4 train loads have increased at an average rate of 3.4% and are projected to continue increasing throughout CP5. As shown in the tables in paragraphs 3-5, train load is an important factor affecting the costs of delay per train minute because almost all cost consequences of delay are linked to the amount/volume of goods that are delayed. If the payment rate is to compensate freight operators for the costs of delay, it should therefore be uplifted to account for the increase in train load.