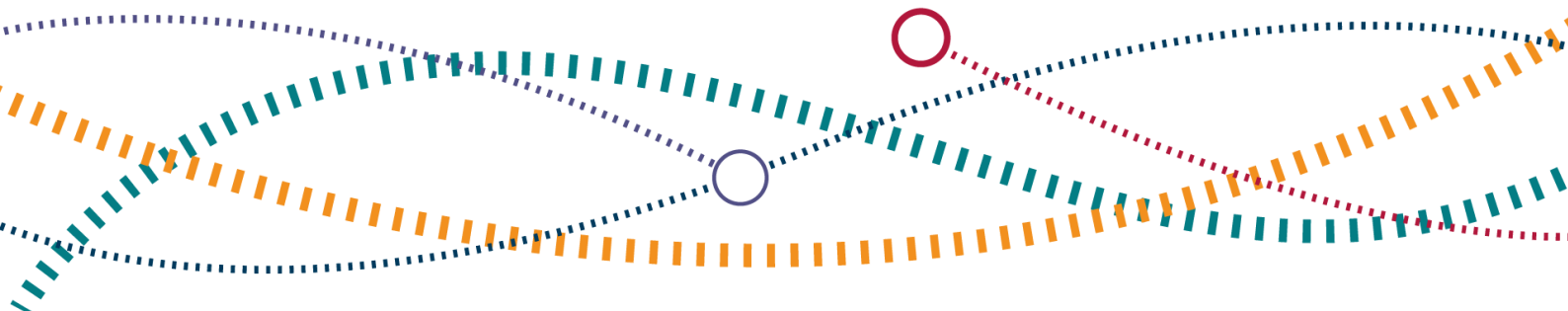




PR23 draft determination:

Overview – England & Wales

15 June 2023



About this document

This document provides an overview of our draft determination of the 2023 periodic review (PR23) for England and Wales.

PR23 will determine 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 draft determination sets out:

- our review of Network Rail's strategic business plan (SBP);
- decisions on its proposed 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 managing change and the financial framework.

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

Document type	Details
Executive summaries of our determination	<p>Our key proposals from our draft determination for:</p> <ul style="list-style-type: none"> • England & Wales • Scotland

Overviews of our determinations	What Network Rail will need to deliver and how funding will be allocated in: <ul style="list-style-type: none">• <u>England & Wales</u>• Scotland
Consolidated decisions	A summary of our draft decisions across Great Britain
Introduction	An overview of PR23 and background to our draft determination
Settlement documents	Detailed draft decisions for each of: <ul style="list-style-type: none">• Scotland• Eastern region• North West & Central region• Southern region• Wales & Western region• System Operator
Supporting documents	Technical assessments of: <ul style="list-style-type: none">• 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: <ul style="list-style-type: none">• Financial framework• Access charges• Schedules 4 & 8 incentives regimes• Managing change

Responding to the consultation on our draft determination

We are consulting on our draft determination and welcome comments from stakeholders on any of our documents which form the draft determination on or before 31 August 2023.

Responses should be submitted in electronic form to our PR23 inbox:

PR23@ORR.gov.uk. We request stakeholders provide their response using [this proforma](#).

We intend to publish all responses on our website alongside our final determination in October 2023. We intend to publish all responses on our website alongside our final determination in October 2023. Annex A to our proforma document sets out how we will treat any information provided to us, including that which is marked confidential.

Next steps

After taking account of stakeholder responses, we expect to issue our final determination on Network Rail's delivery and funding for CP7 by 31 October 2023.

We expect to issue our review notices by December 2023 and, subject to Network Rail's acceptance, issue notices of agreement and review implementation notices. These will give effect to the decisions made during PR23 in time for CP7 to commence from 1 April 2024 and for Network Rail to develop its plans for delivery.

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1. Introduction

Context

- 1.1 Periodic reviews like PR23 are one of the principal mechanisms by which ORR holds the infrastructure manager for the mainline rail network in Great Britain, Network Rail, to account and secures value for money for users and funders of the railway. The periodic review determines what 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.
- 1.2 PR23 is being conducted amid a complex and challenging context for the rail industry: the sector continues to recover from the pandemic against a backdrop of inflationary pressures, recent industrial action as well as declines in passenger and freight train performance. Policy development around rail reform continues. The sector must also meet the challenges of climate change by contributing to a low-emissions railway and planning for severe weather events. In recognition of this context, our approach to PR23 is designed to deliver a secure basis for Network Rail and its stakeholders to plan, invest and provide services.
- 1.3 We set out at the start of PR23 in our June 2021 launch letter that our focus during the process would remain on four objectives:
- **safety:** the rail network must be maintained in a safe condition for all of its users, workers and the public;
 - **performance:** the railway must be customer-focused, making effective use of its capacity to deliver passenger and freight services that are punctual and reliable;
 - **asset sustainability:** assets must be planned and managed to deliver their greatest value over the course of their operational lives; and
 - **efficiency:** Network Rail must be subject to stretching but realistic efficiency targets.
- 1.4 There also remain considerable challenges to address, such as the impact of severe weather on the network. We will challenge Network Rail to deliver more for both current and future customers, drive further efficiencies and support the

effective operation of the whole railway, joining up our approach to economic and health and safety regulation in doing so.

- 1.5 Network Rail is funded by the UK and Scottish governments for its activities in England & Wales and Scotland respectively. The UK and Scottish government's continued support for the railway allows for a real-terms increase in expenditure for operating, supporting, maintaining and renewing the network across Great Britain during CP7. This amounts to approximately £44.8 billion in total across the GB network (projected expenditure net of electricity traction costs, which are passed through directly to train operators). This compares to £42.7 billion in CP6 (expressed in 2023-24 prices).
- 1.6 In this document we provide an overview of our draft determination for England & Wales. We provide an [overview for Scotland](#) in a separate document. Accounting for all sources of funding, [including the UK Government's Statement of Funds Available \(SoFA\)](#), Network Rail's expenditure in England & Wales is forecast to be £40.0 billion in CP7, compared to approximately £38.2 billion in CP6 (expressed in 2023-24 prices, all net of electricity traction costs). However, reflecting wider fiscal conditions, funding for CP7 is constrained relative to the needs of the asset renewal cycle. This requires Network Rail to make choices about how expenditure should be prioritised to deliver best value for the railway now and in the future.
- 1.7 The UK and Scottish governments each also set out High-Level Output Specifications (HLOSs) detailing what they expect the available funding to deliver in the relevant nation. The HLOS sets out each government's requirements across a broad range of areas. The [UK Government's HLOS](#) for England & Wales wants Network Rail to maintain a strong standard of safety, deliver cost efficiency and support revenue generation while contributing to national and local growth priorities and levelling up, and maintain focus on punctuality, reliability and asset sustainability, including resilience to climate change. It also sets requirements relating to security, system operation, stakeholder engagement, and financial management.
- 1.8 The UK Government's HLOS and SoFA were finalised later than anticipated. Consequently, Network Rail's plans for CP7 have been produced to challenging timescales and continue to evolve. Our assessment of these plans has taken account of this and we have also sought to evaluate new information provided to us since we received Network Rail's plan at the end of February 2023. Network Rail subsequently published this plan on 19 May 2023.

- 1.9 At this point in the process, we are issuing our draft determination based on the information as it currently stands so that we can obtain stakeholder views. Our draft determination is based on most of the information Network Rail has provided to us to date.
- 1.10 During the consultation period (which runs until 31 August 2023) we expect Network Rail to consider our proposals for how the available funding is used and the outcomes that should be delivered in return. We expect its response to set out clearly:
- any new evidence that it considers we should take account of for our final determination, including evidence that was not provided in sufficient time for consideration ahead of our draft determination and which remains relevant;
 - any changes to its proposals, supported by necessary evidence; and
 - responses to the actions we have set in our draft determination.

Our assessment of Network Rail's plan and draft determination

- 1.11 We have carried out a detailed review of Network Rail's plans. For England & Wales, the plan includes two scenarios for expenditure. The first assumes that a £0.5 billion centrally managed fund is used to manage risks that emerge during CP7. We refer to this plan as the 'full plan' because it does not require any renewals to be descoped to manage risk. The second is a 'risk-adjusted' plan which is supported by descoping of up to £1.5 billion of renewals and other activities across Network Rail's regions in England & Wales if risk materialises. Our assessment and draft determination considers Network Rail's risk-adjusted plan, which creates a £2.0 billion total provision for risk. This is because our experience of monitoring Network Rail during CP6 and the uncertainty likely in CP7 suggests that more than £0.5 billion will be needed to manage unanticipated risks and that this plan is the most likely to be delivered. Our assessment of the risk-adjusted plan has challenged whether it:
- is consistent with the UK Government's HLOS and SoFA;
 - makes appropriate choices between maintaining the network, renewing it to raise performance levels delivered to passenger and freight operators in the near-term and maintain asset sustainability;
 - includes a reasonable degree of stretch;

- provides a credible response to challenges which have emerged during CP6 (e.g. on weather resilience);
- is deliverable; and
- would enable Network Rail to continue to operate its network safely and meet its legal obligations.

1.12 Our assessment and subsequent draft decisions are consistent with our legal duties, including those set out in the Railways Act and the Equalities Act, and the guidance provided to ORR by the UK Government.

1.13 Our draft determination sets out for CP7:

- how the available funding should be used, what should be delivered in return (including on train performance) and how we will hold Network Rail to account for delivery of the outcomes specified in PR23;
- changes to the charges and incentives framework (including the proposed infrastructure charges, incentive rates and performance benchmarks that will feature in track access contracts); and
- settlement decisions for the England & Wales regions (Eastern, North West & Central, Wales & Western, Southern), Scotland and the System Operator (SO).

Structure of this document

1.14 In the following sections of this document, which considers England & Wales, we provide our key messages on our PR23 draft determination followed by an overview of our determination in the following areas:

- outcomes;
- asset performance and sustainability;
- health and safety;
- efficiency, headwinds, tailwinds, general inflation and input prices;
- other sources of income;
- risk funding;
- access charges;
- incentives;
- financial framework; and
- Managing Change.

- 1.15 The draft decisions and proposals summarised in this document for England & Wales and a separate settlement document for Scotland are combined in our PR23 draft determination: [consolidated list of decisions, proposals and actions document](#).
- 1.16 This document also includes three annexes. Annex A demonstrates how Network Rail's plan and any adjustments we propose in our draft determination deliver on the UK Government's HLOS. Annex B sets out our proposed success measure trajectories for England & Wales in CP7 year 5 in comparison to the forecasts in Network Rail's plan. Annex C presents the income and expenditure Network Rail proposes for CP7 in Great Britain and England & Wales.

2. Key proposals

2.1 Key proposals from our draft determination for England & Wales are as follows:

- We expect no further decline in train performance, and for Network Rail to deliver ambitious but deliverable improvements for passengers and freight customers.
 - Network Rail should reconsider its prioritisation of a small proportion of expenditure to fund core renewals.
 - We expect Network Rail to demonstrate its understanding of, and how it will manage, the change in risk profile which results from conducting fewer renewals.
 - Network Rail should focus on its risk-adjusted plan to maximise its risk provision and so support it to manage potentially significant risks.
 - The proposed efficiency target is stretching but realistic and we anticipate the overall funding will be adequate for Network Rail to deliver CP7 commitments.
 - Access charges will support freight growth ambitions while ensuring that rates move closer towards being fully cost reflective.
 - Contractual incentives will be adaptable to potential rail reform and payment rates will be lower.
-

3. Outcomes with a focus on train performance

3.1 The CP7 outcomes framework sets the requirements that Network Rail needs to deliver for the funding it receives. It will also be one of our key tools for monitoring Network Rail's compliance with its licence, as set out in our proposed [Holding to Account policy](#) for CP7.

Outcomes framework

3.2 We consulted and subsequently concluded on the [CP7 outcomes framework](#) in 2022. This framework includes a focussed set of top-tier 'success measures' that will be the headline indicators we will use to publicly hold Network Rail to account in CP7, see Table 4.1 below. We are proposing 'baseline trajectories' for each success measure and each region in this draft determination.

Table 3.1 Success measures – CP7 outcomes framework

Outcome area	Success measures
Train performance: passenger	On Time Cancellations
Train performance: freight	Freight Cancellations
Asset sustainability	Composite Sustainability Index (CSI)
Efficiency and financial performance	Financial Performance Measure (FPM) (opex/capex split) Efficiency (£)
Environmental sustainability	Biodiversity Units Carbon Emissions scope 1 and 2
Freight growth	Freight net tonne kilometres moved

3.3 Our draft decisions for each success measure are informed by the forecasts Network Rail provided in its plan and our analysis, including independent reporter reviews; comparison to historical data and evidence from our ongoing monitoring. Our draft decisions seek to ensure that Network Rail is held to account against stretching but realistic targets which are consistent with the aims set out in the UK

Government's HLOS. We provide more information on our assessment and draft decisions in the PR23 draft determination: [supporting document on outcomes](#). Our proposed success measure trajectories for each year of CP7 are set out in the relevant settlement document for each of Network Rail's regions. In Annex B to this document we present our draft success measure trajectories for England & Wales in CP7 year 5 in comparison to the forecasts in Network Rail's plan.

Train Performance

- 3.4 In this section we set out our draft decisions for train performance and freight growth success measures for CP7.
- 3.5 Passengers and freight customers expect trains to be reliable and run on time. Whole industry train performance is therefore important for maintaining and improving satisfaction for those using the railway and Network Rail must play its part in delivering this. It has been a continued focus for us during CP6 and we will continue to hold Network Rail to account by setting ambitious but realistic targets for CP7, consistent with the UK Government's HLOS.
- 3.6 We recognise that accurately forecasting whole industry train performance is challenging for Network Rail. It depends on the contributions of train operators as well as Network Rail and is impacted by several external factors, such as changes in passenger demand following the coronavirus (COVID-19) pandemic and extreme weather events. Network Rail has responded to this uncertainty by presenting train performance forecasts by region in the form of ranges. We consider that success measures for each region should take the form of point estimates (i.e. single values). This is because point estimates set clear expectations for the level of performance we expect Network Rail to achieve, aligned with UK Government's expectation. In addition, our approach is consistent with the use of point values in the incentive regime.
- 3.7 Recognising the difficulty in accurately forecasting train performance, we are applying an appropriate level of flexibility in how we hold Network Rail to account for its contribution to its delivery (as proposed in our recently published [policy consultation](#)) and our proposals for managing change during CP7.
- 3.8 We have reviewed Network Rail's forecasts for each train performance success measure in its plan for England & Wales to determine what is an ambitious yet realistic level of performance. For the 'On Time' measure in Network Rail's Eastern, Southern and Wales & Western regions, we consider that the most challenging (upper) limit of Network Rail's forecasts is appropriate, except where

the trajectory represents a deterioration on current performance. Our baseline trajectories largely adopt these levels or, where Network Rail proposed deteriorations during the control period, performance can be held at current levels. We consider that the range Network Rail proposed for the North West & Central region is insufficiently challenging and so we set a more stretching trajectory for this region. See tables B.1 and B.2 in Annex B for our baseline trajectories in CP7 year 5 compared to those proposed in the Network Rail's plan.

- 3.9 We do not consider Network Rail's regions' Passenger Cancellations forecasts are ambitious, especially when compared to historic performance. We are setting a more stretching trajectory for all regions of 2.3% for each year of CP7. This is based on the best of the average performance across Network Rail's regions in England & Wales and in Scotland since 2014-15, excluding years when the pandemic and industrial action had a significant impact on performance.
- 3.10 Our assessment of each region's 'Freight Cancellations' forecasts considered that the ambitious, yet realistic, level is closely aligned to the lowest (and therefore most challenging) limit of Network Rail's forecast ranges. We are therefore setting the CP7 baseline trajectory at this level of cancellations. See table B.3 in Annex B for our baseline trajectories in CP7 year 5 compared to those proposed in Network Rail's plan.
- 3.11 Delivering whole industry train performance relies on collaborative cross-industry solutions, where Network Rail needs to work with other industry parties to identify innovative improvements. To support this, we propose a Performance Improvement and Innovation Fund (PIIF) of £0.04 billion in England & Wales which builds on a similar dedicated fund in CP6. In CP7 the PIIF will only apply in England & Wales. We provide more information on our proposals for the CP7 PIIF in the PR23 draft determination: [supporting document on sustainable and efficient costs](#).

Success measures related to other HLOS priorities

- 3.12 The UK Government's HLOS also includes a requirement for Network Rail's plans to have a stretching but realistic freight growth target. We consider that Network Rail's proposed freight growth forecasts recognise the important role of freight in achieving broader economic and environmental outcomes and are informed by robust analysis. We expect Network Rail to set out clear plans to work with the industry to facilitate these targets for freight growth, and we will monitor Network Rail's contribution. See table B.4 in Annex B for our baseline trajectories in CP7 year 5 compared to the proposal in Network Rail's plan.

- 3.13 The HLOS also requires Network Rail to improve environmental outcomes by moving towards a low-emissions railway and conserve and enhance biodiversity. Except for the Southern region, we intend to set success measure trajectories for Carbon Emissions scope 1 and 2 and Biodiversity Units using Network Rail's forecasts. We consider that Network Rail's forecasts for the Southern region are insufficiently challenging and we propose more stretching trajectories for the carbon and biodiversity measures. See tables B.5 and B.6 in Annex B for our baseline trajectories in CP7 year 5 compared to those proposed in Network Rail's plan.
- 3.14 We present our draft decisions for the Composite Sustainability Index (CSI), efficiency and financial performance success measures alongside our proposals on asset performance and sustainability and efficiency below, in sections 4 and 6 respectively.

4. Asset performance and sustainability

- 4.1 In this section we explain our proposals on asset performance and sustainability. We also provide more information on our assessment and proposals in our PR23 draft determination: [supporting document on sustainable and efficient costs](#).
- 4.2 The constrained funding means that, in comparison to CP6, Network Rail proposes to undertake fewer renewals of core assets during CP7. Network Rail's risk-adjusted plan proposes to spend approximately £17.8 billion on asset renewals during CP7, which includes allocation of renewals for National Functions. This is approximately 3% less than in CP6. Expenditure on core renewals is planned to be £14.7 billion, which is 11% less than in CP6. Core renewals covers: track, off-track, signalling, level crossings, earthworks, drainage, buildings, electrification and fixed plant, and telecoms. The difference between expenditure on total renewals and core renewals is due to expenditure on European Train Control System (ETCS), National Functions projects and other capital spend, e.g. facilities and plan such as on-track machines and fleet support.

Table 4.1 Changes in Network Rail's proposed OSMR expenditure during CP7 in comparison to CP6

	CP7 direct expenditure (£ billion, 2023-24 prices)	CP7 allocated expenditure (£ billion, 2023-24 prices)	CP7 total expenditure (£ billion, 2023-24 prices)	Change in total expenditure compared to CP6 (%)
Operations	3.8	-	3.8	4%
Support	1.6	3.1	4.7	-9%
Maintenance	9.5	0.5	10.1	7%
Renewals	14.9	2.9	17.8	-3%
<i>Of which core renewals</i>	14.2	0.5	14.7	-11
Industry costs, rates, & traction electricity	-	5.7	5.7	38%
Risk provisions	1.5	0.5	2.0	n/a

	CP7 direct expenditure (£ billion, 2023-24 prices)	CP7 allocated expenditure (£ billion, 2023-24 prices)	CP7 total expenditure (£ billion, 2023-24 prices)	Change in total expenditure compared to CP6 (%)
Electricity for Traction (EC4T) income	-	-4.1	-4.1	54%
Total expenditure less EC4T	31.3	12.7	40.0	5%

- 4.3 Within each of its regions, Network Rail has sought to prioritise expenditure on renewals in a manner which is consistent with the UK Government’s HLOS to support revenue generation while contributing to national and local growth priorities and levelling up. It refers to this as its ‘market-led’ approach. We are satisfied that the constrained funding which requires Network Rail to prioritise its expenditure does not need to result in undue concerns for the safety of assets or performance during CP7, if risks are fully assessed and managed. However, the funding does not allow Network Rail to take a lowest whole life cost approach to managing railway infrastructure. Consequently, returning to lowest whole life cost approaches in future control periods will require additional expenditure beyond the CP7 level.
- 4.4 Network Rail proposes to manage the risks posed by the reduction in renewals by increasing its maintenance activities. It also proposes to use more operational controls, for example speed restrictions. Nevertheless, it still anticipates an increase in service affecting failures of assets towards the end CP7 and a decline in its overall measure of asset sustainability. We have sought to address these risks in our draft determination proposals, which we describe below.
- 4.5 Our assessment of Network Rail’s plan, informed by our assurance reports and ongoing reporting and monitoring during CP6, has identified that the needs of some core assets in each of Network Rail’s regions have not been sufficiently prioritised. We anticipate that the impact on asset sustainability would, in turn, affect train performance in future years and presents risks to the safe operation of the network. We have identified most concern in: earthworks; structures; operational property and track. Our assessment is broadly consistent with the assessment conducted by Network Rail’s own Technical Authority which was included in its plan.

- 4.6 We consider that approximately £0.55 billion more expenditure on core renewals is required in England & Wales to mitigate potential risks associated with core assets during CP7. This would aim to mitigate potential risks to asset performance now and in future control periods.
- 4.7 Our assessment has also identified expenditure on some projects and programmes that is higher than we consider is necessary during CP7. The opportunities that we have identified could release approximately £0.8 billion of expenditure which could be reallocated to core renewals. Specifically:

<p>Reprofiling activity on West Coast Mainline North (WCML(N)) could reduce expenditure by £0.30 billion during CP7</p>	<p>While many of the assets are life expired, Network Rail proposed that some of these works could be delivered in CP8-CP10 but should be brought forward to CP7 to deliver as consolidated packages of work for efficiency and to complete any disruptive works before the planned introduction of High Speed 2 services on the WCML(N) line, at the end of CP8.</p> <p>Complex programmes with large numbers of interactions with external stakeholders are likely to be delayed. Our analysis of work in the North West & Central region shows an average 12-18 months slippage for these types of programmes. On that basis we consider that 25% of the proposed work is likely to slip into CP8 reducing cost in CP7 by £0.30 billion and should be reprofiled into the next control period.</p>
<p>An efficiency challenge applied to the digital signalling programme could reduce expenditure by £0.26 billion</p>	<p>The digital signalling portfolio includes infrastructure renewals, fleet fitment, enabling projects, research, development and innovation projects and CP6 legacy projects. All of these contribute to Network Rail renewing its conventional signalling assets to ETCS technology.</p> <p>Our assessment of these complex projects and programmes indicates likely delays to deliverability of digital signalling infrastructure renewals and a commensurate efficiency challenge should be applied across the portfolio to reduce unit rates. Our proposal is informed by learning from the East Coast Digital Programme (ECDP) for which unit rates for digital signalling are lower than those forecast in Network Rail's CP7 plans.</p>

£0.03 billion could be saved by not refurbishing the high output plant

The high output plant is a set of machinery which enables track renewals activity to be conducted mechanically, including the renewal of rails, sleepers and ballast, with an associated efficiency saving.

Network Rail's CP7 plans have not been able to leverage efficiency from high output plant. To date, the regions have elected not to use the service in CP7. Network Rail must consider the best way of delivering a service in CP8 noting required volumes, service reliability, staff competence, equipment obsolescence, purchase lead times and value for money.

Network Rail continues to consider use of high output in CP7 and we expect it to clearly set out its approach in its response to the draft determination.

£0.09 billion could be saved by applying an efficiency challenge to Route Services projects

Route Services is one of the national functions and supplies Network Rail's routes with services that the national team is best placed to provide (i.e. centralised capital spend projects such as infrastructure monitoring and electrical safety delivery).

Consistent with our [technology adoption targeted assurance report](#), we consider that this efficiency challenge would encourage better scope definition and control between Route Services and Network Rail's regions to enable delivery. It is not intended to be applied to digital signalling programmes or impact delivery of the electrical safety programme, because separate draft determination proposals address issues we have identified in these areas.

Expenditure could be reduced by £0.14 billion if Project Reach is not prioritised during CP7

Project Reach is a joint venture with an external telecommunications provider which aims to use the rail corridor as a route for cabling, with the benefit to Network Rail of access to modern cables with increased capacity.

Project Reach represents a lower priority for use of OSMR funding than other core asset renewals. However, we note Network Rail's commitment to Project Reach and we anticipate that other options for releasing expenditure may be preferable.

- 4.8 It is for Network Rail to decide how it prioritises the constrained funds available for CP7. From our review of Network Rail's programmes and other activity proposed for CP7, the prioritisation, phasing or efficiency with which these are delivered provides Network Rail with a number of options to fund the required increase in expenditure on core asset renewals.
- 4.9 For our draft determination we have adjusted Network Rail's regions' forecast CSI based on our proposals to increase expenditure on renewals. We recognise that

forecasting CSI is complex, and we expect Network Rail's response to our draft determination to include more accurate forecasts which also reflect any reallocations of expenditure which it considers appropriate. See table B.7 in Annex B for our proposed trajectories in CP7 year 5 compared to those proposed in the plan.

5. Health and safety

- 5.1 A key consideration in our assessment of Network Rail's plan is whether the proposals will allow Network Rail to continue to operate safely and in line with its legal requirements. It is not ORR's role to determine what is reasonably practicable or advise Network Rail how it should meet its legal obligations. In this section we summarise our draft determination findings regarding health and safety. We also provide more information on our assessment and proposals in the PR23 draft determination: [supporting document on health and safety](#).
- 5.2 Network Rail proposes to manage the risks posed by the reduction in renewals by increasing its maintenance activities and using operational controls, for example speed restrictions. However, our assessment (supported by the findings of Network Rail's own Technical Authority) identified insufficient demonstration of mitigations to manage the increase in risk posed from a limited set of core assets.
- 5.3 We recognise that the constrained funding available requires Network Rail to conduct fewer renewals and more maintenance during CP7 in comparison to CP6. We consider that the additional expenditure we propose on renewals in section 4 on asset performance and sustainability ought to address the main vulnerabilities we have identified in our assessment of its plan.
- 5.4 Network Rail must continue to assess and manage its risk exposure throughout CP7. We will also monitor risk exposure during CP7 through our monitoring and inspection work. For our final determination we expect Network Rail to provide evidence of how it will manage the change in risk profile which results from conducting fewer renewals, accounting for any increase in core renewals that it plans to take following our proposal.
- 5.5 We also expect Network Rail to demonstrate that its proposed maintenance plans are sufficient to support the increased demand on its maintenance function due to:
- renewals deferred from CP6;
 - delivering the action plans which implement the recommendations on weather resilience and climate change made in reports by Lord Mair and Dame Slingo on managing rail infrastructure in more frequent extreme weather (following the derailment of a passenger train at Carmont, Aberdeenshire in August 2020);
 - increased freight traffic;

- managing risks posed by ash dieback;
- the proposed decrease in renewals during CP7; and
- any maintenance backlog which remains following industrial action during 2022 and 2023.

5.6 The success of Network Rail's proposed approach is reliant on implementing its 'modernising maintenance' programme without losing knowledge, capability and expertise in many asset safety areas and safety specific advice roles. We are supportive of this programme but require Network Rail to demonstrate that it will deliver the necessary efficiencies within the resources available and sustain the required capability to maintain the assets.

5.7 We also expect Network Rail to pay particular attention to the renewals and maintenance needs of earthworks and associated drainage in each of its regions. Earthworks and associated drainage failures can have catastrophic consequences, for example the Carmont derailment. Our assessment of the Network Rail proposals on earthworks has identified concerns with:

- a reduction in the volumes of earthworks specific drainage Network Rail intends to deliver; and
- Network Rail's proposal not to use dedicated drainage teams, which is inconsistent with one of the recommendations made by Lord Mair following the Carmont derailment.

5.8 Therefore, we expect Network Rail to provide a clear rationale for its proposals regarding earthworks and drainage, and to demonstrate how it will implement the action plans developed following the reports from Lord Mair and Dame Slingso.

5.9 Finally, our assessment identified specific recommendations for Network Rail's proposed health and safety programmes during CP7. Ahead of our final determination, we expect Network Rail to:

- demonstrate how its strategic objectives for employee occupational health will be achieved;
- demonstrate how asbestos management will be assured during CP7;
- provide delivery plans and milestones for the ongoing investment in track worker safety to consolidate gains made during CP6 and improve longer term sustainability; and

- demonstrate plans and necessary expenditure to deliver the next phase of its fatigue improvement programme.

5.10 In summary, through the actions identified above we expect Network Rail to demonstrate how its proposals for CP7 manage health and safety risk so far as is reasonably practicable.

6. Efficiency, headwinds, tailwinds, inflation and input prices

- 6.1 In this section we set out our key draft determination proposals on efficiency, headwinds and tailwinds, and general inflation and input prices. We provide more information on our assessment and draft determination proposals in the PR23 draft determination: [supporting document on sustainable and efficient costs](#).

Efficiency

- 6.2 It is one of our core objectives for PR23 to encourage Network Rail to deliver as efficiently as possible. Network Rail proposes an England & Wales efficiency target of £3.4 billion in its full plan but under the risk-adjusted plan this value is £3.2 billion. The lower efficiency target in the risk-adjusted plan represents the reduction in efficiency opportunity from a lower level of renewals spend. As explained in the introduction in section 1, we focus on the risk-adjusted plan in our assessment. We consider that the associated efficiencies of at least £3.2 billion would be stretching but realistic and use the associated regional figures to set our efficiency success measure baseline trajectories (see Table B.9 in Annex B). Our assessment is informed by a range of information, such as targeted assurance reviews, benchmarking, evidence from our ongoing CP6 monitoring and comparisons with other regulated network industries. We have also reviewed the specific initiatives Network Rail proposes to deliver its £3.2 billion target. We present our assessment in full in the PR23 draft determination: supporting document on sustainable and efficient costs.

Headwinds and tailwinds

- 6.3 Headwinds and tailwinds are, respectively, uncontrollable increases and reductions in Network Rail's expenditure. Network Rail has not identified any material tailwinds. However, its plan includes £0.7 billion of headwinds in England & Wales. Network Rail has since suggested that its headwind assumptions could reasonably be reduced to around £0.3 billion. This would release approximately £0.4 billion of net funding and we have included this proposal in our draft determination.

Input prices and general inflation

- 6.4 Network Rail's risk-adjusted plan includes £1.3 billion of input price inflation in England & Wales (i.e. inflation in excess of general price inflation). We commissioned Europe Economics (EE) to review Network Rail's input price assumptions. Europe Economics' review identified several issues with Network Rail's approach, for example that it is inconsistent with precedents used in comparator sectors and uses a measure of inflation (RPI) which is no longer recognised by the Office for National Statistics. Europe Economics also recommended an approach to calculating input prices which has been successfully applied in comparable sectors. As described in the PR23 draft determination: supporting document on sustainable and efficient costs our draft determination applies Europe Economics' input price recommendations for staff, materials and contractor costs. Our adjustment reduces Network Rail's input price assumptions to £0.7 billion, which would release £0.6 billion of funding.
- 6.5 The plan Network Rail provided to us in February 2023 uses the Office for Budgetary Responsibility's (OBR's) November 2022 general inflation forecasts. In March 2023 the OBR updated its general inflation forecast. Network Rail estimates that the latest forecast adds £0.6 billion of cost to its proposals which must be allocated from within the SoFA.

Net adjustments

- 6.6 Our proposed adjustments to headwinds and inputs prices offset the impact of the OBR's latest inflation forecast and result in £0.40 billion of additional funding for use during CP7. In section 7 on other sources of income we explain that £0.30 billion of this surplus should be used to cover the small gap in income between Network Rail's plan and the assumptions in the SoFA. We are challenging Network Rail to achieve an additional £0.09 billion of income during CP7.
- 6.7 We propose that the net £0.19 billion of funding which remains unallocated after these adjustments is used for the Performance Improvement and Innovation Fund (£0.04 billion, see section 2 on Outcomes with a focus on train performance) and provision for risk (£0.15 billion, see section 8 on risk funding).

7. Other sources of income

- 7.1 In this section we set out our key draft determination proposals on ‘other income’. Other income excludes the Network Grant received from funders and income from track and station access charges by train operators. It largely consists of property income but a proportion consists of income from other sources, e.g. leasing stations to train operators, depots and facilities. We provide more information on our assessment and draft determination proposals in the PR23 draft determination: [supporting document on other income](#).
- 7.2 Network Rail anticipates a £0.30 billion shortfall in its income during CP7 in comparison to the forecast set out in the SoFA. This is driven in part by lower property income and changes to charges and incentives which Network Rail did not include in its planning assumptions. It is important that Network Rail generates the most efficient level of income that it receives from ‘other income’. This is because, all things being equal, if Network Rail increases other income, it reduces the demand on external funding and, more generally, the level of external funding that the company requires.
- 7.3 Network Rail is forecasting £3.9 billion of revenue from other sources of income across Great Britain in CP7. This is £0.5 billion (12%) lower than CP6. £3.7 billion of this income is forecast in England & Wales. We consider that Network Rail’s forecast in England & Wales in CP7 is too low and that it should be able to achieve an additional £0.09 billion in other income in CP7 from its property estate. We consider this is achievable if Network Rail reconsiders its:
- *Managed stations income*: Network Rail should update its forecasts for the latest rail industry passenger demand forecasts, as they look conservative compared to recent rail usage.
 - *Property sales*: Network Rail’s plan is not sufficiently developed. We expect further opportunities to be included.
 - *Revenue generating expenditure*: We consider that Network Rail will have opportunities for further stretch than currently indicated.

8. Risk funding

- 8.1 In this section we set out our draft determination proposals related to Network Rail's CP7 risk fund. We provide more information on our assessment and draft determination proposals in the PR23 draft determination: [supporting document on sustainable and efficient costs](#).
- 8.2 As described in section 1, our draft determination for England & Wales is based on Network Rail's risk-adjusted plan. This plan contains £2.0 billion of risk funding comprised of £0.5 billion in a central fund and £1.5 billion held as contingent funds across Network Rail's regions. Compared to the full plan (in which the £1.50 billion regional risk funding is budgeted for specific renewals and other activities rather than risk), our focus on the risk-adjusted plan substantially increases risk funding but is nevertheless well below the CP6 fund of approximately £2.7 billion (cash prices) which Network Rail had fully allocated by the end of year 4.
- 8.3 We anticipate considerable risks could arise for Network Rail during CP7, e.g. inflation; variable train performance; managing extreme weather; and, embedding of maintenance and other reforms. Even with better cost control and more targeted use of risk-funding than in CP6, we consider that £2.0 billion may be insufficient to manage risk and that where our scrutiny of Network Rail's plans – and Network Rail's further iteration of the plan – releases net funding, we propose that this is directed towards dedicated risk funding.
- 8.4 The net effect of the adjustments we propose in section 6 on efficiency, headwinds, tailwinds and input prices and section 7 on other sources of income are demonstrated in Table 9.1 below. As shown below, these do not release a great deal of additional funding (only circa £0.19 billion). Nevertheless, we propose that after £0.04 billion is allocated to the Performance Improvement and Innovation Fund. Network Rail should use the balance (£0.15 billion), and any additional funding from other sources, to increase its provision for risk.

Table 8.1 Our proposed adjustments to Network Rail’s levels of expenditure (£ billion, 2023-24 prices)

	Network Rail’s proposal (risk-adjusted plan)	Reduced expenditure or increased revenue	Additional expenditure
Input prices	1.30	-0.60	-
Headwinds forecast	0.70	-0.40	-
Property income challenge	-	-0.09	-
Income gap	-	-	0.30
Latest OBR inflation forecast	0.30	-	0.60
Train performance improvement and innovation fund	-	-	0.04
Risk fund	2.00	-	0.15
Total adjustments	-	-1.09	1.09

9. Funding our proposals

- 9.1 We anticipate the overall funding will be adequate for Network Rail to deliver its commitments across the network in CP7.
- 9.2 The £0.8 billion of options we have identified for Network Rail to reprioritise and rephase expenditure are more than sufficient to cover the required spend on core assets. Therefore, Network Rail can choose which of these it uses to fund our proposed additional £0.55 billion of core renewals, ensuring that revisions to the initial plan are minimised.
- 9.3 Our proposed adjustments to Network Rail's financial assumptions (i.e. to input prices, forecast property income and to account for anticipated cost of the latest Office for Budgetary Responsibility (OBR) inflation forecast) have a net effect of releasing £0.19 billion of funding. We propose this is used to fund the £0.04 billion Performance Improvement and Innovation Fund with the remaining £0.15 billion increasing Network Rail's provision for risk.

10. Access charges

- 10.1 Around a third of Network Rail's income comes from regulated access charges. As part of PR23, we determine the specific charges that train operators will pay to Network Rail for use of its track and stations during CP7.
- 10.2 We [concluded](#) on the structure of Network Rail's charges last autumn. We confirmed that we would largely retain the existing charging framework in its current form, while making a limited number of changes to simplify this framework and ensure that it remains effective as the planned transition from Network Rail to Great British Railways takes place. This framework applies across the national rail network, in both England & Wales and Scotland.
- 10.3 Our draft determination presents draft decisions on the outstanding issues related to access charges. Some of these have been informed by Network Rail's recalibration exercise, which it concluded in May. This recalibration indicates that variable and station charges are set to increase in real terms in CP7, compared to CP6. In light of this:
- We have reconsidered our existing phasing-in policy for the variable usage charge (VUC) paid by freight and charter operators. We intend to keep increases in these VUC rates on broadly the existing trajectory that was set in PR18, rather than increasing to the new cost-reflective levels as determined through Network Rail's PR23 recalibration. Under this approach, the average annual increase in the VUC over CP7 will be 3.3% for freight and 2.1% for charter operators in real terms (18% and 11% respectively, over the whole of CP7).
 - We consider this policy will continue to support the freight sector and funders' wider objectives for the sector, while ensuring that VUC rates move closer to recovering the direct costs on the network (as required by relevant legislation). VUC rates for passenger operators would continue to be set on a fully cost-reflective basis.
 - We will maintain the open access infrastructure cost charge (ICC) levied on interurban services broadly in real terms, which is equivalent to £5 per train mile (in 2023-24 prices). This is based on our revised assessment of what level of ICC interurban services can bear, and consideration of our wider statutory duties. Furthermore, in light of potential changes to Heathrow Express's track access agreement for CP7, we are also giving consideration

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to the relevance of an ICC for open access services to major airports. However, this is subject to further work which we expect to carry out between now and the end of July, and we will update industry accordingly.

- 10.4 We are also confirming our decisions to simplify the administration of the traction electricity (EC4T) charge, by removing the partial fleet metering charging approach; and by streamlining the use of modelled consumption rates from the start of CP7. This will encourage greater use of metering, which is the most accurate approach to charging for traction electricity.
- 10.5 Our full set of draft decisions for Network Rail's access charges is set out in our PR23 draft determination: [policy position on access charges document](#).
- 10.6 Network Rail will publish draft price lists for these charges in July 2023, taking account of the draft decisions set out above, as well as other decisions in this document which affect the level of charges e.g. in respect of Network Rail's spending on maintenance and renewals during CP7. We will continue to work with Network Rail during the rest of PR23 as it completes its recalibration exercise, in advance of the publication of final price lists (following our final determination) in December 2023.

11. Incentives

- 11.1 Network Rail's possessions and performance regimes (Schedule 4 and 8 respectively) compensate train operators for financial impacts arising from planned and unplanned service disruption. Schedule 4 places incentives on Network Rail to plan possessions efficiently so as to minimise disruption, and Schedule 8 places incentives on Network Rail and train operators to limit the disruption they cause and therefore to improve network performance.
- 11.2 As part of PR23, we have been reviewing the framework for these regimes. In October 2022, we published our [Schedules 4 & 8 conclusions](#) on the framework for the regime in CP7, which also included a consultation on outstanding matters. Overall, we have concluded that the frameworks for Schedules 4 and 8 should not significantly change in PR23, as set out in our October 2022 conclusions document.
- 11.3 The draft determination presents our provisional decisions on outstanding matters, and provides updates on recalibration. This can be found in PR23 draft determination: [policy position on the Schedules 4 and 8 incentives regimes document](#). Key policy positions are as follows:
- Train operators will be able to opt out of Schedule 4, which will mean they do not pay an access charge supplement and do not receive Schedule 4 compensation.
 - We will proceed with a proposal to allow for the removal of relevant Schedule 8 payments between Great British Railways and its contracted operators, if it is established and if there is sufficient legislative change to permit the removal of payments.
 - We will proceed with a new provision to allow for the update of Schedule 8 parameters during the control period. This will allow ORR to initiate recalibration of Schedule 8 in the event that there is a material change in circumstances.
- 11.4 In addition, we will implement a proposal to extend the Schedule 8 sustained poor performance mechanism to open access operators in CP7, providing for the ability for them to claim additional compensation when lateness and cancellations exceed a set threshold.

- 11.5 The processes to recalibrate Schedules 4 and 8 are now underway. During the PR23 recalibration we have made important choices, in consideration of the impact of the pandemic and the availability of new evidence on how passengers respond to service disruption. These will impact the Schedule 8 passenger regime in particular: one impact is a significant expected fall in Network Rail payment rates, due to the adoption of new evidence which shows that demand is less responsive to disruption than had been previously estimated. The policy position document provides more details. Parameters from the recalibrations are being released and approved in a phased way between May and November 2023.

12. Financial framework

- 12.1 In December 2022 we consulted on Network Rail's CP7 financial framework and, having reviewed the responses received, have decided to retain most features of the existing CP6 financial framework. More detailed information relating to all our decisions on Network Rail's CP7 financial framework can be found in our PR23 draft determination: [policy position on the financial framework document](#).
- 12.2 Network Rail recovers a proportion of its fixed costs through direct network grants from funders, which is in lieu of fixed track access charges (FTACs) paid by passenger operators on concession-style agreements. We will continue to seek provisional confirmation of the profile and level of network grant payments from funders before our final determination. Network Rail's Schedule of Fixed Charges will be set to be consistent with this. Written confirmation of finalised network grant documentation (including payment amounts) would then be submitted to ORR by December 2023.
- 12.3 To strengthen Network Rail's protection against an unexpected shortfall in grant funding compared to the provisional amounts set out in our draft determination (should this ever occur) we will, as part of our forthcoming consultation on changes to model access contracts, consult on amending the existing network grant dilution provisions in Schedule 7 of operators' track access contracts. This would shorten the delay between any shortfall in grant funding occurring and an increase in FTAC payments.
- 12.4 Given the increased complexity of the financial risks that Network Rail is likely to have to manage in CP7, we intend to increase our scrutiny of and, transparency around its management of financial risks in CP7.
- 12.5 We will specify cost of capital and cost of debt values for Network Rail in CP7 as part of our final determination. Whilst cost of capital and cost of debt are not necessary components of our PR23 determination of revenue requirements for CP7, the values and our approach to them are relevant for some contractual purposes e.g. calculating facility charges payable by third parties who have promoted enhancements financed by the governments through Network Rail. Our view is that the real, i.e. CPI inflation adjusted, pre-tax weighted average cost of capital (WACC) for Network Rail is 3.88% in CP7 and that the real pre-tax cost of debt for Network Rail is 2.33%. In CP6 these values were 4.15% and 2.45% (in CPI real terms). We will review the WACC values for CP7 to take account of any material changes in capital markets ahead of our final determination.

- 12.6 We expect that the UK Government's budget flexibility arrangements for England & Wales will remain broadly like those used in CP6. Given the nature of Network Rail's business which comprises large capital expenditure programmes as well as the operation and maintenance of the network for a five-year period in return for relatively fixed funding. Therefore, we see advantages in the flexibilities currently in place. In particular, in relation to supporting stable business planning and management of uncertainties. However, funders' budgetary processes are not a matter for ORR to decide. To ensure transparency around the factors that affect Network Rail's financial framework, we will continue to engage with DfT about its budgetary processes for CP7 and set these out as part of our final determination.

13. Managing Change

- 13.1 We introduced a managing change policy at PR18 for CP6. It is the mechanism by which ORR exercises change control over the delivery plans Network Rail is required to produce by the Department for Transport's Framework Agreement and Network Rail's licence. Our managing change policy defines different categories of change, how we should be informed of those changes by Network Rail and the actions that we might take in response.
- 13.2 Together with our holding to account policy, on which we consulted in April, as well as our periodic monitoring and reporting of Network Rail's delivery against its agreed plans, our Managing Change Policy is an integral part of how we ensure a robust regulatory framework. It ensures that the regulatory framework starts from a position of stability over the control period – which is important for investment and other incentive reasons – but is not so fixed as to risk becoming decoupled from market circumstances and ultimately sending distorted incentives to the infrastructure manager and/or train operators.
- 13.3 In July 2022 we consulted on our PR23 policy framework, which included key elements of the future of the managing change policy. Stakeholders were broadly supportive of continuing to use our managing change policy and we are consulting in our draft determination on an improved and updated policy for CP7.
- 13.4 We set our proposals in full in our PR23 draft determination: [policy position on managing change document](#). We propose to retain the majority of the existing policy as we consider it fit for purpose and are only proposing changes which we consider will improve clarity and reduce complexity.
- 13.5 The only exceptions (i.e. more significant changes) to the policy are the two noted below:

Consolidating the levels of change and renaming them

In the existing policy there are four levels which we have consolidated to three in the updated policy.

Notified changes will be less significant changes. Network Rail must notify ORR after the change has been made via a periodic submission change log. This is equivalent to the existing level one change in the current policy.

Consulted changes will be more significant changes. Network Rail must notify us before making the change. This will allow us to publish an opinion and notify funders. This merges level two and level three changes in the current policy.

Exceptional changes are consulted changes which risk undermining the settlements for Network Rail's business units. This allows us to add conditions or direct Network Rail not to make the change. This is consistent with the current policy.

Change control process for success and supporting measures, success measure baseline trajectories, and supporting measure forecasts

Our proposed managing change process will apply to: headline success measure baseline trajectories where there is a material change in circumstance; definitions or calculation methodology of headline success measures; addition or removal of headline success measures; supporting measure forecasts, definitions or calculation methodologies; and addition or removal of a supporting measure.

Material changes in circumstances for baseline trajectories will be defined as those: not anticipated in Network Rail's forecasts or the baseline trajectories set in our determination; which are likely to be outside of Network Rail's control; and lead to a sustained change in performance expectations in future years.

Changes to supporting measure forecasts will be classified as notified changes. All other changes will be consulted or exceptional changes.

Annex A: Affordability of the HLOS within the SoFA

- A.1 Network Rail considers that its business plan for CP7 is affordable in the context of the UK Government's HLOS and SoFA. We have discussed elsewhere in this document where we think Network Rail's plans need to be revised. However, we do not expect that its total expenditure requirement would exceed the funding in the SoFA. As such, we consider that the Secretary of State's HLOS is affordable.
- A.2 In the table below we set out how we consider Network's Rail's plan for England & Wales, including any proposals in our draft determination deliver on the UK Government's HLOS.

Table A.1: Delivery on the UK Government’s HLOS requirements

HLOS theme	Assessment	Draft determination references
<p>Health and safety</p>	<p>In the constrained funding environment, Network Rail proposes to reduce renewals and increase maintenance. Network Rail proposes to manage the risks posed by the reduction in renewals by increasing its maintenance activities and using operational controls, for example speed restrictions. However, our assessment (supported by the findings of Network Rail’s own Technical Authority) identified insufficient mitigations to manage the increase in risk posed from a limited set of core assets. Our draft determination proposes Network Rail should reallocate £0.55 billion of expenditure to core renewals. We consider that this should address the main vulnerabilities. For our final determination we expect Network Rail to demonstrate how it will manage risk so far as is reasonably practical, including by considering our recommendation on renewals.</p> <p>We also make several recommendations regarding Network Rail’s proposed health and safety programmes during CP7. We expect it to consider these in the next iteration of its plan.</p>	<p>PR23 draft determination: supporting document on health and safety (Asset management and renewals & worker safety and occupational health sections)</p> <p>PR23 draft determination: supporting document on sustainable and efficient costs (Part 1, Asset sustainability section)</p>
<p>Train performance</p>	<p>Our draft decisions expect improvements in train performance where we consider this is deliverable. Our draft success measure trajectories reflect that, in most regions, the more stretching end of the forecast ranges included in Network Rail’s plan are ambitious but deliverable. We make adjustments where a range of evidence suggests this is not the case.</p> <p>Our proposed increase in expenditure on core renewals aims to deliver better train performance outcomes than Network Rai’s original plan.</p>	<p>PR23 draft determination: supporting document on Outcomes (Train performance section)</p>



HLOS theme	Assessment	Draft determination references
Asset sustainability	<p>Our proposal that Network Rail should reallocate £0.55 billion of funding to increase expenditure on core renewals aims to mitigate the impact that the decline in asset sustainability would otherwise have on train performance and the safe operation of the network. For the final determination we expect Network Rail to update its forecasts of composite asset sustainability, reflecting any reallocations of expenditure it considers appropriate.</p>	<p>PR23 draft determination: supporting document on Outcomes (Asset sustainability section)</p>
Efficiency and financial performance	<p>We consider that a target of at least £3.2 billion efficiency in Network Rail's risk-adjusted plan to be challenging but deliverable.</p> <p>Our draft determination proposes several adjustments to Network Rail's planned expenditure where our assessment has identified that it does not propose to deliver its projects and programmes efficiently. It also encourages Network Rail to engage with the supply chain on its plans so that its proposals can be delivered efficiently and effectively.</p> <p>Finally, we consider that Network Rail's use of contingent renewals to manage risk in its full plan is more complex than the approach used in CP6. Our draft determination proposes it should focus on its risk-adjusted plan, which does not rely on this approach. It also advises that we will increase our scrutiny and transparency of Network Rail's management of financial risks during CP7.</p>	<p>PR23 draft determination: supporting document on sustainable and efficient costs (Part 1: Efficiency, headwinds, tailwinds, inflation and input prices and Risk findings sections; and Part 2: Efficiency, headwinds, tailwinds, inflation and input prices and Risk sections)</p>



HLOS theme	Assessment	Draft determination references
<p>Environmental sustainability and resilience</p>	<p>We have found that all regions and the System Operator make clear commitments to implementing the recommendations of Lord Mair and Dame Slingso with regard to earthworks and drainage. However, we expect Network Rail to provide a clear rationale for its proposals regarding earthworks and drainage, and to demonstrate how it will implement the action plans developed following the reports from Lord Mair and Dame Slingso.</p> <p>Each of Network Rail's regions has provided forecasts for the Biodiversity units and Carbon scope 1 and 2 emissions success measures. With the exception of the Southern region, where our draft determination adjusts the forecasts so they are more stretching, we consider Network Rail's proposals are consistent with the requirements of the HLOS.</p> <p>We have assessed Network Rail's Weather Resilience and Climate Change Adaption (WRCCA) plans. We found that the regions have taken a proportionate approach to risk assessment but provided a lack of detail about outputs and resultant risk exposure. Consequently, we have identified several actions for Network Rail to provide further detail on its proposal for environmental sustainability and resilience in its delivery plan.</p>	<p>PR23 draft determination: supporting document on health and safety (Earthworks and drainage section)</p> <p>PR23 draft determination: supporting document on Outcomes (Environmental sustainability section)</p> <p>PR23 draft determination: supporting document sustainable and efficient costs (Part 2, Environmental sustainability section)</p>
<p>Stakeholder engagement</p>	<p>While we recognise the compressed timescales within which Network Rail developed its plans, the England & Wales regions largely demonstrated a structured approach to stakeholder engagement. The best regions successfully fed back to their stakeholders how their input influenced their plans. Our PR23 settlement documents for each region provide our assessment and feedback.</p> <p>During CP7 we expect to see evidence of Network Rail's commitment to work with Government, train operators and other stakeholders to deliver whole-industry improvements. Our draft determination sets the expectation for this, for example by setting outcomes for train performance which measure contributions from the whole-industry and proposing a performance improvement and innovation fund to kick-start collaborative, cross-industry solutions.</p>	<p>PR23 draft determination: settlement documents for the Eastern, Southern, North West & Central, Wales & Western regions, and the System Operator</p>

HLOS theme	Assessment	Draft determination references
System Operation	We consider that the System Operator's approach is aligned to the requirements of the HLOS but we expect Network Rail to confirm the scope of the Industry Timetable Technical Strategy so that we can fully understand its plans for delivering performance and improvement efficiencies.	PR23 draft determination settlement document for the System Operator
Freight growth	Network Rail's plan contains a strong recognition of the actions it needs to take to support freight. Overall, we consider that the plan aligns well with the HLOS requirements for freight growth. Our draft determination success measure trajectories use Network Rail's forecast to grow freight between 2.9-8.6% across its regions during CP7.	PR23 draft determination: supporting document on Outcomes (Freight growth section)
Accessibility and inclusion	Network Rail's plan describes its obligations, ongoing work which will continue into CP7, and some new deliverables. We consider the plan to be a good basis for CP7 and the commitments made align with the HLOS.	PR23 draft determination: supporting document on Outcomes (Accessibility section)
Technology and Innovation	<p>Network Rail's plan includes £0.17 billion of expenditure on research, development and innovation (RD&I). We consider that this expenditure is proportionate in the constrained funding environment. Our draft determination sets out the expectation that Network Rail coordinates its RD&I activities with other bodies such as Rail Safety and Standards Board to share efforts and funding wherever possible and avoid duplication.</p> <p>Network Rail's plan includes £1.70 billion of expenditure on digital signalling. Our draft determination remains supportive of digital signalling and its long-term deployment in England & Wales but challenges Network Rail to ensure its costs for delivery are efficient.</p> <p>Our draft determination proposes a £0.04 billion train performance improvement and innovation fund to kick-start collaborative, cross-industry solutions with the aim of delivering train performance improvements.</p>	PR23 draft determination: supporting document on sustainable and efficient costs (Part 1: Research, development and innovation; and Part 2: Digital signalling and Research, development and innovation, including technology adoption sections)

HLOS theme	Assessment	Draft determination references
Economic development	Network Rail advises that its approach to business planning supports revenue generation while contributing to national and local growth priorities and levelling up. We consider that the approach presented in the plan seeks to address the HLOS requirement. It is a form of route criticality that is an established approach to prioritising investment in rail. We will maintain dialogue with funders and with Network Rail on how any further prioritisation should be treated, how it should be delivered and how Network Rail demonstrates this through its CP7 delivery plan.	PR23 draft determination: supporting document on health and safety (Market-led approach section) PR23 draft determination: supporting document on sustainable and efficient costs (Market-led approach section)

Annex B: CP7 year 5 baseline trajectories for England & Wales

B.1 This overview document for England & Wales provides our key draft decisions on success measure trajectories. The tables below set out our proposals for these trajectories in CP7 year 5 for (i.e. the final year of control period 7) in comparison to Network Rail’s forecast for the same year. See our PR23 draft determination: [supporting document on outcomes](#) for further information on our draft decisions on baseline trajectories.

Table B.1 Draft determination On Time trajectories compared to Network Rail’s forecasts, CP7 year 5

	Eastern	North West & Central	Southern	Wales & Western	England & Wales
ORR draft decision (CP7 year 5)	70.8%	63.9%	68.9%	64.8%	67.9%
Network Rail’s forecast (CP7 year 5)	68.4% to 70.8%	60.0% to 62.5%	66.0% to 68.9%	63.2% to 64.7%	65.2% to 67.5%

Table B.2 Draft determination Passenger cancellation trajectories compared to Network Rail’s forecasts, CP7 year 5

	Eastern	North West & Central	Southern	Wales & Western	England & Wales
ORR draft decision (CP7 year 5)	2.3%	2.3%	2.3%	2.3%	2.3%
Network Rail’s forecast (CP7 year 5)	2.7% to 3.8%	3.2% to 4.5%	3.1% to 4.3%	2.8% to 3.8%	3.0% to 4.1%

Table B.3 Draft determination Freight cancellation trajectories compared to Network Rail's forecasts, CP7 year 5

	Eastern	North West & Central	Southern	Wales & Western	England & Wales
ORR draft decision (CP7 year 5)	1.3%	1.0%	2.0%	1.5%	1.2%
Network Rail's forecast (CP7 year 5)	1.5% to 2.8%	1.0% to 1.9%	2.2% to 4.0%	1.6% to 3.3%	1.4% to 2.6%

Table B.4 Draft determination Freight growth trajectories compared to Network Rail's forecasts, CP7 year 5

	Eastern	North West & Central	Southern	Wales & Western	England & Wales
ORR draft decision (CP7 year 5)	7.5%	8.6%	2.9%	6.9%	7.5%
Network Rail's forecast (CP7 year 5)	7.5%	8.6%	2.9%	6.9%	7.5%

Table B.5 Draft determination Carbon scope 1 and 2 emissions compared to Network Rail's forecasts, CP7 year 5

	Eastern	North West & Central	Southern	Wales & Western	England & Wales
ORR draft decision (CP7 year 5)	-20.0pp	-21.0pp	-20.0pp	-20.0pp	-20.3pp
Network Rail's forecast (CP7 year 5)	-20.0pp	-21.0pp	-11.0pp	-20.0pp	-18.4pp

Table B.6 Draft determination Biodiversity units compared to Network Rail's forecasts, CP7 year 5

	Eastern	North West & Central	Southern	Wales & Western	England & Wales
ORR draft decision (CP7 year 5)	4.8pp	4.0pp	4.0pp	4.0pp	4.2pp
Network Rail's forecast (CP7 year 5)	4.8pp	4.0pp	2.0pp	4.0pp	3.9pp

Table B.7 Draft determination Composite sustainability index (CSI) compared to Network Rail's forecasts, CP7 year 5

	Eastern	North West & Central	Southern	Wales & Western	England & Wales
ORR draft decision (CP7 year 5)	-2.9pp	-3.5pp	-2.7pp	-2.5pp	-3.0pp
Network Rail's forecast (CP7 year 5)	-2.9pp	-3.5pp	-3.0pp	-3.1pp	-3.1pp

Table B.8 Draft determination Financial performance measure (FPM) compared to Network Rail's forecasts, CP7 year 5

	Eastern	North West & Central	Southern	Wales & Western	England & Wales
ORR draft decision (CP7 year 5)	0	0	0	0	0
Network Rail's forecast (CP7 year 5)	0	0	0	0	0

Table B.9 Draft determination Efficiency compared to Network Rail's forecasts, CP7 year 5 (£ million)

	Eastern	North West & Central	Southern	Wales & Western	England & Wales
ORR draft decision (CP7 year 5)	992	890	781	569	3,232
Network Rail's forecast (CP7 year 5)	992	890	781	569	3,232

B.2 Table B.10 below demonstrates how our draft determination compares to Network Rail's current and forecast train performance.

Table B.10 Comparison of our draft determination decisions on train performance compared to Network Rail's current and forecast train performance

	Current performance Period 1, 2023-24, MAA	Network Rail's CP7 year 1 forecast	Network Rail's CP7 year 5 forecast	ORR's draft decision for CP7 year 5
On Time	66.9%	Not provided	65.2% to 67.5%	67.9%
Passenger Cancellations	3.9%	Not provided	3.0% to 4.1%	2.3%
Freight Cancellations	7.9%	1.4% to 2.6%	1.4% to 2.6%	1.2%

Notes on Table B.10: 1) Passenger Cancellations performance data by region is currently in development. Current performance for Passenger Cancellations in England & Wales uses data from the Cancellations by train operator official statistics dataset as a proxy. 2) Network Rail did not provide CP7 year 1 On Time or Passenger Cancellations forecasts for England & Wales in its February plans.

Annex C: Network Rail's proposed CP7 income and expenditure

The tables below set out the income and expenditure Network Rail proposed in its plans for England & Wales and Great Britain during CP7. They are representative of the risk-adjusted plan and do not account for any of the proposals in our draft determination.



Table C.1: Network Rail's proposed CP7 income and expenditure in England and Wales

£m (2023-24 prices)	CP6		CP7					% vs CP6	
	2023-24	CP6 total	2024-25	2025-26	2026-27	2027-28	2028-29		CP7 total
Operations	0.7	3.6	0.8	0.8	0.8	0.7	0.7	3.8	4%
Support	1.1	5.2	0.9	1.0	0.9	0.9	0.9	4.7	-9%
Maintenance	1.8	9.4	2.0	2.0	2.0	2.0	2.0	10.1	7%
Renewals	3.4	18.4	3.5	3.7	3.7	3.7	3.2	17.8	-3%
Industry costs, rates, & traction electricity	0.9	4.2	1.3	1.3	1.2	1.0	1.0	5.7	38%
Risk provisions	-	-	0.5	0.4	0.5	0.2	0.4	2.0	n/a
Gross Revenue requirement	8.0	40.8	9.0	9.1	9.1	8.6	8.2	44.1	8%
Other income	-0.8	-4.3	-0.8	-0.8	-0.8	-0.8	-0.8	-4.0	-6%
Net revenue requirement	7.2	36.5	8.2	8.3	8.3	7.8	7.4	40.1	10%
Fixed Track Access Charge income	-1.1	-5.3	-1.1	-1.1	-1.1	-1.1	-1.1	-5.3	0%
Variable Charges	-0.6	-2.9	-0.6	-0.6	-0.6	-0.6	-0.6	-3.1	5%
Electricity for Traction (EC4T) income	-0.6	-2.6	-1.0	-0.9	-0.8	-0.7	-0.7	-4.1	54%
Schedule 4 and 8	0.4	1.9	0.4	0.5	0.5	0.5	0.4	2.3	25%
Schedule 4 access charge supplement	-0.3	-1.6	-0.4	-0.5	-0.5	-0.5	-0.4	-2.3	38%
Network grant	-5.1	-25.9	-5.6	-5.7	-5.8	-5.5	-5.1	-27.7	7%
Total SoFA related income	-7.2	-36.5	-8.2	-8.3	-8.3	-7.8	-7.4	-40.1	10%
Gross revenue requirement less EC4T	7.4	38.2	8.1	8.2	8.3	7.9	7.6	40.0	5%

Table C.1: Network Rail's proposed CP7 income and expenditure in Great Britain

£m (2023-24 prices)	CP6		CP7					% vs CP6	
	2023-24	CP6 total	2024-25	2025-26	2026-27	2027-28	2028-29		CP7 total
Operations	0.8	4.0	0.9	0.8	0.8	0.8	0.8	4.2	6%
Support	1.2	5.8	1.0	1.1	1.0	1.0	1.0	5.2	- 10%
Maintenance	2.0	10.4	2.3	2.2	2.2	2.2	2.2	11.2	7%
Renewals	3.9	20.9	4.0	4.2	4.1	4.1	3.6	19.9	- 4%
Industry costs, rates, & traction electricity	1.0	4.6	1.4	1.4	1.3	1.1	1.1	6.4	39%
Risk provisions	0.0	0.0	0.5	0.5	0.6	0.3	0.5	2.4	n/a
Gross Revenue requirement	8.9	45.6	10.1	10.2	10.1	9.6	9.3	49.3	8%
Other income	-0.8	-4.5	-0.9	-0.8	-0.8	-0.8	-0.8	-4.2	- 6%
Net revenue requirement	8.1	41.1	9.2	9.3	9.3	8.8	8.5	45.0	10%
Fixed Track Access Charge income	-1.4	-7.0	-1.4	-1.4	-1.4	-1.4	-1.4	-7.2	3%
Variable Charges	-0.7	-3.3	-0.7	-0.7	-0.7	-0.7	-0.7	-3.4	4%
Electricity for Traction (EC4T) income	-0.7	-2.9	-1.1	-1.0	-0.9	-0.7	-0.7	-4.5	56%
Schedule 4 and 8	0.5	2.1	0.5	0.5	0.5	0.5	0.5	2.4	14%
Schedule 4 access charge supplement	-0.3	-1.7	-0.4	-0.5	-0.5	-0.5	-0.4	-2.3	36%
Network grant	-5.5	-28.4	-6.0	-6.2	-6.3	-5.9	-5.6	-30.1	6%
Total SoFA related income	-8.1	-41.1	-9.2	-9.3	-9.3	-8.8	-8.5	-45.0	10%
Gross revenue requirement less EC4T	8.3	42.7	9.0	9.1	9.2	8.9	8.6	44.8	5%



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