



PR18: Capacity charge - Final impact assessment on options for the capacity charge

June 2017





### **Summary**

#### Which charging/incentive regime is this impact assessment looking at?

Capacity charge for passenger and freight operators.

This impact assessment supports conclusions from our December 2016 consultation 'Improving incentives on Network Rail and train operators: A consultation on changes to charges and contractual incentives' (henceforth referred to as the 'consultation'). The assessment of the options contained within this document has been updated to reflect points raised in response to the consultation.

#### Which of the PR18 outcomes does this charge/incentive deliver against?

High level PR18 outcomes	Description of outcomes
Better used	The existing capacity is put to the best use, delivering highest value for money

#### What can ORR do to deliver the intended outcomes?

Outcome	Objective
What does the outcome look like?	What can ORR do to ensure delivery of this outcome?
The existing capacity is put to the best use, delivering highest value for money	Provide accurate incentives for Network Rail to add traffic to the network
	Ensure operators take costs of service into account when using the network

#### How does the current charge/incentive achieve its objectives?

The regime compensates Network Rail for additional Schedule 8 payments from adding traffic, which, along with other variable charges and the volume incentive, should make Network Rail more willing to accommodate additional traffic. It gives some incentives to operators to take impacts on other parties into account when deciding whether to join the network.

#### What is the current problem under consideration?

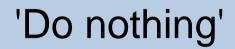
There are two areas in which it may be possible to improve upon the incentives provided by the charge. These are: the signals it provides operators about the best use of the network and the incentives it provides Network Rail to add traffic to the network. On the first incentive, there may be scope for improving these signals by making them better reflect the cost impact (in terms of operations, maintenance and renewal) to Network Rail of accommodating extra traffic or the performance impacts on end users. On the second incentive, there is some debate over whether the capacity charge (along with other variable charges and the volume incentive) give Network Rail the right incentives to add traffic to the network.

#### What options have been considered? Please justify preferred option (further details in Evidence Base)

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Option 0 ('do nothing'):	The capacity charge recovers the additional Schedule 8 payments Network Rail typically makes as a result of adding traffic, given levels of utilisation. The level of the charge is capped for open access, freight and charter operators.
Option 1:	Remove the CP5 caps on the level of the capacity charge for open access, freight and charter operators.
Option 2:	Remove the capacity charge and instead adjust Schedule 8 benchmarks for changes in traffic (RDG suggested option).
Option 3:	Remove the capacity charge, which would increase the potential mark-up applied under the revised fixed costs charge paid by operators.

State of the world	Best option under each state of the world	Reason it is the best option under this state of the world
Baseline	Option 3	Overall impacts are not certain at this stage, but options 1 & 3 perform better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.
Greater on-rail competition	Option 3	Overall impacts are not certain at this stage, but options 1 & 3 perform better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.
Reduction in franchise protection	Option 3	Overall impacts are not certain at this stage, but options 1 & 3 perform better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.
Greater/lesser freight protection	Option 3	Overall impacts are not certain at this stage, but options 1 & 3 perform better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.
Any other change to the current state of the world	Option 3	Overall impacts are not certain at this stage, but options 1 & 3 perform better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.





# 'Do Nothing'

#### Summary of the current arrangements

The capacity charge recovers the additional Schedule 8 payments Network Rail typically makes as a result of adding traffic, given levels of utilisation. The level of the charge is capped for open access, freight and charter operators.

#### Description of the 'do nothing' option

#### Introduction

Passenger operators pay a capacity charge per train mile which differs by service code, with different rates for weekdays and weekends. Freight operators pay a capacity charge which is the same across the network, with different rates for weekdays and weekends. The capacity charge is intended to reflect the additional Schedule 8 payments Network Rail would make as a result of adding traffic to the network.

Below, we describe how Schedule 8 works and how the capacity charge rates were calculated. We then explain the arrangements that apply to open access, freight and charter operators. We also explain how capacity charge revenues are treated within the regulatory framework. Finally, we explain the system of mark-ups that is expected to come into effect in the future regardless of what decision is taken with regard to the capacity charge.

#### Schedule 8

Schedule 8 of track access contracts holds Network Rail liable for any lateness that is not caused by other operators, whether this lateness results from Network Rail's actions or other factors (e.g. weather). Schedule 8 also holds operators liable for the delays that they cause, but as this aspect of Schedule 8 is not relevant to the capacity charge we do not discuss it further.

Under Schedule 8, Network Rail has benchmarks for lateness, with Network Rail paying operators if it does worse than the benchmark and receiving payments from operators if it does better than the benchmark. The regime is intended to compensate operators for lateness caused by factors outside their control, while providing incentives on Network Rail to reduce lateness. The payment rates are fixed in advance, and payments are made at the end of each four-week period.

In the case of passenger operators, benchmarks and incentive rates vary by service group. Payment rates were calculated based on the estimated revenue lost by franchised operators as a result of reduced passenger demand caused by lateness.

In the case of freight operators, the payment rate and the benchmark are the same across all operators. The payment rate is based on the rate set in PR08, uplifted for inflation.

Increased levels of traffic are typically associated with increased reactionary delays (i.e. knock-on delays), as it becomes harder for Network Rail to recover from an incident when the network is congested. As a result, additional traffic can lead to Network Rail facing higher Schedule 8 payments.

#### Calculation of capacity charge rates for Control Period 5 (CP5) which runs from 1 April 2014 to 31 March 2019

The capacity charge was recalibrated by Network Rail and its consultants at PR13. Capacity charge rates were calculated by estimating the relationship between capacity utilisation, measured by the Capacity Utilisation Index (CUI), and delays that are related to the volume of traffic, known as Congestion Related Reactionary Delays (CRRD). This relationship was then used to estimate how a small change in capacity utilisation would affect delays on different route sections during specific time bands. The financial cost to Network Rail was then calculated by applying the relevant weighted average Schedule 8 payment rate, for each route section and time band. These estimated costs were then aggregated by service code (weighted by train miles) in order to estimate passenger capacity charge rates for CP5. The vast majority of CP5 rates represented a significant increase on the capacity charge rates that applied during CP4.

Franchised operators pay these new CP5 rates in full. However, government holds them neutral to any changes in the level of charges for services specified in their franchise agreement.

#### Arrangements for open access operators

Given the large increase implied by CP5 rates, we put in place arrangements to mitigate the impact on open access operators (bearing in mind that they are not held harmless by government). Existing open access operators pay CP4 rates for existing traffic, and pay CP5 rates for new traffic. This is implemented through a wash-up arrangement.

New open access operators are charged CP4 rates for services below a threshold determined so as to provide equivalent treatment to existing open access operators. Services above this threshold incur CP5 rates.

#### Arrangements for freight and charter operators

We also put in place arrangements to mitigate the impact on freight operators (again, bearing in mind that they are not held harmless by government). The capacity charge for freight is set at around two thirds of the CP4 rate and is levied throughout the year on actual mileage run. At the end of the year, as part of a reconciliation process (also called a 'wash-up'), traffic is separated into three categories: coal & biomass, intermodal and other commodities. For these three categories, any traffic above baseline levels (i.e. 2012-2013 figures) generates so called 'wash-up' revenue for Network Rail which is equivalent to charging CP5 capacity charge levels on the above-baseline traffic. The proportion of the wash-up charge that is paid by each operator is determined based on their train mileage for each of the three commodity categories. The regime for charter operators is very similar.

#### Treatment of capacity charge revenues

At price reviews, a forecast of the revenues that Network Rail will earn from the capacity charge is produced, and this forecast amount is netted off the amount that Network Rail can charge to operators through the fixed charge. If actual traffic is different from forecast levels, Network Rail is exposed to the difference in capacity charge revenues.

#### Fixed cost charges

Because of the way that Network Rail's revenue requirement is recovered, reductions in the income generated by the capacity charge will be automatically re-couped through fixed cost charges. As discussed in our consultation on charges and incentives, we are proposing to recover fixed costs from all operators in CP6. The legislation requires that any charges set to recover costs above cost directly incurred, are subject to a market can bear assessment, which determines the level of mark-up (i.e. additional charges above cost directly incurred) that each market segment can bear. The methodology for setting these charges will likely be based on an updated allocation of fixed costs across the network (this analysis is currently being carried out by Network Rail) and the level of charges set for different services will be based on a market can bear assessment. So, changes to the capacity charge that reduce the amount Network Rail recovers through cost directly incurred charges would result in more being recovered through the revised fixed charges (up to the level that the market can bear).

#### How does the current charge/incentive achieve its objectives?

The regime compensates Network Rail for additional Schedule 8 payments from adding traffic, which, along with other variable charges and the volume incentive, should make Network Rail more willing to accommodate additional traffic. It gives some incentives to operators to take impacts on other parties into account when deciding whether to join the network.

#### Assessment of 'do nothing' option

#### Assessment key

The existing regime does not meet its objectives	××
The existing regime partially meets its objectives	×
The existing regime does meet its objectives	✓

Outcome	Objective	'Do
What does the outcome look like?	What can ORR do to ensure delivery of this outcome?	nothing'
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	×
	Ensure operators take costs of service into account when using the network	×

#### Summary of the problem under consideration

There are two areas in which it may be possible to improve upon the incentives provided by the charge. These are: the signals it provides operators about the best use of the network and the incentives it provides Network Rail to add traffic to the network. On the first incentive, there may be scope for improving these signals by making them better reflect the cost impact (in terms of operations, maintenance and renewal) to Network Rail of accomodating extra traffic or the performance impacts on end users. On the second incentive, there is some debate over whether the capacity charge (along with other variable charges and the volume incentive) give Network Rail the right incentives to add traffic to the network.

#### Problem under consideration with the current charge/incentive

#### **Legality**

Our December 2016 assessment of the capacity charge raised concerns about the legality of capping direct costs. In the light of responses to the consultation and advice from counsel we have revised our interpretation on the legality of doing so and have updated the assessment accordingly. This revised interpretation does not affect the overall assessment of options in this IA.

#### Objective: Provide accurate incentives for NR to add traffic to the network

The relevant ORR criterion here is that the revenue (from all sources) that Network Rail gets when it adds traffic should equal the short-run marginal cost of the service added.

There are three main sources of variable income for Network Rail, which provide them with financial incentives to add traffic: the Volume Incentive, the Variable Usage Charge (VUC) and the capacity charge.

The Volume Incentive makes payments to Network Rail for accomodating extra traffic based on a share of the estimated benefits of that traffic. Its purpose is not cost recovery.

The Variable Usage Charge (VUC) is intended to recover wear and tear costs that vary with traffic, and hence for the purpose of this impact assessment we assume that wear and tear costs are already covered.

As discussed, the capacity charge recovers the additional Schedule 8 payments that Network Rail would make as a result of the typical increase in reactionary delays that results from adding traffic.

There may be other elements of the cost of adding traffic (e.g. timetabling costs, higher incident recovery costs etc.), that are not currently being directly recovered by any charge. These costs are also likely to vary with the level of congestion on the network. Further work would be needed to see whether the incentive effects for Network Rail of the current charge could be improved upon by recovering those costs directly.

Several responses to the consultation also stressed that the capacity charge does not provide a strong incentive to Network Rail to add traffic to the network.

#### Objective: Ensure operators take costs of service into account when using the network

Since it is based on Schedule 8 rates, the current capacity charge is not well correlated with the degree of utilisation on different parts of the network. This may be sending signals to operators about the best use of the network that do not closely relate to how busy the network is and/or how costly it is to accomodate extra services. This is a particular issue if the costs to Network Rail of adding traffic in more congested areas are higher, as we expect them to be. For example, demand may be price-inelastic in some highly congested parts of the network (e.g. London commuter areas), meaning that operators face little revenue impact from delays and hence Schedule 8 incentive rates and capacity charge rates are low in these areas. In such cases, we would expect the cost to Network Rail of accomodating traffic, and the impact on society of the consequent delay, is higher than the capacity charge rates would suggest. In the case of the capacity charge paid by freight operators, there are no geographic signals at all, since the same rate is paid across the network. However, we expect that the costs of accomodating additional freight traffic vary significantly by location; again, with costs likely to be higher in busier parts of the network.

Furthermore, the current charge is unlikley to give operators a good understanding of the costs they are causing on different parts of the network, since it is not set on the basis of those costs. RDG's review of charges reflected these points, stating: "the industry highlighted significant issues with the capacity charge, and considered that the regime did not enable sufficient industry understanding of Network Rail's cost drivers."

An additional issue with the current capacity charge regime is that open access operators and freight operators are paying reduced rates for existing traffic. If an open access or freight operator is operating above its baseline, then this arrangement does not affect the amount the operator pays when adding traffic at the margin. However, if an open access or freight operator is operating below its baseline, then at the margin it would not be facing incentives that reflect the full impact of its additional traffic on Schedule 8 payments.



# Option 1

# **Option assessment - Option 1**

#### **Summary of Option 1**

Remove the CP5 caps on the level of the capacity charge for open access, freight and charter operators.

#### **Description of Option 1**

This option would involve applying full capacity charge rates to all open access, freight and charter traffic. In other words, it would remove the existing arrangement which allows these operators to pay lower historical rates on traffic levels below a baseline. There would be no change in the capacity charge regime for franchised operators.

Other aspects of the current capacity charge regime would remain unchanged.

#### **Assessment**

#### Assessment kev

Alecce and the y	
Much worse than the do nothing	××
Slightly worse than the do nothing	*
No change relative to the do nothing	•
Meeting objectives / incremental improvement on the do nothing	✓
Meeting objectives / significant improvement on the do nothing	11

#### Objectives specific to charge or incentive regime being assessed

Outcome: Better Used

Objective: Provide accurate incentives for Network Rail to add traffic to the network

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

Because all operators pay the current rates on above baseline traffic and Network Rail is funded for traffic at the baseline, this option would have no impact on the incentives on Network Rail to add traffic to the network.

Outcome: Better Used

Objective: Ensure operators take costs of service into account when using the network

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

In our scoring of this option, we have assumed that open access and freight operators will be operating above their baseline level of traffic, meaning that the capacity charge rate paid at the margin will not change. If circumstances arise in which they are operating below their baseline, then this option would be better than the 'do nothing' option at encouraging them to take the costs of service into account when using the network - however the impact of this effect is likely to be minimal.

#### General objectives and criteria

#### Impact on operators

Group	How each group is affected
Franchised train operators	Not directly affected (although the extra revenue obtained from open access and freight operators might lead to a lower fixed track access charge or lower mark-ups, but provisions in franchise contracts would likely mean operators would experience no net change in financial position as a result).
Open access operators	Existing open access operators would pay more on existing traffic.  New open access operators would pay more on traffic below the threshold than they would under the current regime. Several responses to the consultation stressed the financial impact on open access operators of this option.
Freight operators	Existing freight operators would pay more on existing traffic.  New freight operators would pay more on traffic below the threshold than they would under the current regime. Several responses to the consultation stressed the financial impact on freight operators of this option.
Charter operators	Charter operators currently pay a reduced capacity charge rate below a specified baseline.  Under option 1 charter operators would also pay more on traffic below the current baseline.

Objective: Promote positive impacts on funders/customers

Criteria: Positive impact on the funds of Secretary of State and other funders

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

Given our assumption that marginal incentives are not changed, passenger and freight traffic levels should not be affected and, therefore, the application of higher capacity charge rates on traffic below baseline will increase the capacity charge revenue that Network Rail will receive. However, this additional revenue would lead to less being recovered through the (revised) fixed cost charges. If open access and freight operators would make greater total contributions under Option 1 than under the 'do nothing', there may be some gain to funders (and therefore taxpayers), as taxpayer-subsidised franchised services would be covering less of the network costs. However, that impact is likely to be minimal, hence the scoring given.

Objective: Promote positive impacts on funders/customers

Criteria: Passenger benefits

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

Although this option may have some impact on passengers, these would not be independent of the impacts on areas captured elsewhere in this assessment (e.g. sector sustainability). There would be no independent impacts of this option on passengers.

Objective: Promote positive impacts on funders/customers

Criteria: Freight customer benefits

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

Although this option would have some impact on freight customers, these would not be independent of the impacts on areas captured elsewhere in this assessment (e.g. sector sustainability). There would be no independent impacts of this option on freight customers.

Objective: Promote competition on the railway

Criteria: Likely to increase the number of suppliers in passenger services rail market

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
×	××	*	*	*

#### Assessment under the baseline scenario

New entrants would now be faced with a higher charge for traffic below baseline levels and would therefore find it more difficult to enter the market. Moreover, given existing open access operators will be paying a higher capacity charge (for traffic below the baseline), there is an increased likelihood of exit. However, distortions to competition between open access operators in the market might be marginally reduced as all open access operators would face equivalent charges regardless of their position relative to the baseline. Several responses stressed the financial impact on open access operators of these proposals - suggesting that it would be highly likely to dissaude new entrants, and probably cause some existing operators to stop provision.

#### States of the World sensitivities

State of the world Assessment under each state of the world		Why this state of the world would change the assessment of this option against this objective compared to the assessment under the baseline scenario		
Greater on-rail competition	**	Removing the lower rate that new open access operators currently benefit from (below a threshold) would have a greater dampening effect on the number of suppliers under this scenario; there would be more potential open access entrants considering entry who might be deterred by the higher capacity charge rate. Although the removal of any distortions in the current regime created by the caps may have some positive impact on the number of suppliers, that is likely to be marginal.		

Objective: Promote competition on the railway

Criteria: Likely to increase the number of suppliers in freight rail market

Baseline	Greater on-rail competition	franchise protection freight protection the curre		Any other change to the current state of the world
×	*	×	•	×

#### Assessment under the baseline scenario

New entrants would now be faced with a higher charge for traffic below baseline levels and would therefore find it more difficult to enter the market. Moreover, given existing freight operators will be paying a higher capacity charge (for traffic below the baseline), there is an increased likelihood of exit. As with open access operators, several responses also stressed the fincancial impact of this option on freight operators.

#### States of the World sensitivities

State of the world Assessment under each state of the world		Why this state of the world would change the assessment of this option against this objective compared to the assessment under the baseline scenario			
Greater/lesser freight protection		Higher freight protection could alleviate the negative impacts of the increased capacity charge for new entrants as well as incumbent operators.			

Objective: Promote competition on the railway

Criteria: Unlikely to threaten the sustainability of a sector

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

While there would likely be adverse impacts of this option, we do not consider these likely to be so material as to threaten the sustainability of a sector of the market, although some sectors would likely be smaller as a result of this option.

#### Other general objectives and criteria

Other general objectives and criteri		
Other general objectives and criteria	Assessment rating	Assessment under the baseline state of the world
Promote positive wider external imp	pacts	
Benefits the environment	×	Any reduction in the competitiveness of rail freight could have adverse environmental impacts
Benefits for rural proofing	•	No obvious impact.
Beneficial distributional impacts	•	No obvious impact.
Improvements in safety	•	No obvious impact.
Limit transitional impacts (i.e. impa	ct of change from	"do nothing" to new option)
Low information requirements	<b>✓</b>	Applying a uniform rate for all traffic levels would reduce information requirements for re-calibration. Under the current wash-up regime, the requirements are more substantial as there are two tiers of charges to apply, monitoring of traffic levels surpassing the baseline needs to be implemented, and there also exists a distinction between different types of freight transported.
Low transitional costs on operators (e.g. related to administrative change)	•	Little, if any, additional administrative costs.
Low volatility for operators (i.e. avoiding large step changes in levels of charge)	××	There could be a large step change in the capacity charge rates faced by open access and freight operators below their thresholds.
Low implementation difficulties for operators	✓	Operators would benefit from a simpler capacity charge implementation regime compared to the wash-up.
Low transitional costs on Network Rail (including billing system costs)	•	Transitional costs would be expected to be limited as there is already a structure in place to apply CP5 charges. The system would be transitioning to a more simplified form.
Low implementation difficulties for Network Rail	✓	This option would be easier to implement than updating the current regime.
Low transitional costs on franchise authorities and funders (including billing system costs)	•	Transitional costs would be expected to be limited as there is already a structure in place to apply CP5 charges. The system would be transitioning to a more simplified form.
Limit transaction costs (i.e. cost of	operating the nev	v option)
Low transaction costs for operators of administration/participation in the charge or incentive	<b>✓</b>	Option 1 would simplify the current capacity charge arrangements for open access and freight operators.
Low transaction costs for Network Rail of administration/participation in the charge or incentive	<b>*</b>	Network Rail currently has to do manual calculations each year to calculate the additional capacity charge owed by open access and freight operators due to the wash-up rate applying to traffic above the threshold, since these calculations cannot be performed by the billing system. Hence, this option would be easier to administer on an ongoing basis than the "do nothing" option.
Low transaction costs for funders of administration/participation in the charge or incentive	•	Not relevant for open access operators.
Ensure that the regulatory framewo	rk complies with	the law
The option can be implemented under existing legislation	•	No changes expected.
The option is consistent with any expected changes to legislation	•	No changes expected.

# **Option assessment summary - Option 1**

Outcomes and objectives specific to charge or incentive regime being assessed								
Outcome What does the outcome look like?	Objective What can ORR do to ensure delivery of this outcome?	Baseline	Greater on-rail	Reduction in franchise protection	freight protection	Any other change to the current state of the world		
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	•	•	•	•	•		
	Ensure operators take costs of service into account when using the network	•	•	•	•	•		

	General charging and incentive objective	es				
Objectives	Criteria	Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
	Positive impact on the funds of Secretary of State and other funders	•	•	•	•	•
Promote positive impacts on funders/customers	Passenger benefits	•	•	•	•	•
	Freight customer benefits	•	•	•	•	•
	Likely to increase the number of suppliers in passenger services rail market	×	××	×	×	×
Promote competition on the railway	Likely to increase the number of suppliers in freight rail market	×	×	×	•	×
	Unlikely to threaten the sustainability of a sector	•	•	•	•	•
	Benefits the environment	*				
Decreate a seiting vides systemal imposts	Benefits for rural proofing	•				
Promote positive wider external impacts	Beneficial distributional impacts	•				
	Improvements in safety	•				
	Low information requirements	✓				
	Low transitional costs on operators (e.g. related to administrative change)	•				
	Low volatility for operators (i.e. avoiding large step changes in levels of charge)	××				
Limit transitional impacts	Low implementation difficulties for operators	✓				
	Low transitional costs on Network Rail (including billing system costs)	•				
	Low implementation difficulties for Network Rail	✓				
	Low transitional costs on franchise authorities and funders (including billing system costs)	•				
Limit transaction costs (i.e. cost of operating the new option)	Low transaction costs for operators of administration/participation in the charge or incentive	✓				
	Low transaction costs for Network Rail of administration/participation in the charge or incentive	<b>√√</b>				
	Low transaction costs for funders of administration/participation in the charge or incentive	•				
Ensure that the regulatory framework	The option can be implemented under existing legislation	•				
complies with the law	The option is consistent with any expected changes to legislation	•				





# **Option assessment - Option 2**

#### **Summary of Option 2**

Remove the capacity charge and instead adjust Schedule 8 benchmarks for changes in traffic (RDG suggested option).

#### **Description of Option 2**

#### Overview

This option involves removing the capacity charge and instead adjusting Schedule 8 benchmarks for Network Rail annually to allow for the fact that extra traffic (or less traffic) has made reactionary delays more likely (or less likely).

The idea is that Network Rail would no longer incur additional Schedule 8 payments as a result of additional traffic because the benchmark would be relaxed to reflect the impact of traffic growth on reactionary delays. Consequently, the capacity charge regime would no longer be needed to recover additional Schedule 8 payments.

RDG has suggested that this option could work in practice through an annual adjustment to Network Rail's benchmarks based on comparing actual and forecast traffic at the same level that Schedule 8 is specified (e.g. service group for passenger operators) and applying a standard, formulaic calculation to work out the updated benchmark - this is the proposal we have reviewed.

#### Assumptions about implementation of option

For the purpose of analysis, it has been assumed that the formulaic adjustment to Schedule 8 benchmarks would be based on ex-ante modelling of the effect of additional traffic on reactionary delays (as, if the adjustment were instead based on the actual ex-post change in reactionary delays, then that would dampen Network Rail's incentives to minimise delays).

The analysis assumes that when traffic increases, Network Rail's benchmarks are adjusted on all affected service groups i.e. it is not just the operator that adds the traffic whose benchmarks are adjusted. This reflects the fact that additional traffic from one operator may cause additional reactionary delays in the affected part of the network with impacts on the Schedule 8 payments that Network Rail has to make to a number of different operators. If Network Rail's benchmarks were adjusted only for the operator adding the traffic, then Network Rail would not be fully protected against the effect of extra traffic on Schedule 8 payments.

#### Revenue impacts

Under the current system, forecast capacity charge revenues are netted off at price reviews from the amount that Network Rail can charge operators as a fixed charge. Under option 2, operators would no longer pay the capacity charge. This reduction in revenue for Network Rail would be partially offset by the fact that it would also make lower Schedule 8 payments when traffic increases due to a relaxed benchmark. However, as explained above, there would still be a net reduction in revenue for Network Rail. This would lead to a higher fixed track access charge and/or higher mark-ups than under the "do nothing" option.

#### **Assessment**

#### Assessment key

Assessment Rey	
Much worse than the do nothing	××
Slightly worse than the do nothing	×
No change relative to the do nothing	•
Meeting objectives / incremental improvement on the do nothing	✓
Meeting objectives / significant improvement on the do nothing	11

#### Objectives specific to charge or incentive regime being assessed

Outcome: Better Used

Objective: Provide accurate incentives for Network Rail to add traffic to the network

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

Assuming that the modelled relationship used to set the formulaic adjustment is equivalent to the modelled relationship embodied in current capacity charge rates, there would be no impact on Network Rail's incentives to add traffic. Under the 'do nothing' option Network Rail would earn capacity charge revenue to offset estimated Schedule 8 payments resulting from additional traffic. But under Option 2 there would be an equivalent net financial impact in the form of Network Rail not earning any capacity charge revenues and instead making lower Schedule 8 payments than it would otherwise have to as a result of the adjustment to the benchmark.

Outcome: Better Used

Objective: Ensure operators take costs of service into account when using the network

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
×	××	××	*	*

#### Assessment under the baseline scenario

Operators would face worse incentives than under the current capacity charging regime in cases where additional traffic from one operator causes greater reactionary delays that affect a number of operators. Currently the operator adding traffic pays a capacity charge that reflects the marginal impact of the extra traffic on Network Rail's Schedule 8 payments (as estimated by the modelling that was used to calculate capacity charge rates). By contrast, Option 2 would lead to a relaxation of Nework Rail's Schedule 8 payments for all affected operators, implicitly meaning that Network Rail is held neutral for the effect of extra traffic not solely by the operator that has added the traffic but by all affected operators jointly. There is a risk that this may over-incentivise new traffic on the network ultimately leading to reductions in punctuality. More generally, a proportion of the costs of one train operator adding services would be born by other operators. For example, in the case of a new entrant running a new service in a crowded part of the network, it seems likely that the existing operators in that part of the network would end up bearing the majority of the cost (through relaxed Network Rail benchmarks) of holding Network Rail neutral against the effect of the increased traffic on Schedule 8 payments.

#### States of the World sensitivities

State of the world	HINDOR DOCK STOTA	Why this state of the world would change the assessment of this option against this objective compared to the assessment under the baseline scenario
Greater on-rail competition	**	On-rail competition might be distorted by operators adding traffic in cases where other operators will bear the negative impact through relaxation of the Network Rail benchmarks in their track access contracts.
Reduction in franchise protection	××	The incentive effects of the capacity charge are dampened under the baseline scenario by the fact that franchised operators are held harmless by the government for changes in charges that affect services in the franchise agreement. However, under the 'Reduction in franchise protection' this would not be the case to the same extent, which means that the potential negative consequences of the perverse incentives created by Option 2 might be greater.

#### General objectives and criteria

#### Impact on operators

Group	How each group is affected
Franchised train operators	The overall impact on franchised operators would be neutral with respect to charges, but would increase with respect to risk. While they would no longer pay the capacity charge, this would be offset by reduced Schedule 8 payments from Network Rail (or increased Schedule 8 payments to Network Rail) and by an increased fixed track access charge and/or increased mark-ups. However, individual operators would be exposed to additional risks relating to the adverse financial impacts that arise should an alternative TOC add services that would prompt a reduction in their benchmark.
Open access operators	The overall impact on open access operators as a group would be neutral with respect to charges, but would increase with respect to risk. While they would no longer pay the capacity charge, this would be offset by reduced Schedule 8 payments from Network Rail (or increased Schedule 8 payments to Network Rail) and by increased mark-ups. However, individual operators would be exposed to additional risks relating to the adverse financial impacts that arise should an alternative TOC add services that would prompt a reduction in their benchmark.
Freight operators	The overall impact on freight operators would be neutral with respect to charges, but would increase with respect to risk. While they would no longer pay the capacity charge, this would be offset by reduced Schedule 8 payments from Network Rail (or increased Schedule 8 payments to Network Rail) and by increased mark-ups. However, individual operators would be exposed to additional risks relating to the adverse financial impacts that arise should an alternative TOC add services that would prompt a reduction in their benchmark.
Charter operators	The overall impact on charter operators as a group would be neutral with respect to charges, but would increase with respect to risk. While they would no longer pay the capacity charge, this would be offset by reduced Schedule 8 payments from Network Rail (or increased Schedule 8 payments to Network Rail) and by increased mark-ups. However, individual operators would be exposed to additional risks relating to the adverse financial impacts that arise should an alternative TOC add services that would prompt a reduction in their benchmark.

Objective: Promote positive impacts on funders/customers

Criteria: Positive impact on the funds of Secretary of State and other funders

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

As set out in the description of the option, the reduced revenue for Network Rail from removing the capacity charge would be offset by lower Schedule 8 payments and by an increased fixed track access charge and/or increased mark-ups, with no impact on the funds required from the Secretary of State and other funders. There may also be some increase in risk premiums in franchise bids. However this would probably be marginal.

Objective: Promote positive impacts on funders/customers

Criteria: Passenger benefits

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

Although this option may have some impact on passengers, these would not be independent of the impacts on areas captured elsewhere in this assessment (e.g. sector sustainability). There would be no independent impacts of this option on passengers.

Objective: Promote positive impacts on funders/customers

Criteria: Freight customer benefits

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

Although this option may have some impact on freight customers, these would not be independent of the impacts on areas captured elsewhere in this assessment (e.g. sector sustainability). There would be no independent impacts of this option on freight customers.

Objective: Promote competition on the railway

Criteria: Likely to increase the number of suppliers in passenger services rail market

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

New entrants would no longer need to pay the capacity charge. The costs of holding Network Rail neutral for the impact of extra traffic on Schedule 8 payments would not be borne just by the new entrant, but by all operators using the affected part of the network through relaxation of the Network Rail benchmarks in their track access contracts. Indeed, in the case of a new entrant adding a single service, the majority of the effect in terms of relaxed benchmarks would be borne by other operators. Hence, Option 2 would be likely to facilitate entry of new suppliers into the passenger services rail market. However this would mean that the costs of the new entrant are, in part, borne by the incumbents. This would tend to distort the process of competition and, at the margin, prompt inefficient entry. Overall the balance of any benefits to competition is unclear.

Objective: Promote competition on the railway

Criteria: Likely to increase the number of suppliers in freight rail market

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

New entrants would no longer need to pay the capacity charge. The costs of holding Network Rail neutral for the impact of extra traffic on Schedule 8 payments would not be borne just by the new entrant, but by all operators using the affected part of the network through relaxation of the Network Rail benchmarks in their track access contracts. Indeed, in the case of a new entrant adding a single service, the majority of the effect in terms of relaxed benchmarks would be borne by other operators. Hence, Option 2 would be likely to facilitate entry of new suppliers into the freight rail market. However this would mean that the costs of the new entrant are, in part, borne by the incumbents. This would tend to distort the process of competition and, at the margin, prompt inefficient entry. Overall the balance of any benefits to competition is unclear.

Objective: Promote competition on the railway

Criteria: Unlikely to threaten the sustainability of a sector

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

There is no reason to think that Option 2 would threaten the sustainability of the sector.

#### Other general objectives and criteria

Other general objectives and criteria						
Other general objectives and criteria	Assessment rating	Assessment under the baseline state of the world				
Promote positive wider external imp	pacts					
Benefits the environment	•	No obvious impact (particularly given that the balance of the impact on frieght operators is unclear).				
Benefits for rural proofing	•	No obvious impact.				
Beneficial distributional impacts	•	No obvious impact.				
Improvements in safety	•	No obvious impact.				
Limit transitional impacts (i.e. impa	ct of change fron	n "do nothing" to new option)				
Low information requirements	**	The information required to work out the formulaic adjustment to benchmarks would be substantial. Several responses to the consultation stressed the additional complexity this option would add to the Schedule 8 regime.				
Low transitional costs on operators (e.g. related to administrative change)	××	There would be significant costs in terms of developing agreed formulae for adjusting Schedule 8 benchmarks.				
Low volatility for operators (i.e. avoiding large step changes in levels of charge)	××	There would be a large step-change (albeit a reduction) in charges when capacity charges were removed.				
Low implementation difficulties for operators	××	There would be significant challenges in developing the formulaic adjustment to Schedule 8 benchmarks.				
Low transitional costs on Network Rail (including billing system costs)	××	There would be significant costs in terms of developing agreed formulae for adjusting Schedule 8 benchmarks.				
Low implementation difficulties for Network Rail	××	There would be significant challenges in developing the formulaic adjustment to Schedule 8 benchmarks.				
Low transitional costs on franchise authorities and funders (including billing system costs)	•	Given that franchised operators are held harmless against changes in charges, there might be some costs for franchise authorities and funders adjusting franchise arrangements to take account of the change in charges. However, these costs are expected to be small.				
Limit transaction costs (i.e. cost of	operating the ne	w option)				
Low transaction costs for operators of administration/participation in the charge or incentive	×	Applying the adjustment factor each period to calculate the new level of Network Rail's benchmarks would add complexity.				
Low transaction costs for Network Rail of administration/participation in the charge or incentive	×	Applying the adjustment factor each period to calculate the new level of Network Rail's benchmarks would add complexity.				
Low transaction costs for funders of administration/participation in the charge or incentive	•	No obvious impact.				
Ensure that the regulatory framewo	rk complies with	the law				
The option can be implemented under existing legislation	•	No changes expected.				
The option is consistent with any expected changes to legislation	•	No changes expected.				
	L	I.				

# **Option assessment summary - Option 2**

Outcomes a	Outcomes and objectives specific to charge or incentive regime being assessed						
Outcome What does the outcome look like?	Objective What can ORR do to ensure delivery of this outcome?	Baseline	Greater on-rail	Reduction in franchise protection	freight protection	Any other change to the current state of the world	
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	•	•	•	•	•	
	Ensure operators take costs of service into account when using the network	*	××	××	×	×	

	General charging and incentive objective	es				
Objectives	Criteria	Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
	Positive impact on the funds of Secretary of State and other funders	•	•	•	•	•
Promote positive impacts on funders/customers	Passenger benefits	•	•	•	•	•
	Freight customer benefits	•	•	•	•	•
	Likely to increase the number of suppliers in passenger services rail market	•	•	•	•	•
Promote competition on the railway	Likely to increase the number of suppliers in freight rail market	•	•	•	•	•
	Unlikely to threaten the sustainability of a sector	•	•	•	•	•
	Benefits the environment	•				
Promote positive wider external impacts	Benefits for rural proofing	•				
Fromote positive wider external impacts	Beneficial distributional impacts	•				
	Improvements in safety	•				
	Low information requirements	××				
	Low transitional costs on operators (e.g. related to administrative change)	××				
	Low volatility for operators (i.e. avoiding large step changes in levels of charge)	××				
Limit transitional impacts	Low implementation difficulties for operators	××				
	Low transitional costs on Network Rail (including billing system costs)	××				
	Low implementation difficulties for Network Rail	××				
	Low transitional costs on franchise authorities and funders (including billing system costs)	•				
	Low transaction costs for operators of administration/participation in the charge or incentive	×				
Limit transaction costs (i.e. cost of operating the new option)	Low transaction costs for Network Rail of administration/participation in the charge or incentive	×				
	Low transaction costs for funders of administration/participation in the charge or incentive	•				
Ensure that the regulatory framework	The option can be implemented under existing legislation	•				
complies with the law	The option is consistent with any expected changes to legislation	•				





# **Option assessment - Option 3**

#### **Summary of Option 3**

Remove the capacity charge, which would increase the potential mark-up applied under the revised fixed costs charge paid by operators.

#### **Description of Option 3**

This option would involve removing the capacity charge, with the reduction in revenue to Network Rail offset by an increase in the revenue recovered through (revised) fixed cost charges.

#### **Assessment**

#### Assessment key

Much worse than the do nothing	××
Slightly worse than the do nothing	×
No change relative to the do nothing	•
Meeting objectives / incremental improvement on the do nothing	✓
Meeting objectives / significant improvement on the do nothing	√√

#### Objectives specific to charge or incentive regime being assessed

Outcome: Better Used

Objective: Provide accurate incentives for Network Rail to add traffic to the network

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world	
•	•	•	•	•	

#### Assessment under the baseline scenario

Under this option, Network Rail would no longer directly recover the Schedule 8 costs usually associated with adding traffic. However, additional revenues would be recovered through mark-ups - this may result in Network Rail recovering more from some kinds of operators and less from others.

The precise form of these mark-ups has not yet been determined. The charges are likely to reflect two things: 1) the fixed cost allocated to that part of the network; and (2) an assessment of whether the "market can bear" the implied allocation of cost. Therefore, it is likely that the fixed charges will tend to be higher where (1) costs are higher, and/or (2) where the ability of the market to bear charges is higher. To the extent that costs and/or ability to bear charges are higher in congested parts of the network, this will mean that the mark-ups may vary more with congestion than the current charge - potentially improving on Network Rail's incentives to add traffic. However, given the uncertainty around the calibration of the mark-ups we have scored it as 'no change relative to the do nothing' - but we would expect to update this assessment as our work on fixed charges progresses.

Some responses to the consultation also stressed the importance of preserving incentives on Network Rail in the abscence of the capacity charge.

Outcome: Better Used

Objective: Ensure operators take costs of service into account when using the network

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world	
•	•	•	•	•	

#### Assessment under the baseline scenario

Under this option, operators would no longer directly pay for the Schedule 8 impact that additional traffic typically has. However, as discussed, all operators would be expected to make contributions to fixed costs, and these would be higher if the capacity charge were removed. The precise form of these mark-ups has not yet been determined. The charges are likely to reflect two things: 1) the fixed cost allocated to that part of the network; and (2) an assessment of whether the 'market can bear' the implied allocation of cost. Therefore, it is likely that the fixed charges will tend to be higher where (1) costs are higher, and/or (2) where the ability of the market to bear charges is higher. To the extent that costs and/or ability to bear charges are higher in congested parts of the network, this will mean that the mark-ups may vary more with congestion than the current charge - potentially improving on the incentives operators face about use of the network - e.g. incentivising them to avoid the more congested areas. However, given the uncertainty around the calibration of the mark-ups we have scored it as 'no change relative to the do nothing' - we would expect to update this assessment as our work on fixed charges progresses.

#### General objectives and criteria

#### Impact on operators

Group	How each group is affected
Franchised train operators	Protections in franchised contracts would likely mean that franchised operators were not exposed to the effects of these changes on their core franchised services. They may be affected by different charges for any additional serivces, outside of their core franchise.
Open access operators	Given we are looking at applying mark-ups above cost directly incurred (subject to market can bear tests) for open access services regardless of which capacity charge option is pursued (i.e. even if the 'do nothing' option is pursued), the removal of the capacity charge would leave open access operators in a similair position as under the 'do nothing'. However, there may be a change in charges across services and locations and this may have different overall impacts on individual operators.
Freight operators	Given that the mark-up (subject to market can bear tests) would anyway be being applied even if the 'do nothing' option were pursued, the removal of the capacity charge would leave freight operators in a similair position to under the 'do nothing'. However, there may be a change in charges across services and locations and this may have different overall impacts on individual operators.
Charter operators	Given that the mark-up (subject to market can bear tests) would anyway be being applied even if the 'do nothing' option were pursued, the removal of the capacity charge would leave charter operators in a similair position to under the 'do nothing'. However, there may be a change in charges across services and locations and this may have different overall impacts on individual operators.

Objective: Promote positive impacts on funders/customers

Criteria: Positive impact on the funds of Secretary of State and other funders

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
•	•	•	•	•

#### Assessment under the baseline scenario

Option 3 would not require additional funding from SoS and other funders as the amount lost from the capacity charge would be recovered through higher mark-ups charged to operators and/or through a higher fixed track access charge.

Objective: Promote positive impacts on funders/customers

Criteria: Passenger benefits

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world	
•	•	•	•	•	

#### Assessment under the baseline scenario

Although this option may have some impact on passengers, these would not be independent of the impacts on areas captured elsewhere in this assessment (e.g. sector sustainability). There would be no independent impacts of this option on passengers.

Objective: Promote positive impacts on funders/customers

Criteria: Freight customer benefits

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world			
•	•	•	•	•			

#### Assessment under the baseline scenario

Although this option may have some impact on freight customers, these would not be independent of the impacts on areas captured elsewhere in this assessment (e.g. sector sustainability). There would be no independent impacts of this option on freight customers.

Objective: Promote competition on the railway

Criteria: Likely to increase the number of suppliers in passenger services rail market

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world			
•	•	•	•	•			

#### Assessment under the baseline scenario

Removing the capacity charge would reduce the cost of access to the network. However, since the mark-ups would likely adjust by similar amounts the net change in access costs would not be significant.

Objective: Promote competition on the railway

Criteria: Likely to increase the number of suppliers in freight rail market

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world	
•	•	•	•	•	

#### Assessment under the baseline scenario

Removing the capacity charge would reduce the cost of access to the network. However, since the mark-ups would likely adjust by similar amounts the net change in access costs would not be significant.

Objective: Promote competition on the railway

Criteria: Unlikely to threaten the sustainability of a sector

Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world		
•	•	•	•	•		

#### Assessment under the baseline scenario

There is no reason to think that Option 3 would threaten the sustainability of the sector as the total to be recovered from any given sector would be similar to that recovered under the 'do nothing' option.

#### Other general objectives and criteria

Other general objectives and criteria	Assessment rating	Assessment under the baseline state of the world
Promote positive wider external imp	acts	
Benefits the environment	•	No obvious impact.
Benefits for rural proofing	•	No obvious impact.
Beneficial distributional impacts	•	No obvious impact.
Improvements in safety	•	No obvious impact.
Limit transitional impacts (i.e. impacts	ct of change from	"do nothing" to new option)
Low information requirements	✓	This option would reduce information requirements associated with continuing the capacity charge regime. The mark-ups are assumed to be happening anyway (see discussion of 'do nothing' option), so raising more revenue through these mark-ups is assumed not to lead to extra information requirements.
Low transitional costs on operators (e.g. related to administrative change)	✓	Operators would no longer need to ensure their systems are set up to process the capacity charge.
Low volatility for operators (i.e. avoiding large step changes in levels of charge)	×	The removal of the capacity charge would clearly lead to a step-change in charges. While in aggregate this would be offset by increases in the fixed cost charges, there may still be net changes for individual operators.
Low implementation difficulties for operators	✓	Operators would no longer need to ensure their systems are set up to process the capacity charge.
Low transitional costs on Network Rail (including billing system costs)	•	The mark-ups are assumed to be happening anyway (see discussion of 'do nothing' option), so there would be no additional transitional costs on Network Rail.
Low implementation difficulties for Network Rail	•	The mark-ups are assumed to be happening anyway (see discussion of 'do nothing' option), so there would be no additional implementation difficulties for Network Rail.
Low transitional costs on franchise authorities and funders (including billing system costs)	•	Given franchise operators are held harmless against changes in charges, there might be some costs to franchise authorities and funders associated with adjusting franchises for the changes in charges. However, these costs are expected to be small.
Limit transaction costs (i.e. cost of	operating the new	option)
Low transaction costs for operators of administration/participation in the charge or incentive	✓	This option would remove the transactions costs associated with the capacity charge. Given that mark-ups are assumed to be happening anyway (see discussion of 'do nothing' option), there would be no change in the transactions costs associated with mark-ups. Hence, overall there would be a reduction in transactions costs for operators.
Low transaction costs for Network Rail of administration/participation in the charge or incentive	✓	This option would remove the transactions costs associated with the capacity charge. Given that mark-ups are assumed to be happening anyway (see discussion of 'do nothing' option), there would be no change in the transactions costs associated with mark-ups. Hence, overall there would be a reduction in transactions costs for Network Rail.
Low transaction costs for funders of administration/participation in the charge or incentive	•	No obvious impact.
Ensure that the regulatory framework	rk complies with t	he law
The option can be implemented under existing legislation	•	No changes expected.
The option is consistent with any expected changes to legislation	•	No changes expected.

# **Option assessment summary - Option 3**

Outcomes and objectives specific to charge or incentive regime being assessed								
Outcome What does the outcome look like?	Objective What can ORR do to ensure delivery of this outcome?	Baseline	Greater on-rail	Reduction in franchise protection	freight protection	Any other change to the current state of the world		
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	•	•	•	•	•		
	Ensure operators take costs of service into account when using the network	•	•	•	•	•		

	General charging and incentive objectives					
Objectives	Criteria	Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
	Positive impact on the funds of Secretary of State and other funders	•	•	•	•	•
Promote positive impacts on funders/customers	Passenger benefits	•	•	•	•	•
	Freight customer benefits	•	•	•	•	•
Promote competition on the railway	Likely to increase the number of suppliers in passenger services rail market	•	•	•	•	•
	Likely to increase the number of suppliers in freight rail market	•	•	•	•	•
	Unlikely to threaten the sustainability of a sector	•	•	•	•	•
Promote positive wider external impacts	Benefits the environment	•				
	Benefits for rural proofing	•				
	Beneficial distributional impacts	•				
	Improvements in safety	•				
	Low information requirements	✓				
	Low transitional costs on operators (e.g. related to administrative change)	✓				
	Low volatility for operators (i.e. avoiding large step changes in levels of charge)	×				
Limit transitional impacts	Low implementation difficulties for operators	✓				
	Low transitional costs on Network Rail (including billing system costs)	•				
	Low implementation difficulties for Network Rail	•				
	Low transitional costs on franchise authorities and funders (including billing system costs)	•				
Limit transaction costs (i.e. cost of operating the new option)	Low transaction costs for operators of administration/participation in the charge or incentive	✓				
	Low transaction costs for Network Rail of administration/participation in the charge or incentive	✓				
	Low transaction costs for funders of administration/participation in the charge or incentive	•				
Ensure that the regulatory framework	The option can be implemented under existing legislation	•				
complies with the law	The option is consistent with any expected changes to legislation	•				





Summary of option assessments

# Option assessment summary - Baseline

	Best option und	ler this st	ate of the	world
Overall impacts are not certain at this stage, but options 1 & 3 perform	'Do nothing'	Option 1	Option 2	Option 3
better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.	0	0	0	•

Outcomes and objectives specific to charge or incentive regime being assessed				
Outcome What does the outcome look like?	Objective What can ORR do to ensure delivery of this outcome?	Option 1	Option 2	Option 3
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	•	•	•
	Ensure operators take costs of service into account when using the network	•	×	•

General charging and incentive objectives				
Objectives	Criteria	Option 1	Option 2	Option 3
	Positive impact on the funds of Secretary of State and other funders	•	•	•
Promote positive impacts on funders/customers	Passenger benefits	•	•	•
	Freight customer benefits	•	•	•
	Likely to increase the number of suppliers in passenger services rail market	×	•	•
romote competition on the railway	Likely to increase the number of suppliers in freight rail market	×	•	•
	Unlikely to threaten the sustainability of a sector	•	•	•
Promote positive wider external impacts	Benefits the environment	*	•	•
	Benefits for rural proofing	•	•	•
	Beneficial distributional impacts	•	•	•
	Improvements in safety	•	•	•
	Low information requirements	✓	××	✓
	Low transitional costs on operators (e.g. related to administrative change)	•	××	✓
	Low volatility for operators (i.e. avoiding large step changes in levels of charge)	××	××	×
Limit transitional impacts	Low implementation difficulties for operators	✓	××	✓
	Low transitional costs on Network Rail (including billing system costs)	•	××	•
	Low implementation difficulties for Network Rail	✓	××	•
	Low transitional costs on franchise authorities and funders (including billing system costs)	•	•	•
	Low transaction costs for operators of administration/participation in the charge or incentive	✓	×	✓
Limit transaction costs (i.e. cost of operating the new option)	Low transaction costs for Network Rail of administration/participation in the charge or incentive	<b>√√</b>	×	✓
	Low transaction costs for funders of administration/participation in the charge or incentive	•	•	•
Ensure that the regulatory framework complies with the	The option can be implemented under existing legislation	•	•	•
law	The option is consistent with any expected changes to legislation	•	•	•

# Option assessment summary - Greater on-rail competition

	Best option und	ler this st	ate of the	world
Overall impacts are not certain at this stage, but options 1 & 3 perform	'Do nothing'	Option 1	Option 2	Option 3
better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.	0	0	0	•

Outcomes and objectives specific to charge or incentive regime being assessed				
Outcome What does the outcome look like?	Objective What can ORR do to ensure delivery of this outcome?	Option 1	Option 2	Option 3
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	•	•	•
	Ensure operators take costs of service into account when using the network	•	xx	•

General charging and incentive objectives				
Objectives	Criteria	Option 1	Option 2	Option 3
Promote positive impacts on funders/customers	Positive impact on the funds of Secretary of State and other funders	•	•	•
	Passenger benefits	•	•	•
	Freight customer benefits	•	•	•
Promote competition on the railway	Likely to increase the number of suppliers in passenger services rail market	××	•	•
	Likely to increase the number of suppliers in freight rail market	×	•	•
	Unlikely to threaten the sustainability of a sector	•	•	•

# Option assessment summary - Reduction in franchise protection

	Best option und	ler this st	ate of the	world
Overall impacts are not certain at this stage, but options 1 & 3 perform	'Do nothing'	Option 1	Option 2	Option 3
better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.	0	0	0	•

Outcomes and objectives specific to charge or incentive regime being assessed				
Outcome What does the outcome look like?	Objective What can ORR do to ensure delivery of this outcome?	Option 1	Option 2	Option 3
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	•	•	•
	Ensure operators take costs of service into account when using the network	•	xx	•

General charging and incentive objectives					
Objectives	Criteria	Option 1	Option 2	Option 3	
Promote positive impacts on funders/customers	Positive impact on the funds of Secretary of State and other funders	•	•	•	
	Passenger benefits	•	•	•	
	Freight customer benefits	•	•	•	
Promote competition on the railway	Likely to increase the number of suppliers in passenger services rail market	×	•	•	
	Likely to increase the number of suppliers in freight rail market	×	•	•	
	Unlikely to threaten the sustainability of a sector	•	•	•	

# Option assessment summary - Greater/lesser freight protection

	Best option und	ler this st	ate of the	world
Overall impacts are not certain at this stage, but options 1 & 3 perform	'Do nothing'	Option 1	Option 2	Option 3
better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.	0	0	0	•

Outcomes and objectives specific to charge or incentive regime being assessed				
Outcome What does the outcome look like?	Objective What can ORR do to ensure delivery of this outcome?	Option 1	Option 2	Option 3
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	•	•	•
	Ensure operators take costs of service into account when using the network	•	×	•

General charging and incentive objectives				
Objectives	Criteria	Option 1	Option 2	Option 3
Promote positive impacts on funders/customers	Positive impact on the funds of Secretary of State and other funders	•	•	•
	Passenger benefits	•	•	•
	Freight customer benefits	•	•	•
Promote competition on the railway	Likely to increase the number of suppliers in passenger services rail market	*	•	•
	Likely to increase the number of suppliers in freight rail market	•	•	•
	Unlikely to threaten the sustainability of a sector	•	•	•

### Option assessment summary - Any other change to the current state of the world

	Best option und	ler this st	ate of the	world
Overall impacts are not certain at this stage, but options 1 & 3 perform better, and option 3 has the potential to deliver more significant improvements if reforms to fixed charges create suitable incentive effects.	'Do nothing'	Option 1	Option 2	Option 3
	0	0	0	•

Outcomes and objectives specific to charge or incentive regime being assessed						
Outcome What does the outcome look like?	Objective What can ORR do to ensure delivery of this outcome?	Option 1	Option 2	Option 3		
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	•	•	•		
	Ensure operators take costs of service into account when using the network	•	*	•		

General charging and incentive objectives						
Objectives	Criteria		Option 2	Option 3		
Promote positive impacts on funders/customers	Positive impact on the funds of Secretary of State and other funders	•	•	•		
	Passenger benefits	•	•	•		
	Freight customer benefits	•	•	•		
Promote competition on the railway	Likely to increase the number of suppliers in passenger services rail market	×	•	•		
	Likely to increase the number of suppliers in freight rail market	*	•	•		
	Unlikely to threaten the sustainability of a sector	•	•	•		

### Option assessment summary - Preferred option under each state of the world

Outcomes and objectives specific to charge or incentive regime being assessed						
Outcome What does the outcome look like?	Objective What can ORR do to ensure delivery of this outcome?	Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser	Any other change to the current state of the world
Best option under this state of the world		Option 3	Option 3	Option 3	Option 3	Option 3
Network Rail and operators find ways to improve network use and accommodate new services	Provide accurate incentives for Network Rail to add traffic to the network	•	•	•	•	•
	Ensure operators take costs of service into account when using the network	•	•	•	•	•

General charging and incentive objectives						
Objectives	Criteria	Baseline	Greater on-rail competition	Reduction in franchise protection	Greater/lesser freight protection	Any other change to the current state of the world
Promote positive impacts on funders/customers	Positive impact on the funds of Secretary of State and other funders	•	•	•	•	•
	Passenger benefits	•	•	•	•	•
	Freight customer benefits	•	•	•	•	•
	Likely to increase the number of suppliers in passenger services rail market	•	•	•	•	•
Promote competition on the railway	Likely to increase the number of suppliers in freight rail market	•	•	•	•	•
	Unlikely to threaten the sustainability of a sector	•	•	•	•	•
	Benefits the environment	•				
Powerte and the section of the section of	Benefits for rural proofing	•				
Promote positive wider external impacts	Beneficial distributional impacts	•				
	Improvements in safety	•				
	Low information requirements	✓				
	Low transitional costs on operators (e.g. related to administrative change)	✓				
	Low volatility for operators (i.e. avoiding large step changes in levels of charge)	×				
Limit transitional impacts	Low implementation difficulties for operators	✓				
	Low transitional costs on Network Rail (including billing system costs)	•				
	Low implementation difficulties for Network Rail	•				
	Low transitional costs on franchise authorities and funders (including billing system costs)	•				
Limit transaction costs (i.e. cost of operating the new option)	Low transaction costs for operators of administration/participation in the charge or incentive	✓				
	Low transaction costs for Network Rail of administration/participation in the charge or incentive	✓				
	Low transaction costs for funders of administration/participation in the charge or incentive	•				
Ensure that the regulatory framework complies with the	The option can be implemented under existing legislation	•				
law	The option is consistent with any expected changes to legislation	•				