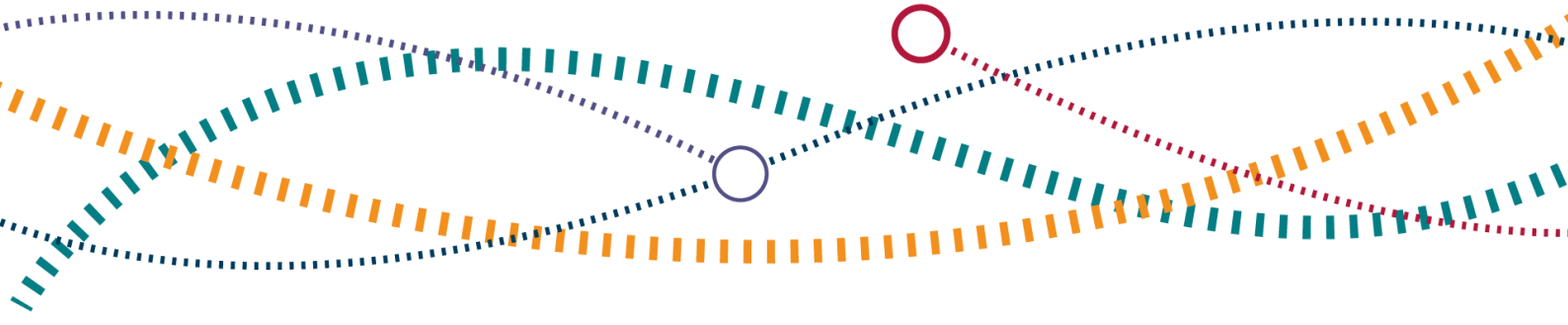
PR23 final determination:

Policy position – impact assessments

31 October 2023



About this document

This document consolidates the impact assessments undertaken as part of our final determination for access charges and incentives.

PR23 determines what the infrastructure manager for the national rail network, Network Rail, is expected to deliver with respect to its operation, support, maintenance and renewal (OSMR) of the network during control period 7 (CP7), which will run from 1 April 2024 to 31 March 2029, and how the available funding should be best used to support this.

This strongly influences:

- the service that passengers and freight customers receive and, together with taxpayers, ultimately pay for; and
- the charges that Network Rail's passenger, freight and charter train operator customers pay to access its track and stations during CP7.

Our final determination sets out:

- our decisions on Network Rail's outcome delivery and its planned expenditure to secure the condition and reliability of the network;
- changes to access charges and the incentives framework; and
- relevant policies on the financial framework, managing change and holding to account.

In addition to **this document**, we have also published as part of our final determination:

Document type	Details
Summary of conclusions and overviews	Our decisions on what Network Rail will need to deliver and how funding should be allocated: • Summary of conclusions and overview for England & Wales • Summary of conclusions and settlement for Scotland

Document type	Details
Consolidated decisions	A summary of our final decisions across Great Britain
Introduction	An overview of PR23 and background to our final determination
Settlement documents	Detailed final decisions for the System Operator and each of Network Rail's regions in England & Wales: • Eastern region • North West & Central region • Southern region • Wales & Western region See our summary of conclusions and settlement document for detailed information for Scotland.
Supporting documents	Technical assessments of: • Health and safety • Outcomes • Sustainable and efficient costs • National Functions • Other income
Policy positions	How we intend to regulate Network Rail during CP7 in relation to: • Financial framework • Access charges • Schedules 4 and 8 incentives regimes • Managing change • Holding to account With the exceptions of managing change and holding to account, our policy position documents include our assessment of stakeholder views on our proposals. Stakeholder views for managing change and holding to account are published in a separate document.

Document type	Details
Impact assessments	A consolidated set of assessments of the impact of our final policies on access charges and contractual incentives on affected parties

Next steps

We will now implement our final determination. Implementation is the process through which we amend operators' track and station access contracts to give effect to new access charges and incentives (such as Schedule 8 benchmarks and payment rates) determined through the periodic review. We expect to issue our review notices in December 2023 and, subject to Network Rail's acceptance, issue notices of agreement and review implementation notices in time for CP7 to commence from 1 April 2024.

We expect Network Rail to publish a delivery plan for CP7 that is consistent with our final determination. We have published a notice alongside our final determination which sets out expectations for the scope and timing of the delivery plan.

Contents

1. Introduction

1.1 This document consolidates the impact assessments undertaken as part of our final determination for access charges and incentives. The impact assessments use a structured process for considering the implications of our decisions in our final determination on our PR23 objectives and stakeholders. We have utilised impact assessments in our policy documents for access charges and incentives. Impact assessments have been produced in instances that involve a change in policy in the design of the regimes, and not where policy remains unchanged.

1.2 The following sections of this document contain the impact assessments for our final determination policies on:

- Schedule 4 opt-out mechanism.
- Schedule 8 ‘switch-off’ mechanism for operators contracted by Great British Railways (GBR).
- The provision to allow for recalibration of Schedule 8 within control periods.
- An infrastructure cost charge (ICC) for airport services.
- Capping and phasing-in variable use charge (VUC) increases for freight and charter operators.
- The availability of modelled electricity for traction (EC4T) consumption rates.
- Amending station long term charge categories
- Amending the station long term charge methodology for new stations

2. Impact assessment of Schedule 4 opt-out mechanism

Background	The Schedule 4 possessions regime compensates train operators for the financial impacts of planned disruption to train services. Such disruption occurs when Network Rail restricts access to the network (known as a possession) to, for example, carry out engineering works. The regime has two key functions: • to compensate train operators for the financial impact of planned service disruption caused by Network Rail when it takes possession of the network; and • to incentivise Network Rail to reduce the amount of service disruption due to possessions and to provide timely advance notice to users of its network. There are separate arrangements for passenger and freight operators. Publicly-contracted passenger operators receive full Schedule 4 compensation in return for paying an access charge supplement (ACS), which funds passenger Schedule 4 compensation payments. Open access passenger operators can elect to pay the ACS and receive full Schedule 4 compensation. Alternatively, they can choose not to pay the ACS and receive compensation for only the most disruptive possessions. Currently, no open access operators have chosen to pay the ACS. Freight operators receive set levels of compensation and pay no ACS. Freight operators have the option to pay an ACS and receive higher compensation, but no operators currently do so.
Policy being assessed	Recent changes to rail passenger contracts have resulted in operators potentially having different requirements regarding possession compensation arrangements. Operators on concession-style contracts, which are exposed to fewer financial

	risks than under traditional franchise contracts, may decide that they no longer require protection against the financial risks associated with possessions. However, other operators, notably freight and open access operators, continue to be fully exposed to commercial risks and incentives and may seek protection from the impact of possessions on their businesses. To reflect differing contractual arrangements for operators, and to accommodate further developments such as rail reform – whereby the UK Government has proposed to create Great British Railways (GBR) as a vertically integrated entity comprising a franchise body and infrastructure manager – we are proposing to allow operators to opt out of Schedule 4 in CP7. We are limiting the option for publicly-contracted operators to opt out of Schedule 4 to a complete opt-out, i.e. covering both the revenue and cost compensation components. This is in the interest of simplicity to avoid having multiple Schedule 4 regimes. Open access operators will have the option, as now, to opt in fully to Schedule 4 (paying an ACS) or receive compensation for only the most disruptive possessions and sustained planned disruption (without an ACS). Freight operators will also be able to opt out, or continue with current levels of compensation, or (as now) receive higher compensation in return for an ACS. The decision to opt in or out will last for the whole of CP7, apart from in specific circumstances set out in our final determination document.
(1) Network Rail	**Financial impacts of payment flows:** While Network Rail's expected costs will reduce as a result of paying out less Schedule 4 compensation (due to operators opting out), this would be expected to be offset by reduced income from the ACS. Overall, the expected financial impact would be neutral. **Administrative burden:** There being fewer operators within the Schedule 4 regime will reduce the day-to-day administrative

	burden of the regime on Network Rail, especially the negotiated aspects of Schedule 4. **Commercial impacts:** If operators opt out of Schedule 4, this could allow Network Rail/GBR and operators to enter into alternative arrangements relating to possessions compensation. **Incentives impacts:** As a result of no longer making compensation payments to opted-out operators, Network Rail would have reduced financial incentives to plan possessions efficiently and thus minimise disruption. There is a risk that Network Rail could be incentivised to discriminate against operators that have opted out, as it no longer needs to pay these operators compensation. To mitigate any loss of financial incentives on Network Rail, ORR will in CP7 increase monitoring of Network Rail's performance across network availability, possession planning and possession efficiency. We intend that these measures will impose strong reputational incentives on Network Rail to plan possessions efficiently. Once publicly-funded operators are contracted by GBR, GBR will face internalised incentives to manage possessions efficiently, since it will be exposed to the revenue impacts of disruptions caused to its own operators. The opt-out mechanism can simplify contractual arrangements under GBR should the UK Government proceed with rail reform plans to create GBR as a new body.
2) Passenger operators (and commissioning authorities)	**Commercial impacts / flexibility:** An opt-out mechanism will provide operators with greater flexibility to reflect their own commercial needs in deciding on the most appropriate compensation arrangements for possessions. There is a risk of impacts on operators if, as described above, Network Rail has less effective or perverse incentives on possession planning. However, we expect such risks to be mitigated by greater monitoring of Network Rail. **Administrative burden:** Operators that opt out will no longer need to enter into the negotiated elements of Schedule 4, reducing the potential administrative burden. **Funding impacts:** To the extent that operators opt out, the arrangements will reduce the degree of 'money go round' whereby DfT (and other franchise bodies) fund publicly-contracted operators for the costs of the ACS, which operators then receive back in

	Schedule 4 compensation, and effectively pass pack to the franchise body through the terms of their concession-style agreements.
(3) Freight operators	We do not anticipate that any freight operators would wish to opt out of Schedule 4, since it currently provides them with compensation without them having to pay an ACS. However, the option to opt out is available to freight operators, which may be attractive if alternative arrangements are made available to them, for example in a future reformed industry. Any opt-out decision would remain at the choice of freight operators. There will remain the option, as in CP6, for freight operators to request additional Schedule 4 compensation in return for an ACS, but our understanding is that no freight operators have requested this.
Decision	To introduce a Schedule 4 opt-out/opt-in mechanism for all operators in CP7.

3. Impact assessment of Schedule 8 'switch-off' mechanism for operators contracted by Great British Railways

Background	The Schedule 8 performance regime places incentives on Network Rail and train operators to limit the disruption they cause and, therefore, to improve network performance. Through the regime, train operators receive compensation when Network Rail's performance is worse than its benchmark and pay Network Rail a bonus when it performs better than its benchmark. Schedule 8 is calibrated to be 'financially neutral on expectation', meaning that Network Rail and operators would not make or receive payments if prior expectations were met in terms of train performance. At present, all train operators are exposed to Schedule 8 through their track access contracts.
Policy being assessed	The UK Government has proposed to create Great British Railways (GBR) as a vertically integrated entity comprising a franchise body and infrastructure manager. ORR is proposing to allow for the removal of relevant Schedule 8 payments between GBR and its contracted operators, in the event that there is sufficient legislative change to permit this. This can simplify contractual arrangements under GBR should the UK Government proceed with rail reform plans to create GBR as a new body. The proposal is that, for each of GBR's future contracted operators, a new conditional clause in Schedule 8 will state that no relevant Schedule 8 payments will be made between GBR and GBR operators. This clause would take effect if: (1) the legal requirements for a performance scheme in the 2016 Regulations are changed, and (2) ORR issues a notice confirming that the relevant new paragraphs within Schedule 8 shall take effect (this is known here as the 'switch-off' mechanism). If there is no

	legislative change, payments under the Schedule 8 performance regime would continue to apply between the infrastructure manager (whether Network Rail or GBR) and all operators. There is still considerable uncertainty as to whether GBR will be created, and the form it will take. In assessing impacts, we focus on the impacts that we expect would arise if the 'switch-off' mechanism has been given effect. ORR will apply conditions before giving effect to the mechanism, including ensuring that a sufficiently robust regulatory and incentive framework is in place to promote improvements in train service performance (see final determination policy position on Incentives).
(1) GBR	**Financial impacts of payment flows:** Once the 'switch-off' mechanism has been given effect, relevant Schedule 8 payments between GBR and its future contracted operators will cease. This will simplify financial arrangements for GBR and limit the extent of volatility in the budgets of GBR and its operators. Payments between GBR and non-GBR operators would be unchanged. **Administrative burden**: Giving effect to the 'switch-off' mechanism may simplify the payment calculation process given that it will be used for a reduced number of operators. Moreover, it will allow GBR to establish its own performance arrangements without the risk of conflicting with Schedule 8. However, delay attribution will continue across the whole system. Therefore, the change in administration costs is likely to be limited. **Incentives impacts:** Overall, we do not expect adverse incentive impacts from the 'switch-off' mechanism, as it will only be given effect if we are satisfied that a sufficiently robust regulatory and incentive framework is in place. On its own, the 'switching off' of relevant Schedule 8 payments may reduce GBR's financial incentives. However, GBR would be expected to be held to account across infrastructure management and train services, which will be a strong reputational (non-financial) incentive. Depending on exact arrangements with passenger revenues, GBR will also have commercial incentives to run a high-performing railway, so as to attract and retain passengers. Further, GBR would be exposed to Schedule 8 payments towards

	non-GBR operators, so there would be a strong financial incentive for GBR to limit the disruption caused by both its infrastructure and contracted train services.
(2) GBR's future contracted operators	**Incentive impacts:** While relevant Schedule 8 payments would no longer take place between GBR and its contracted operators, we would expect these operators to be exposed to financial performance incentives in their service agreements with GBR. Therefore, we would expect that the operators would still have incentives to run high-performing services. Our understanding is that, at present, publicly-contracted operators are largely 'held neutral' to Schedule 8 by their franchise authorities, i.e. the operators are not financially exposed to the regimes or their exposure is significantly limited. This means that the introduction of the 'switch-off' mechanism would, for publicly-contracted operators, have limited incentive impacts relative to the current arrangements.
(3) Non-GBR passenger operators	**Open access operators:** We do not expect any impacts on open access operators as a result of switching off payments for GBR's contracted operators. Interactions between open access operators and Network Rail will remain fully covered by Schedule 8, as is the case today. As noted above, we consider that any impact on GBR's incentives to deliver train performance will be limited, so we would not expect adverse consequences for train performance. **Operators contracted by devolved authorities:** The scope of any legislative change is expected to be limited to GBR's future contracted operators, so we are proposing to limit the switch-off mechanism to these operators. As such, we are not expecting any significant impacts for these operators. And, as for open access operators, we would not expect adverse consequences for train performance delivered to operators contracted by devolved bodies. In relation to train services contracted or operated by Transport Scotland, if legislative amendments remove the requirement for a performance scheme from Transport Scotland's operators, GBR and each operator could jointly agree upon a change to their track access contract to include the 'switch-off' mechanism. This would

	be subject to ORR's approval. The analysis for such a scenario would be in line with the analysis for 'GBR' and 'GBR's future contracted operators' set out above.
(4) Freight operators	**Freight operators** will still be fully exposed to Schedule 8 performance incentives, and all payments will continue to reflect the financial impacts of delay. We do not anticipate any adverse 'indirect' impacts on freight operators from the absence of Schedule 8 payments between GBR and its operators. GBR would still face the same Schedule 8 incentives to limit delays caused to freight operators, whether caused by itself as an infrastructure manager or by its contracted operators. In addition, the non-financial performance incentives described in the 'GBR' section above will limit the risk that performance delivered to freight operators deteriorates.
Decision	To introduce a 'switch-off mechanism' to allow for the removal of relevant Schedule 8 payments between GBR and its contracted operators, if GBR is established, if there is sufficient legislative change to permit the removal of payments and provided that there is a sufficiently robust incentive framework in place.

4. Impact assessment of provision to allow for recalibration of Schedule 8 within control periods

Background	The Schedule 8 performance regime places incentives on Network Rail and train operators to limit the disruption they cause and, therefore, to improve network performance. Through the regime, train operators receive compensation when Network Rail's performance is worse than its benchmark and pay Network Rail a bonus when it performs better than its benchmark. Schedule 8 is calibrated to be 'financially neutral on expectation', meaning that Network Rail and operators would not make or receive payments if prior expectations were met in terms of train performance.
Policy being assessed	Schedule 8 parameters are currently fixed for the duration of a control period. This means, for example, that benchmarks do not change during the control period following external shocks such as changes to traffic volumes. This potentially means that the regime is not accurately calibrated if circumstances change during the control period, which could result in large and volatile payment flows between parties. In addition, we acknowledge uncertainty in the PR23 recalibration of Schedule 8, and therefore some uncertainty as to whether benchmarks and payment rates are set at the right level. Currently, there is only limited scope to update Schedule 8 parameters during the control period, provided for in the passenger regime by Schedule 8, paragraph 17 (this provision is not present in the freight and charter regimes). Through this provision, train operators and Network Rail can request updates to their parameters. However, due to its bilateral nature, this provision is not well-suited to recalibrating in a co-ordinated way across multiple operators and does not permit ORR to initiate recalibration.

	We are therefore introducing a provision within Schedule 8 to allow ORR to initiate updates to Schedule 8 parameters, to introduce more flexibility into the regime. The ability for ORR to initiate recalibration within the control period will be included in the passenger, freight and charter regimes (the freight and charter regimes are calibrated at the industry level, so a change to benchmarks or payment rates would affect all operators). We are committing to recalibrate the Schedule 8 passenger regime ahead of year 3 of CP7, to allow the regime to adjust during CP7 to better reflect changing industry conditions. This will be part of a wider reset, involving changes to the performance trajectories set for Network Rail for the passenger sector. The recalibration ahead of year 3, which we cover in the main policy position document on Incentives, will focus on the passenger sector, but updates to freight and charter operator payment rates may be required in order to avoid imbalance in the Schedule 8 'star' model. Aside from the recalibration ahead of year 3 of CP7, the provision will only be used if there are clear benefits to the industry from recalibrating, and if it is clearly justified by a material change in circumstances that diverges from the assumptions made in the PR23 recalibration. We would not expect to recalibrate as a result of changes to performance that are under the control of industry parties. Circumstances would need to be likely to lead to a sustained change in realistic performance expectations in future years of the control period.
Impacts on Network Rail and train operators (passenger, freight and charter)	We assess the impacts of the policy at an industry level, as the impacts affect Network Rail and train operators in similar ways. **Financial impacts:** If there is a material change in circumstances during the control period, this could result in significant Schedule 8 net payment flows in favour of Network Rail or train operators. These payments may be out of step with expected performance or the expected financial impacts of disruption. In such circumstances, recalibration would mean that financial flows for both Network Rail and operators would be more likely to reflect reasonable expectations of performance and the financial impacts of disruption. This could benefit industry parties by reducing the

volatility of budgets (for operators that are 'held neutral' to Schedule 8 by their franchise bodies, these benefits would be felt by the franchise bodies rather than the operators.)

Administrative burden: There would be administration costs associated with any mid-period recalibration, including the recalibration ahead of year 3 of CP7. These costs would reflect the scope and methodology for the recalibration – for example, whether it included all operators and updated both performance benchmarks and payment rates. Recalibration of Schedule 8 is a complex and potentially costly exercise – for example, the PR23 recalibration exercise will span around a year in length and has required specialist consultant resources to carry out the calculations, in addition to staff time from ORR and the industry. While the PR23 recalibration models are being built in such a way to be readily updateable any recalibration will still come at a cost in industry resources.

Incentive impacts: There are benefits to fixing Schedule 8 parameters over time. Schedule 8 payments are often used in business cases for initiatives that improve performance, providing parties with an opportunity for financial benefit if performance outcomes are improved. Fixing Schedule 8 parameters provides industry parties with clear incentives to improve performance in the knowledge that performance gains will not be immediately 'clawed back' through an updated recalibration. For this reason, ORR does not intend to recalibrate annually. Aside from the recalibration ahead of year 3 of CP7, ORR only intends to use the new provision when there is a material change in circumstances that requires it. In such circumstances, a recalibration that reflected updated industry circumstances would mean that incentives would be calibrated to more accurately reflect performance expectations and the financial impacts of disruption. (We note, however, that parties are always incentivised to improve train performance, regardless of where the benchmark is set.)

There may be a negative effect on a party's incentives in advance of the recalibration ahead of year 3 of CP7, or another recalibration that is signalled in advance. There may be less incentive for the party to improve its performance as this would translate into more challenging benchmarks following the recalibration. However, this

	effect is likely to be outweighed by Schedule 8's day-to-day incentives, as deliberate underperformance would result in significant financial penalties.
Decision	Our decision is to introduce a provision within Schedule 8 to allow ORR to initiate recalibration of Schedule 8 within the control period, and to include this provision in the passenger, freight and charter regimes. We will carry out a recalibration of the passenger regime ahead of year 3 of CP7, but otherwise will only recalibrate in the event of a material change in circumstances.

5. Impact assessment on an infrastructure cost charge for airport services in CP7

Background	As part of the 2023 periodic review (PR23), we have said that we will maintain an ICC on interurban services and have proposed to set this charge at £5 per train mile for control period 7 (CP7, which will run from 1 April 2024 to 31 March 2029), (in 2023-24 prices). We said in our draft determination, that we intended to give further consideration to the relevance of a specific mark-up for open access services to airports in Great Britain, subject to further work. In August 2023, we published a further consultation setting out our proposal to permit Network Rail to levy an ICC on open access services which run between large stations on the mainline network and stations serving major airports. We have not previously considered the relevance of a specific mark-up for open access services to airports. This is because there have been no open access operators providing airport services other than Heathrow Express, which has been operating under a bespoke track access agreement. There has also been little indication of prospective interest in operating such services from potential entrants. Network Rail's CP7 Strategic Business Plan noted that Heathrow Express may be moving onto a model track access contract with Network Rail, from the start of CP7. Under a model contract, Heathrow Express would pay the normal suite of regulated access charges that are set through the periodic review. In particular, Heathrow Express would no longer be required to pay a fixed access charge (which it does under its existing contract with Network Rail), if it moved on to a model contract.
Proposed change to charging framework being considered.	We consider the higher station demand threshold of 15 million entries / exits, as used to define interurban services, remains appropriate for defining the non-airport station within an airport market segment. We consider that an airport station demand threshold of 5 million annual entries / exits would be the most appropriate threshold to define this segment. We consider that this would broadly identify those airport

	services which are most likely to be able to bear a mark-up: Gatwick, Stansted, Heathrow and Birmingham International. We do not consider, for the reasons set out in our consultation, that a distance threshold (as applied to the interurban segment) is relevant to defining this market segment. This impact assessment has been undertaken under the assumption, as assumed in our airport services consultation, that the ICC for airport services is set at £5 per train mile.
Options for the market segment definition	A number of options have been considered for the definition of the market segment that this charge would apply to and the level at which the charge is set. The above definition is largely consistent with that proposed for the market segment for interurban open access operators in CP7. The key difference is that the airport station demand threshold is lower than the low station demand threshold for the interurban services. This reflects the premium nature of airport services and the current size of the airport station markets. The subsequent analysis assumes this structure.
Key relevant considerations	Potential benefits from permitting Network Rail to levy an ICC on these services (relative to only levying variable charges): (a) It would lower Network Rail's overall reliance on public subsidy, by ensuring that these services contribute to the recovery of Network Rail's fixed costs. This is relevant to our duty to have regard to Secretary of State funds. (b) Furthermore, for prospective open access services to airports, the forecast revenues from an ICC would make it easier for a prospective open access operator seeking to run airport services to pass the Not Primarily Abstractive (NPA)[1] test and therefore be allowed access to the network. In this way, an ICC can also support our duty to promote competition. Potential cost: (a) It could deter new open access entry due to the cost of paying an ICC. We consider this has been addressed by our market can bear analysis.

[1] The NPA test requires new open access applicants' services to generate thirty-pence of revenue for every one pound they abstract from incumbent operators, as a condition of securing access rights.

Impacts on affected parties	
(1) Network Rail	Network Rail will receive additional income to recover fixed costs where new open access operators enter the market.
(2) Funders	**Impact on Secretary of State and the Scottish Ministers' funds** The main effect of this policy on funders would be an increased contribution to Network Rail's fixed cost recovery, after new open access operators enter the market, as Network Rail's income would be higher.
(3) Current or prospective operators of open access airport-based services	Heathrow Express is the only existing open access operator that runs services that could be captured by this definition, but we understand that it is retaining its existing contract and as such it will not pay the ICC in CP7. We conducted an ability to bear analysis of this market segment based on revenue and operating cost data within Heathrow Express's latest published accounts (2022). Our analysis showed that an airport service market could bear an ICC of £5 per train mile. Our analysis took account of COVID impacts on rail demand and in the case of Heathrow Express, the potential impact on its revenue due to competition from MTR Elizabeth Line. Heathrow Express raised a concern about the impact of potential changes to its access rights on its revenue. We have not modelled this as we do not have sufficient information to do so. However, it is not guaranteed that Network Rail would change access rights significantly if the parties were to move to a model contract, and Heathrow Express's timetable would continue to have protections from changes under Part D of the Network Code. Furthermore, we have set the ICC rate at a conservative level that we consider captures such uncertainties. Heathrow Express is already paying a fixed charge. We therefore do not consider it appropriate to exempt it from paying an ICC if it were to move onto a model track access contract (under which it would no longer be paying such a fixed charge). In respect of prospective operators, forecast revenues for Network Rail from an ICC would make it easier for a prospective open access operator seeking to run airport services to pass the Not Primarily

	Abstractive test and would make it more likely that new competing services to airports would provide additional ICC income to Network Rail. However, the prospect of paying an ICC could deter new entry. Any new entrant will be subject to our ICC phasing-in arrangements. This means unless an operator starts operating in year one of CP7, it would not pay the ICC at the full rate in CP7. We are not aware of any current operator's plans to enter this market.
(4) Other impacts	The cost of paying an ICC could lead to increased fares causing modal shift from rail to other modes. An ICC could reduce available funding for investment in rail services. This potential impact has been suggested by several stakeholders, although no business case demonstrating this has been presented to ORR.
Decision	Taking everything in the round, we have concluded that an ICC of £5 per train mile is consistent with the 2016 Regulations underpinning mark-up charges, and appropriately balances our Section 4 duties. We therefore have decided to set an ICC for open access services in a market segment for airport services (as defined above) of £5 per train mile (in 2023-24 prices). Network Rail will include the new ICC in its track access price list for CP7.

6. Impact assessment on capping and phasing-in VUC increases for freight and charter operators in CP7

Background	The variable usage charge (VUC) is a charge designed to recover the operating, maintenance and renewal costs that vary with small (or marginal) changes in traffic, assuming network capacity remains fixed[2]. It does not reflect the cost of providing or changing the capability or capacity of the network. Under the existing VUC methodology, the VUC recovers variable wear-and-tear costs relating to three types of activity: track, civil engineering, and signalling. The vast majority of these costs are track related (84%) with civil engineering and signalling representing 13% and 3% respectively[3]. Maintenance and renewals spend on these assets comprises around a quarter of Network Rail's total operations, support, maintenance and renewals (OSMR) () expenditure. The VUC is disaggregated by vehicle class and, in the case of freight services, by commodity. Typically, heavier and faster vehicles incur a higher VUC, reflecting the relatively higher levels of damage that they cause to the network. The rates are averaged across the network, resulting in a single price for each permutation of vehicle type and commodity across the network. Network Rail recalibrates the VUC at each periodic review based on the latest assumptions about maintenance and renewal costs, efficiency and headwind assumptions and traffic forecasts, as well as any agreed changes to the methodology for calculating the charge. This generally results in changes to individual VUC rates to reflect the latest evidence on the estimated wear-and-tear costs that vary with traffic. In PR18, following Network Rail's recalibration of the charge, we decided to phase in the increases in VUC for freight and charter

[2] In practice, rail infrastructure operating costs are widely understood not to vary materially with traffic. From control period 4 (CP4), the charge has been set to recover only certain maintenance and renewal costs that vary with traffic.

[3] For more details, see Network Rail consultation on regulated access charges in CP7.

	services that were due to take place at the start of control period 6 (CP6). This was because operators of these services would have otherwise faced a large increase in their charges. Under this capping / phasing-in policy, the VUC was set to increase (in real terms) at a uniform rate for the last three years of CP6 and throughout control period 7 (CP7) (CP7, which will run from 1 April 2024 to 31 March 2029) to reach full cost reflectivity by the end of CP7. This policy aimed to strike a balance between stability and predictability, affordability for the market segments in question, and full cost-reflectivity.
Proposed change to charging framework being considered.	In our draft determination, we proposed to revise the existing phasing-in policy set in PR18 (as described above), in light of the increase in cost-reflective VUC rates for PR23 calculated through Network Rail's recalibration. We proposed that average VUC rates for freight and charter should increase during CP7 along the trajectory as set in PR18, instead of increasing to the new (higher) cost-reflective rates as recalibrated for the 2023 periodic review (PR23). This represented a change to our minded-to position, as set out in our October 2022 conclusions document. We said we would keep our draft decision under review as the recalibration process for the VUC continues. Following our draft determination, we have worked with Network Rail to update its recalibration to account for our draft decisions and the new information outlined in the final determination. The updated VUC recalibration has produced lower increases in cost-reflective (i.e.uncapped) VUC rates than presented in our draft determination. The updated recalibration shows that uncapped passenger VUC rates are set to increase by an average of 3.0% in real terms in CP7, compared to CP6. Uncapped freight rates will increase by an average of 8.6% and uncapped charter rates will increase by an average of 7.6%. Furthermore, there is considerable variation in the changes in individual VUC rates as the charge is broken down by vehicle class and (for freight) commodity. Our analysis shows that the vast majority of the above increases in uncapped VUC rates are caused by the way CPI inflation indexing is applied. Throughout CP6, VUC rates were updated using a lagged CPI index based on the previous year's CPI inflation. This lagged inflation can produce a mismatch when compared to actual annual movements

in CPI inflation. This will be the case if the actual CPI inflation rate in a year is different from the previous year's CPI inflation rate, as happened in CP6. This indexation approach has therefore led to an inflation shortfall between the VUC rates operators paid and what the actual charges would have been had the indexation reflected actual CPI inflation.

To be able to estimate the impact of CPI inflation adjustment on our policy, the uncapped PR18 VUC rates are inflation uprated to 2023-24 prices in two ways: we first use the (lower) contractual rate, i.e. the lagged indexation factor (1.206 for freight, and 1.239 for passenger and charter), and then use the (higher) May 2023 Bank of England forecast of 2023-24 CPI inflation (i.e. 1.276). The lagged inflation factors are different for freight and passenger rates because under our CP6 policy, passenger rates were uplifted using the November CPI figure of the preceding year, whilst freight rates were uplifted using the average value of monthly CPI figures for the 12 months up to and including December of the preceding year.

Excluding the effect of CPI inflation above, there would be a 0.0% increase in uncapped passenger rates on average, a 2.6% increase in freight rates and a 4.5% increase in charter rates respectively.

In light of the increase in cost-reflective VUC rates for PR23, we have reconsidered our existing capping / phasing-in policy for freight and charter operators. The rest of this impact assessment sets out our assessment of the options and their impacts on affected parties.

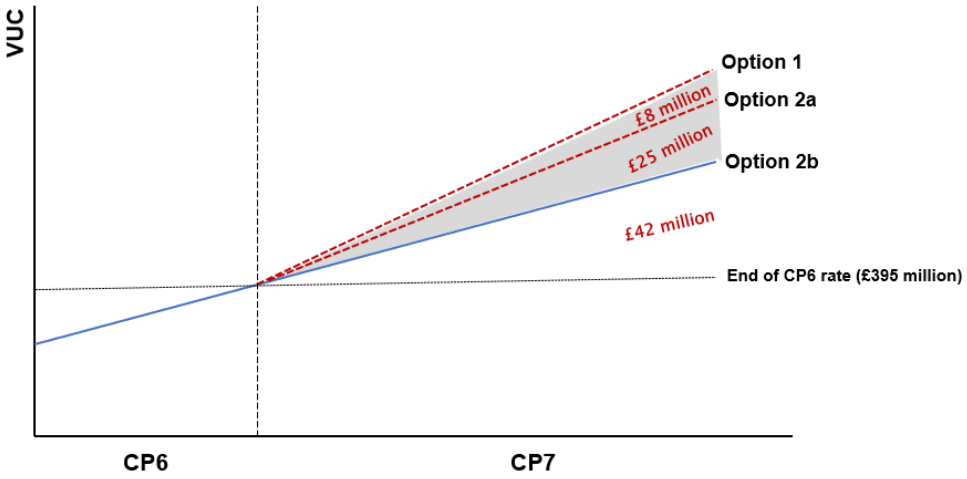
We note that we have separately considered the impacts of recalibrated VUC rates on passenger operators, but we do not consider that it gives us reason to introduce any capping arrangements. This is because, as explained in our final determination, for publicly-contracted passenger operators the impact of changes is mitigated by their current contractual arrangements. As for open access operators, our assessment shows that this group is not forecast to incur a material increase in charges due to the increase in VUC rates in CP7. We estimated that the specific increase in VUC rates for these operators would be between 0.0% and 5.0% between CP6 and CP7. This, combined with the increase in Electrification Asset Usage Charge (EAUC) rates, represents an increase of between 0.0% and 0.2% in the main open access operators' total expenditure.

Therefore the impact of recalibrated VUC rates on passenger operators is not covered in this impact assessment.

Options	We have considered the impacts of three options for our capping / phasing-in policy for freight and charter VUC rates in CP7: • **Option 1**: **Retain the existing VUC phasing-in policy set in PR18 but correct for the inflation shortfall that occurred in CP6**. Under this option, VUC rates would increase on a straight-line trajectory to reach the new (higher) uncapped rates, consistent with Network Rail's PR23 recalibration exercise, by the final year of CP7. Moreover, under this option, we would correct the inflation shortfall that occurred in CP6. • **Option 2a**: **Maintain the existing trajectory of VUC increases as set at PR18 and correct for the inflation shortfall that occurred in CP6.** Under this option, VUC rates for CP7 would increase on the same straight-line trajectory that was envisaged when we set our capping / phasing-in policy in PR18, with the inflation shortfall that occurred in CP6 corrected. Under this option, VUC rates would reach the level of cost-reflective rates calculated in PR18, by the final year of CP7. • **Option 2b**: **Maintain the existing trajectory of VUC increases as envisaged when we set our capping / phasing-in policy in PR18 and do not correct for the inflation shortfall that occurred in CP6.** Under this option, VUC rates would not reach the level of cost-reflective rates calculated in PR18, by the final year of CP7. Figure 1 below compares the implied trajectory of average increases in VUC rates under these three options (note the diagram is illustrative and not to scale). As shown in Figure 6.1, option 2b would involve the lowest increase and option 1 would involve the highest increase in average VUC rates over the course of CP7. We estimate the total average increase in freight VUC rates (between the end of CP6 and the final year of CP7) under option 1 would be 28%, compared to 24% under option 2a and 18% under option 2b. The average annual increases would be 5.0%, 4.5% and 3.3% respectively[4]. For charter rates, we estimate the average increase in VUC rates over the course of CP7 would be around 17% under option 1, 12% under option 2a and 9% under option 2b. The average annual increases would be 3.2%, 2.3% and 1.7% respectively.

[4] We note that these estimates – and related estimates presented here – are based on Network Rail's freight forecasts for CP7.

Figure 6.1: Illustration of phase-in profiles for VUC rates subject to capping



2b - PR18 cost reflectivity by end CP7 **without correcting CP6 inflation shortfall** – 18% increase over end CP6

2a - PR18 cost reflectivity by end CP7 with CP6 **inflation shortfall corrected** from Y1 CP7 – 24% increase over end CP6

1 - **PR23 cost reflectivity** by end CP7 with CP6 **inflation shortfall corrected** from Y1 CP7 - 28% increase over end CP6

We have considered these options in the context of the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016 and the Commission Implementing Regulation (EU 2015/909). Our interpretation of this legislation is that costs directly incurred have to be recovered from train operators, but we are satisfied that we have the flexibility to allow for changes to be brought in over a period of time (i.e. the charge can be capped / phased in). However, such capping / phasing-in must not be open-ended or indefinite; there must come a time when direct costs are fully recovered. Any capping / phasing-in also needs to be justified against ORR's statutory Section 4 duties (as discussed in more detail below).

In its response to our draft determination, Network Rail disagreed with extending the VUC capping and phasing-in proposal to cover a period of 20 years (CP5-CP8 inclusive). It said that while not "technically open-ended", 20 years was too long a period, and therefore may not be within the spirit of the legislation.

However, we consider that all of these options would be consistent with the Regulations, as they move the VUC closer to recovering the full wear-and-tear costs of freight usage of the network. For example, based on the latest recalibration outputs, we estimate that under option 2b Network Rail is expected to recover around 87% of directly incurred costs from freight traffic in CP7 (based on new cost reflective rates), compared to around 80% of total directly incurred costs in CP6.

	Moreover, in the case of options 2a and 2b, the remaining caps that apply to VUC rates would be unwound over CP8. As such, these options keep freight and charter users on a clear pathway to paying the full directly incurred cost of network use. Options not considered The option of maintaining all VUC rates at CP6 exit levels in real terms for CP7 was not examined in detail because it was not clear that this would be consistent with the requirements of the regulations. Also not examined in detail was setting all freight and charter VUC rates at their uncapped level from the start of CP7. In PR18, we set a trajectory for freight and charter VUCs to reflect the full costs of wear-and-tear on the network towards the end of CP7. Given that cost-reflective rates are now set to increase relative to when we set this trajectory in PR18, we do not consider that it would be appropriate to bring forward the date at which directly incurred costs would be recovered in full.
Key relevant considerations	In assessing these options, and reflecting on our statutory Section 4 duties, we have had particular regard to the following considerations which we consider are relevant to this issue: • Better use of the network, i.e. ensuring there are strong incentives for the network to be used as efficiently as possible over the long term: A cost-reflective VUC will encourage operators to invest in track-friendly vehicles, and only to use the network where the marginal benefit is greater than or equal to the marginal cost. This is relevant to our duties to promote the use of the network, and promote efficiency and economy on the part of persons providing railway services. • Impact on funding: All other things equal, changes in VUC income arising from our CP7 capping / phasing-in policy do not affect total funding for Network Rail in England & Wales, whereas it affects total funding for Network Rail Scotland (see below for more details). This is relevant to our duties to have regard to the funds available to the Secretary of State (and to the Scottish Ministers' expenditure) for the purpose of railway services, and to not render it unduly difficult for Network Rail to finance its activities. • Supporting rail sector growth and stability: The review has taken place during difficult economic times, e.g. CPI inflation, which was not expected. In this context, the recalibration of VUC rates has led

	to large increases in uncapped VUC rates (28% on average) which, if fully implemented, might not be consistent with freight growth and net-zero objectives. This is relevant to our duties to protect the interests of users of railway services, and to enable persons providing railway services to plan the future of their businesses with a reasonable degree of assurance. Additionally, we have also considered the following wider objectives[5]: • Funders' objectives for the railway in PR23, as articulated in their High-Level Output Specification (HLOS) documents. • Promoting positive wider external impacts, e.g. in relation to the environment. In considering these impacts, we have drawn on updated evidence from MDS Transmodal (MDST) on the impact of higher track access charges on rail freight volumes. As part of PR23, MDST produced estimates of these impacts on a commodity-by-commodity basis and we published a report summarising this work in March 2022. We have since commissioned MDST to update its March 2022 study to reflect the latest available information on the costs of transporting goods by different transport modes. MDST's revised report was published alongside our draft determination here.
Impacts on affected parties	
(1) Network Rail	Impact on funding Option 1, option 2a and option 2b all mean that the VUC will recover less than the estimated full directly incurred cost of network use by freight and charter operators. However, we do not consider that any of these options would make it unduly difficult for Network Rail to finance its activities. As described in paragraph 2.8 and 2.9 of our PR23 final determination: policy position on access charges changes in VUC income for England & Wales do not change total funding for Network Rail in CP7, whereas changes in VUC income in Scotland do change total funding for Network Rail Scotland.

[5] In PR18, we also considered impacts on the competitiveness of operators of different VUC phasing-in options, e.g. in terms of a reduction in the number of suppliers in the market. We consider the risk to competition of the options assessed here to be low, as they both allow a significant transitional period while higher VUC rates are phased in, which allows operators time to adjust. Furthermore, operators have been aware since PR18 that VUC rates are set to increase in real terms in CP7.

	However, Network Rail's Strategic Business Plan (SBP) has been based on a flat (real terms) income assumption for VUCs. This means that under option 2b, Network Rail will receive around £42 million more in freight VUC income, relative to its planning assumptions[6]. For option 2a, we estimate the additional income would be around £67 million and for option 1, we estimate the additional income would be around £75 million. We recognise that option 2b would reduce the forecast income that Network Rail receives through this charge, relative to options 1 and 2a. There is therefore a funding impact of this option for Scotland (but not England & Wales), which can be viewed largely in terms of foregoing additional income. However, the estimated magnitude of this impact on Network Rail's income (around £33 million and £25 million forgone respectively over the whole of CP7) is very small in the context of the total Statements of Funds Available (SoFA) and Network Rail's overall funding envelope. Incentives to add traffic to the network An issue highlighted in Transport Scotland's response to our draft determination was that the VUC can affect the incentives on Network Rail to accommodate additional traffic. To the extent that the VUC income from extra traffic is below the additional costs incurred, this may discourage Network Rail from supporting growth of relevant traffic types. We considered this potential effect in PR18, but concluded that it was unlikely to be a material consideration when considering capping VUC rates, so we did not consider it further as part of our PR18 impact assessment in relation to capping / phasing-in of VUC increases. We consider that the reasons that we took into account in coming to that view remain relevant now. As such, our view on the materiality of this impact remains unchanged.
(2) Funders	Impact on Secretary of State (SoS) and Scottish Ministers' funds As explained above, option 2b would reduce the VUC income that Network Rail receives from freight and charter operators, relative to options 1 and 2a. We estimate the magnitude[4] of this would be £33.1 million and £25.3 million respectively over the whole of CP7, of which

[6] This does not include additional VUC income from charter operators, but charter VUC income is generally around 1% of freight VUC income, so we consider this would not materially affect the estimates presented here.

around £1.3 million and £0.9 million respectively relates to lower income for Network Rail Scotland.

For a given level of traffic any forgone VUC income would affect the total funding for Network Rail Scotland. This is because Transport Scotland has confirmed that changes in VUC funding following a change to charge rates and/or forecast volumes, will not be offset by a change in its FTAC funding. However, in England & Wales, such forgone VUC income does not affect total funding for Network Rail in CP7. This is because the Department for Transport (DfT) has confirmed that any change in VUC funding, following a change to charge rates and/or forecast volumes compared to its SOFA assumption, will be offset by a change in its FTAC funding.

Having said that, Network Rail's CP7 SBP was based on an assumption of flat rates (in real terms). Under option 2b (under which Network Rail would receive the least amount of VUC income), Network Rail is estimated to receive around £42.2 million more in VUC income (of which £1.2 million relates to Network Rail Scotland), compared to the SBP assumptions. This compares to approximately £4.6 billion of total funding (from all sources net of electricity for traction) for Network Rail Scotland.

Therefore, under all three options, Network Rail will receive more VUC income relative to its SBP assumptions. This means that none of these three options would trigger additional funding requirements beyond those which have been set out in the SoFA (on which Network Rail's SBP is based).

Funders' objectives for the railway

Funders' HLOSs have set out a specific requirement for targets for freight growth over CP7 (and in the case of the network in Scotland, to facilitate net growth in CP7 of 8.7% net tonne kilometres in rail freight). Network Rail has since developed a stretching yet realistic set of freight growth forecasts for CP7[7]. The basis for these forecasts assumes that VUC rates will increase in line with the trajectory under option 2b, so this option is consistent with these forecasts.

The updated evidence provided by MDST on the impacts of higher access charges indicates that, all other things equal, it would be harder to achieve these targets under the phase-in profile shown in options 1 and 2a than that in option 2b. This is because there would be a larger

[7] For England & Wales as a whole, Network Rail's freight growth forecast is 7.5%.

	expected reduction in rail freight volumes in response to the higher VUC rates for nearly all commodities – including the two most significant commodities by volume (intermodal and construction materials). This is set out in more detail in the next section below. We also note that, in response to our April 2022 PR23 consultation on Network Rail's charging framework, DfT stated its support for maintaining the existing phasing in of VUC increases (subject to further review later in PR23), which it said reflects the Government's strong support for supporting the rail freight industry to maximise its economic and environmental benefits.
(3) Freight operators	<u>Better use of the network</u> A cost-reflective VUC means that, in broad terms, the price paid by operators for access to the network will equal the marginal cost of providing that access. All other things equal, this will support our duties to promote the use of the network, and promote efficiency and economy on the part of persons providing railway services. This is for two main reasons: • Firstly, by ensuring that freight operators take the full directly incurred costs of service into account when using the network, it incentivises operators only to use the network where the marginal benefit is greater than or equal to the marginal cost of network use. Under options 1, 2a and 2b, VUC rates would still not be fully reflective of the costs imposed by the operator on the network by the end of CP7 (albeit the deviation from cost-reflectivity would be relatively moderate). As option 1 moves VUC rates to the latest estimate of cost-reflective VUC rates sooner than options 2a and 2b (i.e. by the end of CP7), it would be expected to support more efficient network use. • Secondly, by ensuring that the cost of network use fully reflects the relative wear-and-tear caused by different types of vehicle, it encourages operators to invest in track-friendly vehicles (and by extension the development of more track-friendly vehicles). Having said this: ○ The way that caps would continue to apply under options 2a and 2b, still broadly preserves the relativities in the cost of network use between different vehicle types. This means that, even under options 2a and 2b, there are near-term benefits to operators from using more track-friendly vehicles.

- As noted in PR18, the strength of financial incentives to invest in track-friendly vehicles is also likely to depend upon expectations about future levels of the VUC, rather than being principally determined by near-term pricing. As set out above, under options 2a and 2b, VUC rates would need to continue increasing in CP8 to eventually recover full directly incurred costs[8].

As such, the benefits of option 1 over options 2a and 2b, in terms of incentivising more track-friendly network use, may be limited in practice (particularly if there are some constraints on how quickly operators can respond to those incentives, e.g. due to procurement timeframes or lack of availability of track friendly rolling stock).

Rail sector growth and stability

In response to our draft determination, a number of freight operators expressed concerns that the increases arising from Network Rail's PR23 recalibration are inconsistent with national freight growth targets and net-zero agenda. Freight respondents also argued that the proposed increases in charges will cause the rail freight sector to become less competitive, resulting in a modal shift from rail to other modes of transport, notably to road haulage.

We consider that our freight and charter VUC capping and phasing-in policy is consistent with funders' freight growth ambitions and the targets confirmed in our final determination. Importantly, the freight growth targets that we have set, of 7.5% for England & Wales and 8.7% for Scotland, are based on analysis commissioned by Network Rail which considered a range of scenarios covering wider market and economy effects as well as freight track access charges. The central case assumed that freight VUC rates would continue to

increase to uncapped levels as calculated in PR18, which is consistent with option 2b (maintaining PR18 trajectory).

As mentioned above, we have also considered the evidence from a study which we commissioned from MDST to help us understand better the likely impacts on freight traffic volumes of increases in VUC rates. The study consisted of updating MDST's March 2022 study on rail freight demand elasticities with respect to track access charges to reflect the latest available information on the relative costs of transporting goods by different transport modes. Recognising that

[8] The precise profile of increase would be subject to the recalibration of the VUC in the next periodic review.

charges are only one aspect of what affects freight growth, the model used in this study also accounted for other factors including those related to the wider economy, trade, and cost of road haulage.

This updated evidence shows that the impact on rail freight volumes of phasing-in the increase in VUC to cost-reflective levels as forecast in PR18 remains broadly in line with the expected impacts we considered when we developed this policy in PR18. Specifically, the MDST study[9] showed that most rail freight is demand inelastic.

The results of the estimated impact on volumes for both options 1 and 2a by commodity, compared to option 2b, are shown in Table 1 below.

For the largest two commodities (intermodal and construction materials), the estimated impacts for option 1 are 3.2% and 5.4% respectively and option 2a are 2.4% and 5.2% respectively, compared with 1.4% and 3.8% under option 2b.

This means that relative to options 1 and 2a, option 2b would limit the impact on rail freight volumes of increases in this charge and therefore on the growth and stability of the freight sector.

These impacts should be seen in the context of other changes in the cost of rail use. In particular, traction electricity rates are significantly higher now than when we set our capping / phasing-in policy in PR18, and EAUC rates are also set to increase in CP7. While these factors are only relevant to electrified freight services, which is a relatively small proportion of freight traffic[10], they nevertheless have the potential to affect the competitiveness of rail freight more generally.

[9] The scenarios modelled by MDST were: (1) An increase in VUC in line with ORR's existing capping and phasing-in policy, such that this charge reaches cost-reflective levels as calculated in PR18; (2) VUC rates increasing by +20% from scenario 1; and (3) VUC rates increasing by +10% from scenario 1.

[10] Electrified traction accounted for 11% of total freight train kilometres in 2022-23. Source: ORR data portal.

Table 6.1: Estimated impact on tonne kms of VUC increases under options 1, 2a and 2b (2028-29)

Commodity	Estimated impact			Incremental impact of option 1 over:	
	Option 1	Option 2a	Option 2b[3]	Option 2a	Option 2b
Intermodal	3.2%[1]	2.4%[2]	1.4%	0.8%	1.8%
Automotive	1.6%[1]	1.1%[2]	0.5%	0.5%	1.1%
Construction materials	5.4%[2]	5.2%[2]	3.8%	0.2%	1.6%
Domestic waste	0.0%[1]	0.0%[2]	0.0%	0.0%	0.0%
General merchandise	6.4%[1]	4.0%[2]	3.2%	2.4%	3.2%
Metals	2.9%[2]	2.6%[2]	2.0%	0.3%	0.9%
Petro / chemicals / industrial minerals	1.5%[2]	1.3%[2]	0.8%	0.3%	0.7%

1. Based on simple linear interpolation between MDST's scenarios 3 and 2.
2. Based on simple linear interpolation between MDST's scenarios 3 and 1.
3. Based on MDSTs revised table 8 (scenario 1).

(4) Charter operators

In PR18, the capping / phasing-in policy that we set for charter operators meant that average increases in charter rates over CP6 were capped at 5% from the end of CP5 to the final year of CP6.

Based on Network Rail's updated recalibration outputs, we estimate that the average increase under a revised trajectory to achieve full cost-reflectivity by the end of CP7 would be around 16.8% (option 1), compared to around 11.8% if rates instead increased to reach the cost-reflective levels calculated in PR18 with the CP6 inflation shortfall corrected (option 2a) and around 8.6% if rates instead increased to reach the cost-reflective levels calculated in PR18 without correcting for

	the CP6 inflation shortfall (option 2b). The average annual increases would be 3.2%, 2.3% and 1.7% respectively. We have less information on the potential impact these options would have on charter operators, compared to freight operators, particularly as the level of profitability of operators and services varies significantly, reflecting the varied nature of charter operations. But in general, this impact would depend on the sensitivity of demand for charter services to changes in prices. Given that charter operators run non-regular bespoke services mainly for tourist / leisure purposes, demand is expected to be relatively elastic (e.g. compared with commuter routes) and so changes in prices may result in a material reduction in passenger demand. This would limit the ability of charter operators to pass higher charges onto end users, and could therefore have implications for the tourism industry, particularly in the specific locales/regions in which these services are operated.
(5) Other impacts	An increase in VUC rates will, all other things equal, lead to a shift in freight traffic from rail to road. This may generate negative environmental impacts, create road congestion (with negative implications for productivity) and have safety implications (based on the assumption that road freight is less safe than rail freight). As explained above, in light of the updated evidence provided by MDST on the impacts of higher access charges, we expect that option 2b will limit the degree of switching of rail freight volumes from rail to road (relative to options 1 and 2a). This is particularly the case for the construction materials sector, which accounts for around 30% of all freight traffic moved[11]; MDST estimates that option 2b would (all other things equal) lead to a 4.2% fall in construction materials tonnes (3.8% fall in tonne kms) in the final year of CP7, compared to a fall of 6.0% (5.4%) and 5.8% (5.2%) if rates were to increase along the lines of option 1 and option 2a respectively (see Table 1 above). This is equivalent to around 579,000 and 507,000 tonnes fewer moving to road under option 2b by the final year of CP7 for this commodity than under options 1 and 2a respectively. This would be likely to generate significant benefits for the environment and in terms of avoided congestion.

[11] Based on 2022-23 volumes, as reported in ORR's June 2023 Freight rail usage and performance report.

Decision	Based on our assessment of options 1, 2a and 2b set out above: • All options involve deviations from cost-reflective (i.e. uncapped) levels of VUC rates, which may affect operators' incentives around use of the network and choice of rolling stock (noting these are generally decisions taken over long timeframes). This impact would be larger and more prolonged under options 2a and 2b than for option 1, although both of these options still move the VUC closer to recovering total directly incurred costs from freight network usage, and keeps rates on a transition profile to approach full cost reflectivity by the end of CP8. • Under all three options, Network Rail will receive more VUC income relative to its SBP assumptions. Network Rail's forecast income from this charge would be lower under option 2b than options 1 and 2a, but we estimate this would be very small in the context of the total SoFAs and Network Rail's overall funding envelope. • All options would avoid a sudden increase in VUC rates, to provide both freight and charter operators with some time to adjust. Relative to options 1 and option 2a, option 2b would limit the impact on rail freight volumes of increases in this charge and therefore on the growth and stability of the freight sector. Options 2a and 2b would also better support funders' freight growth objectives as articulated in their HLOSs; and may generate wider benefits for the environment, productivity benefits from lower congestion, and potential safety benefits. • Similarly for charter, all the three options involve deviations from cost-reflective (i.e. uncapped) levels of VUC rates. The level of profitability of operators and services varies significantly, reflecting the varied nature of charter operations. We are also mindful of the small level of charges income generated by the charter VUC and of the need to maintain simplicity in the overall charges framework. Therefore, having assessed the impact of the three options above, we consider that it is proportionate to align our capping and phasing-in policy for charter operators with our policy for freight. Overall, we consider that option 2b would limit the most significant impacts of the phasing-in of increases in the VUC for freight and charter operators; help deliver funders' objectives (particularly in respect of freight growth); not have a material effect on Network Rail and funders finances and have benefits in other areas such as the environment, while preserving the beneficial incentive properties of this charge by

	ensuring that rates continue to move closer to full cost-reflectivity during CP7. Compared to option 1, option 2a would also limit some of the impact of a sudden increase in VUC rates. However, given the size of the inflation shortfall that was created by the inflation adjustment approach in CP6 (and given that we decided against phasing-in its correction), it would still lead to a relatively sudden increase in VUC rates in the first year of CP7, which operators would have limited time to adjust to. We will therefore increase freight and charter VUC rates over the course of CP7 in line with the profile set out in option 2b, i.e. along the existing trajectory as envisaged when we set our capping and phasing-in policy in PR18, without correcting for the inflation shortfall that occurred in CP6.

7. Impact assessment on the availability of modelled EC4T consumption rates

Background	The traction electricity (electric current for traction, or EC4T) charge is paid by all operators who use electricity to power trains. This charge is calculated based on one of the following three approaches: (a) **metered consumption** (based on readings taken from meters on trains); (b) **modelled consumption** (based on estimated consumption, subject to an end of year volume reconciliation exercise); or (c) **partial fleet metering** (although no operator currently uses this charging approach). Modelled consumption is calculated by multiplying an estimated consumption rate by total electrified mileage in each rail period. Consumption rates are derived from theoretical and empirical relationships between consumption, vehicle characteristics and typical operating characteristics. The EC4T charge is then obtained by multiplying modelled consumption by electricity market prices paid by Network Rail. An EC4T cost and volume reconciliation (also known as the 'cost and volume wash-up') is then undertaken between operators and Network Rail at the end of each financial year to determine whether operators have been under or over-charged and whether 'wash-up' payments need to be made either from the operators to Network Rail, or vice-versa. There are three broad types of modelled consumption rate that operators can use to pay for traction electricity: • A 'bespoke' modelled consumption rate, which applies to a particular vehicle type operating on a particular train service code on the network. • A 'generic' consumption rate, which applies to a particular vehicle type operating anywhere on the network. Using generic consumption rates is generally less accurate than using bespoke modelled consumption rates.

	• A 'default' modelled consumption rate. This was introduced by Network Rail for passenger services in control period 6 (CP6) and is set equal to the highest rate on the modelled consumption rates list at the start of the control period.
Proposed change to charging framework being considered	In our April 2022 consultation, we proposed removing bespoke modelled consumption rates for new train services from the beginning of control period 7 (CP7)[12]. The primary objective of this proposal is to encourage metered consumption of EC4T, which we consider has several benefits. In particular, greater use of on-train metering (OTM) means EC4T charges will be more **cost-reflective**. This can serve to: • Strengthen operators' incentives to optimise their energy consumption, as they will pay for their actual consumption on the network rather than an estimated amount of consumption (which is less closely related to their use of energy on the network). • In turn, by encouraging lower energy consumption, this can improve the overall efficiency and environmental sustainability of the rail network. • In doing so, it also reduces the amount of consumption subject to the end-of-year volume wash-up, which can lead to unpredictable fluctuations in cashflows. After reviewing responses to our April 2022 consultation, we considered that the effectiveness of the proposal to remove modelled consumption rates for new train services would be affected by the availability (or not) of generic consumption rates. This is because removing the facility to obtain a bespoke modelled rate could otherwise lead operators to instead adopt a generic consumption rate (which are generally less cost-reflective than bespoke modelled rates), which would mitigate the intended benefits of this proposal. As part of its recalibration process, we asked Network Rail to consult on the implications of removing generic rates from the EC4T charging regime. Network Rail consulted on this issue in November 2022 and issued its conclusions in May 2023, in which it

[12] New train services are defined as any service that uses vehicles which are brand new to the industry, or existing vehicles that require a new consumption rate (for example because their operator moves them to a new service code).

	confirmed its intention to proceed with the removal of generic consumption rates. In our draft determination, we considered the impact of **removing the facility to obtain a new 'bespoke' modelled rate, as well as removing existing generic consumption rates, from the start of CP7**. With regards to the latter, we took account of responses to Network Rail's recalibration consultation, as documented in its conclusions document. For the avoidance of doubt, under this proposal, existing services using a bespoke modelled rate will continue to be charged for EC4T this way. Furthermore, the set of 'default' EC4T consumption rates will also be retained as a way of billing services for EC4T while they wait for their metered consumption systems to be set up, at which point they will move to OTM, and stop being charged using default rates.
Impacts on affected parties (relative to making no change)	
(1) Network Rail	This proposal should not impact Network Rail's cost recovery, as the EC4T charge (however it is billed) is largely passed through to train operators. We consider there may be some benefits to Network Rail from implementing this change, as follows: • savings from administering the EC4T charge: This proposal would mean Network Rail would no longer be required to calculate any new bespoke modelled rates on behalf of train operators. Furthermore, as new modelled rates often take effect retrospectively, it could also avoid the number of delays, which currently occur between services first operating on the network and modelled consumption rates being approved. This involves retrospectively recharging a journey, which can be time-consuming and costly; and • improved data on energy consumption on the network: On-train metering provides information about the specific amount of energy required to power electric trains. As such, if this proposal leads to an increase in the number of metered services on the network (the likelihood of which we consider below), this could improve Network Rail's overall picture of where and how traction energy is being consumed across the network. This could help it to identify factors that affect energy

	efficiency, which may inform improvements to electrified parts of the network (e.g. if very high meter readings were recorded over a particular portion of track). We also note that Network Rail has expressed support for this proposal in its response to our April 2022 consultation, and through its own recalibration exercise.
(2) Passenger operators of electrified services	We have considered which passenger train operators would be affected by this proposal. In broad terms, we consider there are four types of passenger services: 1) Existing passenger services that are currently billed for EC4T using a bespoke modelled rate, which have no plans to move onto OTM before the start of CP7. 2) Existing passenger services that are currently billed for EC4T using a generic consumption rate, and which have no plans to move onto OTM before the start of CP7. 3) New passenger services that are introduced in CP7 using new rolling stock. 4) New passenger services that are introduced in CP7 using existing rolling stock. We have assessed the impacts on each of these groups below. **Group 1** Under this proposal, passenger services in this group can continue being billed for EC4T using existing bespoke modelled consumption rates in CP7. These services would therefore not be impacted by this proposal. **Group 2** Passenger services in this group would be affected by the proposal to remove generic consumption rates from the traction electricity price list. The options for continuing to be billed for EC4T would be as follows: • obtain a bespoke modelled consumption rate before the start of CP7; • opt into OTM (which may involve some installation costs to retrofit meters); or • move onto the passenger default rate.

	Network Rail has undertaken further work to assess the number of existing services that rely on generic consumption rates to be billed for EC4T. To do this, Network Rail analysed a sample of billing data from its Track Access and Billing System (TABS). It also surveyed passenger operators about their future EC4T billing arrangements, to understand how the use of generic consumption rates may change in future (for instance due to meter fitment plans)[13]. This analysis indicates that there are only three passenger operators with services that fall into this group. The impact of this proposal for these services would depend on their choice of options set out above. We understand that meter fitment is a requirement in these operators' concession contracts, so we consider that the most likely response would be to bring forward the date on which they would move onto metered consumption. Network Rail also noted that two of these passenger operators have OTM equipment partially installed on the impacted fleets, which would reduce the incremental cost and effort of opting into OTM. If operators instead choose to obtain a bespoke modelled rate for some or all of their affected fleet, this would involve a cost. We understand from Network Rail that the cost of calculating a bespoke modelled rate is around £12,000. Given the number of affected services, we consider it would be feasible for these services to apply for and have a bespoke modelled rate approved before the start of CP7[14]. These rates would also be more accurate than the existing generic rates, and so this should improve the accuracy of the overall EC4T regime and reduce the volatility of wash-up payments. For these reasons, we do not consider this proposal would have a significant adverse impact on this group of services. We also note that Network Rail has been liaising with these affected operators to ensure that they are aware of the impact of this change, and will continue to work with them if they choose to

[13] We noted in our April 2022 consultation that the terms of the Department for Transport's (DfT) existing concession agreements with passenger operators require operators to use metered consumption as soon as reasonably practicable.

[14] Network Rail has also said that if an application for a new bespoke consumption rate is in progress before the end of CP6, then the operator will be allowed to complete the application during the first year of CP7.

pursue applications for bespoke modelled consumption rates or the installation of OTM on the remainder of their fleets.

Group 3

We would expect new passenger services that are introduced in CP7 using new rolling stock to opt into OTM. This is because we understand that almost all new rolling stock for freight and passenger services include on-board meters fitted as standard, so there would be no incremental cost of doing so. This would deliver the benefits associated with OTM described above, relative to a scenario where generic or bespoke modelled consumption rates were still available for operators to use, and some operators chose them instead of adopting OTM.

Some respondents to our draft determination said that there are sometimes teething problems with commissioning and setting up the metering interface on new services. We considered these arguments in paragraph 2.40 of our October 2022 conclusions document and we do not consider that this should preclude the use of OTM by services which have the capability to do so. Furthermore, we have recently updated our general approvals process for passenger track access contracts, which should make it easier for parties to move onto OTM without the requirement for an industry consultation or specific ORR approval.

Group 4

Passenger services that are introduced in CP7 using existing rolling stock would have two options for the purposes of EC4T:

- opt into OTM (which may involve some installation costs to retrofit meters); or
- use the passenger default rate.

For services for which existing rolling stock is already fitted with meters (either partly or fully), we would expect operators to use OTM as their billing approach, given the benefits of OTM discussed above.

For services which do not have meters installed, we have not identified any major barriers that would prohibit existing passenger rolling stock, which is already being used on Network Rail's infrastructure to be fitted with meters. There would be an incremental cost associated with retrofitting meters, which

	operators would be expected to weigh against the impacts of using the passenger default modelled consumption rate (which is set equal to the highest rate on the modelled consumption rates list at the start of the control period). We have previously estimated the cost of an on-train meter to be around £12,000 for AC train-sets (as defined by Network Rail) and £24,000 for DC train-sets[15]. We have also considered the likely size of this group. We recognise that this group would cover entirely new services introduced using older rolling stock, as well as existing services which are cascaded to a new route on the network (and therefore could not use an existing bespoke modelled rate). However, taking account that a significant number of passenger operators have contractual requirements around moving to OTM as soon as reasonably practicable (as discussed above), we would expect fewer and fewer services to fall into this group over time.
(3) Freight operators of electrified services	We have considered which freight services would be affected by this proposal. As with passenger services, we have considered separately the impact on four types of services: 1) Existing freight services that are currently billed for EC4T using a bespoke modelled rate, and which have no plans to move onto OTM before the start of CP7. 2) Existing freight services that are billed for EC4T using a generic consumption rate, and which have no plans to move onto OTM before the start of CP7. 3) New freight services that are introduced in CP7 using new rolling stock. 4) New freight services that are introduced in CP7 using existing rolling stock. We have assessed the impacts on each of these groups below. We note that no default rate for freight operators currently exists within the traction electricity modelled consumption rates list. However, as part of PR23, Network Rail has said it will introduce a set of default rates for freight operators, set to equal the highest modelled consumption rate for each class of service (following the approach for the passenger default rate). Freight operators will be able to use these rates from the start of CP7.

[15] See footnote 46 of our July 2021 consultation on the PR23 access charges review.

Group 1

Similar to group 1 for passenger operators, freight services in group 1 can continue being billed for EC4T using existing bespoke modelled consumption rates. These services would therefore not be impacted by this proposal in CP7.

Group 2

Freight services in this group would be affected by the proposal to remove generic consumption rates from the traction electricity price list. The options for continuing to be billed for EC4T would be as follows:

- obtain a bespoke modelled consumption rate before the start of CP7;
- opt into OTM (which may involve some installation costs to retrofit meters); or
- opt-into the new default rate available to freight services from the start of CP7.

It is unclear what the most likely response would be for this group. However, Network Rail has estimated that the impact of moving to a new default rate would be very small. This is because the proposed default rates are either identical to existing generic rates, or (in the case of heavy haul and intermodal traffic), only slightly above the existing generic rate. Network Rail has estimated the overall financial impact of this to be negligible (e.g. less than £2,000 for a 9-month billing period from 1 April 2022 to 2 January 2023)[16]. As such, we do not consider this proposal would have a significant adverse impact on this group of services.

If operators instead choose to opt into OTM or obtain a bespoke modelled consumption rate, this may involve a cost. However, both these billing approaches would be more accurate than the existing generic rates and so this should improve the accuracy of the overall EC4T regime.

Group 3

As with passenger services, we would expect new freight services that are introduced in CP7 using new rolling stock to opt into OTM (as we understand that almost all new rolling stock for freight and

[16] See paragraph 4.47 of Network Rail's recalibration conclusions document.

passenger services include on-board meters fitted as standard). This would deliver the benefits associated with OTM described above for this group of services, relative to a scenario where generic or bespoke modelled consumption rates were still available for operators to use, and some operators chose them instead of adopting OTM.

Some respondents to our draft determination said that there are sometimes teething problems with commissioning and setting up the metering interface on new services. We considered these arguments in our October 2022 conclusions document, and we do not consider that this should preclude the use of OTM by services which have the capability to do so.

Group 4

Freight services that are introduced in CP7 using existing rolling stock would have two options for the purposes of EC4T:

- opt into OTM (which may involve some installation costs to retrofit meters); or
- use the default rates that will apply from the start of CP7[17].

We have not identified any major barriers that would prohibit existing rolling stock, which is already being used on Network Rail's network, to be fitted with meters. We specifically considered this as part of our October 2022 conclusions document, by asking train operators to share with us information regarding the size of their fleet that cannot be fitted with meters. The information we received suggests there are no major barriers that would prohibit existing rolling stock, which is already being used on Network Rail's network, to be fitted with meters[18].

However, for services which do not have meters installed, there would be an incremental cost associated with retrofitting meters which operators would need to weigh against the use of the freight default modelled consumption rate. We recognise that freight operators introducing a new service with rolling stock that does not

[17] Some stakeholders suggested that operators might respond to the removal of modelled rates by increasing or prolonging the use of diesel traction (or other transport modes). We considered this as part of our October 2022 conclusions document (see paragraphs 2.46 to 2.48). For the reasons set out there, we consider the risk of this outcome to be very low.

[18] See paragraph 2.41 of our October 2022 conclusions document.

	have OTM capability may therefore choose to use default modelled consumption rates rather than incurring this incremental cost[19]. If so, there may not be clear benefits from this proposal for this group of services. However, there would also be no significant adverse impacts, given that the new freight default rates that Network Rail has proposed are very similar to existing generic rates (as explained above for group 2).
(4) Other impacts	**Simplification:** We consider that removing these types of modelled consumption rates would simplify the overall EC4T charging framework by streamlining the modelled consumption rate charging approach. Combined with our proposal to also remove partial fleet metering, this means that new train services will have a clear choice to either opt into the OTM charging approach, or be charged a default EC4T rate, which makes for a simpler overall charging structure. **Environmental impacts:** As described above, we consider that a more cost reflective EC4T charge (i.e. one which is billed using OTM and based on actual consumption of energy) would strengthen operators' incentives to optimise their energy consumption. This could serve to lower the overall amount of traction electricity consumed on the network, which would improve environmental outcomes and make the rail network more sustainable in the longer-term. We note some stakeholders' views that this proposal could have some perverse environmental impacts if it led to greater use of diesel traction. For the reasons set out in our October 2022 conclusions document (see paragraph 2.46 to 2.48), we do not consider this to be a likely outcome of this proposal.
Decision	We will remove the facility to obtain a new 'bespoke' modelled rate from the start of CP7, and remove the existing set of 'generic' consumption rates that are used to charge EC4T for some services, from the start of CP7. We consider that this change will increase the use of metered consumption on the network in the long term, primarily by encouraging new services to opt into OTM rather than relying on modelled consumption (groups 3 identified above). For some new

[19] As above, we have previously estimated the cost of an on-train meter to be around £12,000 for AC train-sets and £24,000 for DC train-sets.

	services without OTM capability (groups 4), opting into OTM may involve an incremental cost, but we consider these costs would be proportionate when set against the overall efficiency and environmental benefits of increasing the proportion of traction electricity consumption which is metered. Existing services (groups 1 and 2) would not be significantly affected by this proposal. In doing so, this change will also significantly simplify the administration of the EC4T charge, with associated cost savings.

8. Impact assessment on amending station long term charges categories

Background	The station long term charge (LTC) allows Network Rail to recover the cost of maintaining, repairing and renewing (MRR) operational property and station information and security systems (SISS) at stations. The methodology for calculating each station LTC varies, depending on whether the station is a 'managed' station (i.e. stations that Network Rail operates day-to-day) or a 'franchised' station (i.e. stations that Network Rail leased to a train operator). The key difference in approach is that for managed stations, the charge is calculated on a station-specific basis, while for franchised stations, a route-level forecast is developed and allocated to specific stations based on a set of station categories, which is based on passenger usage (known as a category averaging approach). There are currently 19 managed stations on the network. These are some of the network's largest and most complex stations, though some franchised stations are larger than some existing managed stations in terms of passenger footfall.
Proposed change to charging framework being considered	We have considered amending the LTC calculation methodology for the largest / most complex franchised stations such that they are also based on station-specific expenditure forecasts, i.e. they are calculated in a similar way to existing managed stations. This proposed change requires us to determine specifically which franchised stations should be classified as large / complex. We have considered the following definitions: • Option A: The six busiest stations in each of Network Rail's five regions, measured by passenger usage (i.e. 30 stations in total). • Option B: Option A, adjusted to take account of the different distributions of station sizes between regions, such that slightly more stations in the Southern region are included,

	and slightly fewer stations in the Scotland and Wales & Western regions. This results in a net addition of 12 stations. These options are set out in Table 4.1 of our April 2022 consultation. As Option B was our preferred definition in our April 2022 consultation, we have firstly considered the impacts of this proposal relative to the status quo. We have then considered the impacts of Option A relative to Option B.
Option B: Impacts on affected parties (relative to making no change)	
(1) Network Rail	**Ensuring efficient cost recovery**: This proposal should not affect Network Rail's ability to recover its total station expenditure. As Network Rail's overall expenditure forecasts are both set to recover its total station MRR costs, it should not be affected by the number of stations classified as large / complex. **Complexity / administrative burden:** This proposal will require Network Rail to calculate station-specific expenditure forecasts for slightly more stations on the network. This is likely to carry an administrative cost. However, this is not likely to be significant as the increase in the number of stations is relatively modest (i.e. 13 new stations which under this proposal currently follow the category-averaging approach and will become station-specific, offset by one station, Guildford, moving from station-specific to category-average). Network Rail is supportive of a modest increase in the derivation of station-specific LTCs, although it had a marginal preference for Option A, which resulted in a total of 30 stations (i.e. ten additional stations). We do not consider the net addition of 12 stations under Option B instead of ten under Option A would create undue administrative costs for Network Rail.
(2) Passenger operators (and commissioning authorities)	**Financial impacts:** This proposal is likely to result in changes to LTCs at stations that are moving from a category-averaging to a station-specific approach, as the basis for their LTCs will change. As noted above, there are 13 such stations included in Option B[20], although Guildford moving the other way means there is a net increase of 12.

[20] This counts Glasgow Central High / Low as separate stations, and Glasgow Queen Street High / Low as separate stations, as these have separate LTCs.

This could result in different LTCs for these stations, as they have been identified as the largest / most complex stations. Although the specific magnitude of any impact varies, it is notable that:

- The measure is expected to be almost cost/revenue neutral. The LTC for all the additional stations in year 1 of control period 7 (CP7) is expected to be 1.3% or £150,000 lower than it would be if the change were not implemented.
- The two stations with the largest expected increase in LTC in year 1 of CP7 over what they would have been charged under the old system are Gatwick Airport at £838,000 and London Marylebone at £666,000. The two with the largest expected saving are Vauxhall at £757,000 and Highbury & Islington (Low Level) at £750,000. Highbury & Islington is a special case as it was miscategorised in CP6 as a low charge rather than high charge station and undercharged. Highbury & Islington is considered as two stations by Network Rail, Highbury & Islington High Level and Highbury & Islington Low Level. The latest estimate is that the charge in year 1 of CP7 LTC for both of these stations had the proposed change not occurred would have been around £1 million per annum. Under the new station specific charge this declines to £200,000 for the Low level and £440,000 for the High level. The recategorisation has therefore resulted in a saving compared to what they would have been charged, had they been categorised correctly and the move to station-specific charges not occurred.
- The impact on passenger operators' overall LTCs would depend on its use of the stations which have changed categories relative to other stations. This is because removing these stations from the category-averaging approach would be likely to change LTCs for other stations in the relevant station category in that region/route. As it is likely that passenger operators will call at both types of station with some frequency, this would tend to offset any financial impact on the operators using these stations.

Over time, we consider this will increase transparency of, and allow for increased scrutiny over Network Rail's costs at its major stations. As discussed below, this should serve to strengthen incentives for Network Rail's station management to be more cost-efficient and ultimately reduce MRR costs for these stations.

	Cost-reflectivity: This proposal should lead to more accurate and cost-reflective station LTCs for two reasons. Firstly, it will result in a slight increase in the number of station specific LTCs (from 20 to 32), where the charge would be expected to reflect long-run MRR costs more closely at that specific station. Secondly, it removes these stations from Network Rail's region level forecasts, which means that station LTCs for other stations are more likely to be reflective of average expenditure for the stations in the relevant category for that region. We consider that a move to more cost-reflective station charging, even if this is relatively modest, is beneficial. This is because it can in principle result in more efficient network use, by prompting operators to consider the long-run costs that are caused by their use of stations.
(3) Station facility owners (SFOs)	**Financial impacts:** At franchised stations, Network Rail levies the total LTC on the SFO at that station, rather than individual passenger operators. However, as SFOs then recover a proportion of the LTC from other operators that call at the station, in line with each operator's share of vehicle departures from the station, the SFO is in practice only liable for a portion of the LTC. We therefore consider that the impact on SFOs is broadly similar to the impact on individual passenger operators as described above.

Option A: Impacts on affected parties (relative to Option B)

In general, the impacts of Option A will be very similar to Option B. This is because the two definitions are very similar in practice. The only differences are that Option B includes five stations not included in Option A (Brighton; Gatwick Airport; London Cannon Street; Vauxhall; and Wimbledon) and excludes three stations included in Option A (Bath Spa; Oxford; Paisley Gilmour Street).

We consider that Option B will better reflect those stations where total MRR expenditure is likely to be greatest. This is because the stations included in Option B (not Option A) are larger and more complex than those excluded from this definition. At the same time, it also still ensures the largest more complex stations in each region are removed from the region/route-level forecasts that are used to set franchised station LTCs. Therefore, while the difference is likely to be minor, we consider that cost efficiency and cost-reflectivity will be better-served by calculating station-specific LTCs for the set of stations under Option B.

Both options are simple and provide benefits, however Option B clearly captures the larger and more complex stations better than does Option A. As such it will provide the

greatest incentive impact for little additional administrative burden. It is therefore the preferred option.	
Decision	Network Rail will calculate LTCs for the stations set out under **Option B** using station-specific expenditure forecasts. All other station LTCs would be calculated using a category averaging approach, currently used to calculate franchised station LTCs. We consider that this will strike a more appropriate balance between cost efficiency and cost-reflectivity than the existing distinction used to determine LTC calculation approaches (i.e. based on whether a station is managed or franchised). Furthermore, it is not envisaged to have significant impacts on Network Rail's cost recovery or on the financial position of most passenger operators who use these stations. There may be a moderate impact for some specific operators, particularly Arriva Rail London, which uses Highbury & Islington station (the station with one of the lowest LTCs that is subject to a change of methodology). However, the change in methodology, will be more reflective of the correct MRR costs at this and other stations.

9. Impact assessment on amending the station long term charges methodology for new franchised stations

Background	The station long term charge (LTC) allows Network Rail to recover the cost of maintaining, repairing and renewing (MRR) operational property and station information and security systems (SISS) at stations. To calculate LTCs for franchised stations during control period 6 (CP6), Network Rail forecasts total operational property and SISS MRR expenditure at a route level for the next control period. For the operational property element, stations are grouped into several categories based on passenger usage. Total route-level expenditure is allocated to those station categories in line with each category's share of the relevant route's long-term average renewal expenditure. The resulting cost for each station category is then allocated equally to every station within that category. The one exception to this is for stations that open within a control period. That is because a newly opened station is expected to incur lower maintenance and renewals costs early in its life. In PR18, we asked Network Rail to review the evidence base underpinning the LTC for new stations. Network Rail's analysis indicated that the operational property element of the LTC for new stations should be set at 10% of the forecast expenditure levels for existing stations in the same route and station category until the end of the control period during which the station opened. This is how LTCs for new stations are set in CP6. For control period 7 (CP7), the move from route-level to region-level expenditure forecasts means that stations are now being allocated a share of regional maintenance, renewal and repair expenditure, instead of route-level expenditure. Although this will not affect total station expenditure, it does affect the allocation of expenditure to individual stations, particularly where different routes within a given region had significantly different station portfolios.

Proposed change to charging framework being considered	We have considered a small amendment to the methodology for calculating station LTCs, such that Network Rail categorises all newly opened stations as 'new' for a fixed five-year term from the date of opening (regardless of when in the control period they opened) and sets the LTCs to reflect this. This would mean that new stations incur a lower operational property charge for the same period of time, regardless of when in the control period they open. This increases the consistency of treatment between new stations.
Impacts on affected parties (relative to making no change)	
(1) Network Rail	**Financial impacts:** This proposal should not affect Network Rail's ability to recover its total station expenditure. Under the current approach to charging new stations, Network Rail's route and now region-level plans capture forecast expenditure for all existing franchised stations which are operational at the start of a control period, including those which opened during the previous control period. Franchised station LTCs are then set to recover total route and now region-level costs in aggregate. Under this proposed change, franchised station LTCs would still be set so that in aggregate, they continue to recover MRR costs for operational property and SISS (though it would affect the precise profile of franchised station LTCs in a route/region where a station has opened in the previous control period).
(2) Passenger operators	**Financial impacts:** This proposal would result in a lower LTC for a new station that has opened during CP6 for a portion of CP7, and a slightly higher LTC for all other franchised stations (to ensure total forecast expenditure continues to be recovered at regional level). It would therefore have some impact on the station charges paid by passenger operators, depending on the extent to which they call at newly opened stations relative to existing stations. We have not quantified the financial impacts of this proposal on passenger operators, but we expect them to be small. This is because: • This proposal primarily affects LTCs paid for calling at new stations that have opened in CP6. So far in CP6, we understand just ten new stations have opened (out of around

	2,000 stations). As there is such a small number of new stations compared to exiting ones, the impact is likely to be very small. • The proposal also affects new stations that open in CP7. However, we would expect the impacts to be small, as there is likely to be a small number of new stations compared to existing ones.
(3) Station facility owners (SFOs)	**Financial impacts:** At franchised stations, Network Rail levies the total LTC on the station facility owner (SFO) at that station, rather than individual passenger operators. However, as SFOs then recover a proportion of the LTC from other operators that call at the station, in line with each operator's share of vehicle departures from the station, the SFO is in practice only liable for a portion of the LTC. We therefore consider that the impact on SFOs is broadly similar to the impact on individual passenger operators as described above.
(4) Other impacts	**Consistency and predictability:** This proposal would ensure that LTCs for new franchised stations are calculated consistently and are not dependent on the timing of when in a periodic review they open. We consider this would improve the overall consistency and predictability of the charging framework.
Decision	The operational property element of station LTCs for new stations that have opened during CP6 and those that open during CP7 will be set at 10% of that for existing stations in the same route/region and station category for a fixed five-year period from the date of opening. We consider this will ensure that LTCs for new franchised stations are calculated in a more consistent manner and will not have major impacts on Network Rail's cost recovery or on the financial position of individual passenger operators.

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