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Conrad Bailey
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Department for Transport (DfT)
Great Minster House
33 Horseferry Road
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(By email)

10 October 2022

Dear Conrad

ORR's further supplementary advice to the UK Government on Network Rail's expenditure on the System Operator and National Functions for control period 7 (CP7)

Further to the letter I sent to you on 16 September, we set out below our advice relating to Network Rail's proposed expenditure on the System Operator (SO) and National Functions for CP7. This should be considered alongside our supporting report which we attach to this letter. We also provide a clarification regarding our advice on 16 September on Network Rail's forecast inflation assumptions and the implications for CP6 delivery.

This is being provided in the context of the UK Government's decisions on Network Rail's funding and outputs, which it will set out in its forthcoming High-Level Output Specification (HLOS) and Statement of Funds Available (SoFA). It builds on the previous advice we have provided to help inform the HLOS and SoFA, namely:

- our overarching advice based on Network Rail's March 2022 initial CP7 submission, which we provided on 26 May;
- our first supplementary advice on the performance implications of Network Rail's spending proposals for CP7 and on the relationship between network usage and cost, which we provided on 8 July; and
- our second supplementary advice on Network Rail's delivery in the current control period (CP6), its HS2-related work, the implications on maintenance costs under a 'reduced cost' funding scenario, and its digital signalling plans for CP7, which we provided on 16 September.

In our May advice, we said that Network Rail's March submission did not provide sufficient evidence to justify the proposed levels of spend on the SO and National Functions and, as such, we asked it to provide us with additional information to use as a basis for further advice. Network Rail has since reviewed these forecasts (with challenge from its regions) and provided us with updated cost figures and proposed allocations as part of a submission it provided to us on 15 August. This advice is principally based on that submission. We are providing this advice to Scottish Ministers at the same time.

While this letter marks the final part of our formal PR23 advice, we remain committed to continued close engagement with your team.

Network Rail's proposals regarding the SO and National Functions in CP7

In this submission, the updated forecasts of costs are based on a 'reduced cost' funding scenario, which means that Network Rail has worked to identify certain cost savings compared with its earlier 'steady state' submissions that focused on delivering broadly comparable levels of safety, performance and asset condition as in CP6. The 'reduced cost' funding scenario amounts to around £39,402 million for England & Wales (in 2023-24 prices using the November 2021 Bank of England (BoE) forecasts for Consumer Price Index (CPI) inflation).

As set out in the August submission, Network Rail now proposes to spend £11,043 million on its SO and National Functions, including other network-wide costs (such [redacted]) and the Industry Partnership Digital (which oversees digital signalling activities across Network Rail).

After adjusting for inflation, this is a 20.4% increase compared with CP6. **However, excluding proposed expenditure on IPD (discussions are still on-going as to how this will be allocated between funders), this represents a £871 million (or 9.5%) increase compared with CP6**. These figures are also in 2023-24 prices but, reflecting Network Rail's August submission, use the May 2021 BoE forecasts for CPI inflation.

Our key findings

Network Rail's proposed CP7 expenditure on SO and National Functions

In light of the fiscally constrained choices facing the regions and from a high-level consideration of cost items included in network-wide costs, we advise that there is scope for a significant reduction from the proposed increase compared with CP6. We recognise that in some areas of network-wide costs there may be a case for increased spend in CP7 as against CP6, and there are other areas where costs are lower, but we are not convinced by the currently projected aggregate increase in network-wide costs, as we explain below.

- **We expect Network Rail to look hard at its priorities within the SO and National Functions, especially in the context of constrained funding and taking account of similar trade-offs being made at a regional level. Network Rail has not yet justified that the level of spend on certain major programmes is appropriate.** For example, we continue to have concerns regarding the proposed costs associated with Network Rail's telecoms, IT and 'Intelligent Infrastructure' projects. [Redacted]. However, it has not yet justified that this is a priority in the context of constrained funding, as the requirement to carry out this work is not entirely driven by the need to renew assets in CP7. [Redacted]. We also note that Network Rail proposes increased spend on IT (CP6 +£125 million), including what it describes as "discretionary investment" and, while it is proposing reduced spend on its 'Intelligent Infrastructure' programme (CP6 -£100 million), this is c. £100 million higher than in its initial March CP7 submission. These costs will require further justification by Network Rail in an environment of constrained funding and given the delays to delivery of the Intelligent Infrastructure programme's forecast efficiencies in CP6.

- **While we support the programme in principle, we have not seen sufficient detail on the costings of the Electrical Safety Delivery programme (ESD, CP7 cost: £589 million; CP6 +£267 million) to determine whether it is efficient, appropriately scoped and deliverable in CP7 to this extent.** The ESD programme aims to deliver safer, faster isolations on both overhead line equipment and conductor rail. It is intended to minimise electrical risks to track side workers and improve the completion times for maintenance activities. We note that Network Rail is required to undertake this programme of works to become legally compliant with safety requirements and we understand that higher costs are expected in CP7 to facilitate the roll out of improvements to overhead line equipment which have been developed in CP6. On the basis of a top-down assessment, we think costs in CP7 could be in the order of 25% lower. As part of our review of Network Rail's Strategic Business Plan (SBP), we expect Network Rail to be able to justify more fully the estimated costs of this programme, including the profile of spend across CP7.

- **Network Rail's proposed costs on insurance (CP6 +£102 million) are higher than CP6.** It has said that there have been fewer, cheaper events and associated claims over CP6 (so far), which has led to lower costs overall. However, it is not clear what is driving this proposed increase, especially given the potential changes that may happen in CP7 (e.g. continued lower traffic levels). If insurance costs were the same in real terms as in CP6, this would avoid up to £102 million of the increase Network Rail is currently projecting. We will challenge Network Rail to re-examine the level of insurance costs going forward, and this is an area we will look at more closely when we review the SBP next year.

These illustrations from some of the largest areas of increased spend show there is scope for the network-wide costs to be reduced by around £500 million (i.e. £500 million lower than the CP6 +£871 million increase put forward by Network Rail). We recognise there are qualifications to this assessment, that it is top-down and Network Rail continues to test and develop the projected activity within network-wide functions. Nevertheless, our illustration shows how there is scope in a fiscally constrained environment to reprioritise or reprofile spend such that the real increase could be something like CP6 +4%, rather than CP6 +9.5%.

Turning to the allocation of costs:

- **Network Rail has adopted a more rigorous approach to allocating CP7 costs between the UK and Scottish governments and the proposed allocations for CP7 appear reasonable.** Network Rail's approach means that the vast majority of the allocated network-wide costs are allocated in line with planned CP7 activity levels and the percentage allocation of costs between governments is broadly similar with that in CP6. If network-wide costs were lower to the extent of our illustrative calculations above, there would be a smaller increase in costs allocated to England & Wales in CP7 (i.e. by around £450 million less).

- **Further discussions are required between the UK and Scottish governments on allocating the costs of digital signalling, including the costs of fleet fitment**. Our view (as set out previously) is that the Scottish Government's contribution needs to reflect the benefit passengers and freight operators in Scotland will get from the rollout of digital solutions, in line with Network Rail Scotland's Signalling Scotland's Future strategy. This suggests, for example, that there is a strong case for each region (including Network Rail Scotland) to contribute towards cab fitment costs for network-wide On Track Machines. We will continue to work with governments and Network Rail to determine the appropriate allocation of digital signalling costs.

The issues we have identified reflect, in part, the iterative approach Network Rail is undertaking in developing its CP7 plan, including the further and more detailed work it will do as part of preparing its SBP. However, reflecting the importance to funders of having a clear view of likely CP7 network-wide costs, Network Rail needs to address these issues. To do this, it is convening a workshop with both funders and ORR in which it will present its latest costs and provide a forum for discussion and challenge. This should include representatives from Network Rail's Planning & Regulation team, Network Rail Scotland and, where required, the SO and National Functions.

As we move to the evaluation stage of the SBP next year, we will be scrutinising the SO and National Functions' proposed costs further to determine what these costs should be over CP7. This is likely to be informed by benchmarking work (which looks at Network Rail's costs in these areas with comparable organisations), as well as the steps the SO and National Functions are taking to drive further efficiencies. Network Rail has previously indicated it would seek to deliver efficiencies of 10% on operational spend and 15% on capital spend over CP7 (though we note that Network Rail will need to consider further its proposed efficiency targets, especially in the context of constrained funding). It has estimated that proposed SO and National Functions' costs are made up of around 67% of operational spend and 33% of capital spend.

Clarification regarding our advice on Network Rail's CP6 delivery and its associated assumptions for forecast inflation

On page 6, paragraph 2.5.b of our 'Supporting document A: Second supplementary advice', which we provided on 16 September, the following text should be corrected, "Rising inflation is expected to cost Network Rail an additional £51 million (compared with its March submission) for the reminder of CP6. This reflects the latest BoE forecast based on the August 2022 annual CPI inflation rate of 13.1%."

This should have read (corrections italicised): "Rising inflation is expected to cost Network Rail an additional £51 million *(compared with its June submission)* for the reminder of CP6. *This reflects Network Rail's view over July/August and in advance of the August 2022 annual inflation rate of 13.1%.* The *actual annual CPI inflation at August 2021 was lower than this, at 9.9%."*

To be clear, between the assumptions used for CPI inflation in Network Rail's update in March 2022 and its re-forecast in June 2022, the increase in CPI inflation did increase Network Rail's forecast of CP6 costs by £51 million. Network Rail then informed us that this could increase costs by a <u>further</u> £51 million above the June 2022 forecast (based on an assumption of an annual rate of 13.1% in August 2022). The actual CPI inflation rate of 9.9% at August 2022 was lower than its 13.1% assumption.

Next steps

We intend to publish this letter (alongside the previous formal advice we have provided to you) at an appropriate time, likely to be after your HLOS and SoFA are published.

Yours sincerely

Will Godfrey
Director, Economics, Finance and Markets

cc. Andrew Haines, Chief Executive, Network Rail

Supplementary advice on Network Rail's System Operator and National Functions' costs

Periodic Review 2023

10 October 2022

Contents

Chapter 1: Introduction

Background

1.1 This document sets out our detailed advice to the UK Government and Scottish Ministers on Network Rail's proposed expenditure on the System Operator (SO) and National Functions' costs in control period 7 (CP7, which will run for five years from 1 April 2024). It is part of our periodic review 2023 (PR23) work to advise governments on their decisions relating to the funding Network Rail should receive for its infrastructure operations in CP7 and what, in return, it should be required to deliver.

1.2 This work should be considered alongside the separate advice we have provided on other areas of Network Rail's activities. This includes the initial advice we provided to the UK Government (in May 2022) and to Scottish Ministers (in June 2022), as well as the two sets of supplementary advice we provided on targeted areas of Network Rail's plans more recently. We are providing this advice to both the UK and Scottish Governments, reflecting that both will contribute towards network-wide costs.

1.3 This advice considers Network Rail's costs associated with:

a. The SO function, which manages capacity and timetabling for the GB network;

b. National Functions, which includes:

   (i) The Route Services function, which provides centralised services to support the regions (e.g. procurement, IT and engineering services);

   (ii) Corporate functions, including the Chief Financial Office (CFO, which includes finance, group property, legal, Planning & Regulation, and corporate commercial functions), group communications and group HR; and

   (iii) The Technical Authority function, which provides specialist engineering and asset management expertise to the organisation;

c. Other costs, namely those relating to:

(i) Other network-wide costs, which Network Rail (and this advice) refers to as 'group' costs. This includes (for example) insurance, pay-related adjustments and a provision for workforce reform costs; and

(ii) The Industry Partnership Digital (IPD) team, which has recently been established in the Eastern region to oversee digital signalling activities across Network Rail and to coordinate industry governance.

1.4 Network Rail refers to these as 'network-wide costs'. These costs relate to business units that play an important role in Network Rail's overall delivery and they are also significant in size; for example, they are expected to account for around 26% of Network Rail's overall operations, support, maintenance, and renewals (OSMR) expenditure in CP7.

1.5 Unless stated otherwise, all figures quoted in this document are in 2023-24 prices using the May 2022 Bank of England (BoE) forecasts for Consumer Price Index (CPI) inflation. This includes numbers from the March 2022 submission, which have been uplifted for the May forecast.

Our initial advice

1.6 In our initial May/June advice, we set out our concerns around Network Rail's justification for some of the SO and National Functions' costs in its March initial CP7 submission. These concerns focused on three key areas:

a. the SO and National Functions' submissions were developed under a [Redacted] funding scenario that was consistent with the England & Wales submission but not with the Network Rail Scotland's submission, which was based on a lower funding scenario [Redacted];

b. there was a lack of coherency between each region's submission, the SO's submission and the National Functions' submissions. The National Functions had made assumptions about the regions' CP7 activities that did not always align with the regions' proposals at the time. This included, for example, Route Services' plans for high-output plant (which is used for renewals of track in large projects) and the Technical Authority's assumptions regarding the regions' take-up of certain Research & Development (R&D) related initiatives; and

c. the SO and National Functions' submissions were unlikely to have been subject to sufficient assurance, reflecting that Network Rail's internal assurance was targeted at the regions' plans.

1.7 Reflecting this, we asked Network Rail to provide us with an updated iteration of its forecast SO and National Functions' costs (as well as its proposed allocations between England & Wales and Scotland). Network Rail provided this on 15 August 2022. This submission included:

a. an overview of the outputs from structured engagement between regions and network-wide functions, including the priorities for each function, particularly around renewals capital spend;

b. outputs from a review of the allocation methodology for network-wide functions; and

c. reflections from meetings to provide an updated view of network-wide function costs for CP7.

Our high-level key findings

1.8 [Redacted] Network Rail is now proposing to spend £11,043 million on its network-wide costs in CP7 (CP6 +20.4% after adjusting for inflation). Excluding proposed expenditure on Eastern IPD however, this represents a £871 million (9.5%) increase compared with CP6.

1.9 The main reasons for the £871 million increase, which are offset by decreases in other parts of the plan are:

a. Electrical Safety Delivery, CP6 +£267 million;

b. Project Reach [Redacted]

c. Workforce reform costs [Redacted] and

d. Insurance costs, CP6 +£102 million.

1.10 In light of the fiscally constrained choices facing the regions and from a high-level consideration of cost items included in network-wide costs, we advise that there is scope for a significant reduction from the proposed increase compared with CP6. We recognise that in some areas of network-wide costs there may be a case for increased spend in CP7 as against CP6, and there are other areas where costs are lower, but we are not convinced by the currently projected aggregate increase in network-wide costs, as we explain below.

a. **We expect Network Rail to look hard at its priorities within the SO and National Functions, especially in the context of constrained funding and**

taking account of similar trade-offs being made at a regional level. Network Rail has not yet justified that the level of spend on certain major programmes is appropriate. For example, we continue to have concerns regarding the proposed costs associated with Network Rail's telecoms, IT and 'Intelligent Infrastructure' projects. [Redacted] We also note that Network Rail proposes increased spend on IT (CP6 +£125 million), including what it describes as "discretionary investment" and, while it is proposing reduced spend on its 'Intelligent Infrastructure' programme (CP6 -£100 million), this is c. £100 million higher than in its initial March CP7 submission. These costs will require further justification by Network Rail in an environment of constrained funding and given the delays to delivery of the Intelligent Infrastructure programme's forecast efficiencies in CP6.

b. **While we support the programme in principle, we have not seen sufficient detail on the costings of the Electrical Safety Delivery programme (ESD, CP7 cost: £589 million; CP6 +£267 million) to determine whether it is efficient, appropriately scoped and deliverable in CP7 to this extent.** The ESD programme aims to deliver safer, faster isolations on both overhead line equipment and conductor rail. It is intended to minimise electrical risks to track side workers and improve the completion times for maintenance activities. We note that Network Rail is required to undertake this programme of works to become legally compliant with safety requirements and we understand that higher costs are expected in CP7 to facilitate the roll out of improvements to overhead line equipment which have been developed in CP6. On the basis of a top-down assessment, we think costs in CP7 could be in the order of 25% lower. As part of our review of Network Rail's Strategic Business Plan (SBP), we expect Network Rail to be able to justify more fully the estimated costs of this programme, including the profile of spend across CP7.

c. **Network Rail's proposed costs on insurance (CP6 +£102 million) are higher than CP6**. It has said that there have been fewer, cheaper events and associated claims over CP6 (so far), which has led to lower costs overall. However, it is not clear what is driving this proposed increase, especially given the potential changes that may happen in CP7 (e.g. continued lower traffic levels). If insurance costs were the same in real terms as in CP6, this would avoid up to £102 million of the increase Network Rail is currently projecting. We will challenge Network Rail to re-examine the level of insurance costs going forward, and this is an area we will look at more closely when we review the SBP next year.

These illustrations from some of the largest areas of increased spend show there is scope for the network-wide costs to be reduced by around £500 million (i.e. £500 million lower than the CP6 +£871 million increase put forward by Network Rail). We recognise there are qualifications to this assessment, that it is top-down and Network Rail continues to test and develop the projected activity within network-wide functions. Nevertheless, our illustration shows how there is scope in a fiscally constrained environment to reprioritise or reprofile spend such that the real increase could be something like CP6 +4%, rather than CP6 +9.5%.

Turning to the allocation of costs:

d. **Network Rail has adopted a more rigorous approach to allocating CP7 costs between the UK and Scottish governments and the proposed allocations for CP7 appear reasonable.** Network Rail's approach means that the vast majority of the allocated network-wide costs are allocated in line with planned CP7 activity levels and the percentage allocation of costs between governments is broadly similar with that in CP6. If network-wide costs were lower to the extent of our illustrative calculations above, there would be a smaller increase in costs allocated to England & Wales in CP7 (i.e. by around £450 million less). Equivalently, there would be a smaller increase in costs allocated to Scotland in CP7 (i.e. by around £50 million less).

e. **Further discussions are required between the UK and Scottish governments on allocating the costs of digital signalling, including the costs of fleet fitment**. Our view (as set out previously) is that the Scottish Government's contribution needs to reflect the benefit passengers and freight operators in Scotland will get from the rollout of digital solutions, in line with Network Rail Scotland's Signalling Scotland's Future strategy. This suggests, for example, that there is a strong case for each region (including Network Rail Scotland) to contribute towards cab fitment costs for network-wide On Track Machines. We will continue to work with governments and Network Rail to determine the appropriate allocation of digital signalling costs.

1.11 The issues we have identified reflect, in part, the iterative approach Network Rail is undertaking in developing its CP7 plan, including the further and more detailed work it will do as part of preparing its SBP.

1.12 However, reflecting the importance to funders of having a clear view of likely CP7 network-wide costs, Network Rail needs to address these issues. To do this, it is convening a workshop with both funders and ORR in which it will present its latest costs and provide a forum for discussion and challenge. This should include representatives from Network Rail's Planning & Regulation team, Network Rail Scotland and, where required, the SO and National Functions.

1.13 As we move to the evaluation stage of the SBP next year, we will be scrutinising the SO and National Functions' proposed costs further to determine what these costs should be over CP7. This is likely to be informed by benchmarking work (which looks at Network Rail's costs in these areas with comparable organisations), as well as the steps the SO and National Functions are taking to drive further efficiencies. Network Rail has previously indicated it would seek to deliver efficiencies of 10% on operational spend and 15% on capital spend over CP7 (though we note that Network Rail will need to consider further its proposed efficiency targets, especially in the context of constrained funding). It has estimated that proposed SO and National Functions' costs are made up of around 67% of operational spend and 33% of capital spend.

Next steps

1.14 We will need to undertake further work to determine the efficiency of Network Rail's network-wide costs, including as part of our SBP review. In its August 2022 submission, Network Rail assumed efficiency of 10% over CP7 on operational spend (opex) and 15% efficiency on renewals spend (though we note that Network Rail will need to consider further its efficiency targets, especially in the context of constrained funding). It has also since estimated that forecast network-wide costs are split between 67% opex and 33% capital expenditure (capex) spend.

1.15 We have already begun engagement with Network Rail on this, including (for example) on Network Rail's own benchmarking work that considers how the costs of its central services in areas such as IT, procurement and finance compare with similar organisations. We have asked Network Rail to do more in this area (e.g. on HR), and to present the findings to both its funders. As part of this, Network Rail should do more to demonstrate whether providing these services centrally is more efficient than them being carried out elsewhere.

Chapter 2: Network Rail's latest submission

2.1 As noted above, Network Rail provided us with an updated submission on 15 August 2022. The updated forecasts of costs are based on a 'reduced cost' funding scenario, which means that Network Rail has worked to identify certain cost savings compared with its earlier [Redacted] submission(s) that focused on delivering broadly comparable levels of safety, performance and asset condition as in CP6. The August submission is based on Network Rail's latest round of business planning undertaken over summer 2022 and referred to as 'round 5' under Network Rail's approach to developing its CP7 plan.

Limitations of Network Rail's submission

2.2 It is worth noting (as Network Rail recognises) there are certain limitations to the information provided:

a. the submission has been developed in advance of funders' decisions on CP7 funding and outputs;

b. further work is required to show that Network Rail is prioritising the appropriate activities, including across regions, the SO and National Functions;

c. the submission does not reflect a fully agreed internal position on proposed SO and National Functions' expenditure, including use of some central services such as high-output plant (which we discuss below); and

d. further work is required on assuring the proposed costs and their efficiency, including the allocation of costs to funders/regions.

2.3 Once agreed, certain network-wide costs (and associated responsibilities) discussed herein will move to sit with each of the regions (or the relevant region), which we would expect to be reflected in Network Rail's SBP). This means that the proposals set out in the August submission are likely to change compared with Network Rail's fuller, bottom-up SBP, our determination and Network Rail's Delivery Plan.

2.4 Furthermore, we consider there is scope for improvement in how Network Rail assures its information and presents it to us. This relates to (for example) the treatment of inflation and income, the cost allocation between England & Wales and

Scotland (as illustrated in the errors we have identified as part of our own review) and the variance in numbers between CP6 and CP7. However, we note that the issues we have identified with respect to Network Rail's submission partly reflect (as discussed above) the stage which it is at in developing its CP7 plan. We will work with Network Rail to help address these issues going forward.

Summary of Network Rail's August submission

2.5 Table 2.1 sets out Network Rail's latest forecast of the network-wide costs for CP7. This does not include traction electricity (costs or income), as Network Rail passes the vast majority of this cost on to train operators. It does include £521 million for British Transport Police (BTP) costs (as Network Rail expects these to be funded outside of the periodic review process). It is also worth noting that the below CP7 costs are post-efficient, taking into account the further efficiency assumptions Network Rail has challenged itself to deliver in CP7. We explain below certain aspects of these costs.

Table 2.1: Network Rail's latest forecast of network-wide costs*

2023-24 prices in £m	CP6	March initial CP7 submission	August submission ('round 5')	Variance from CP6**	Variance from initial submission
Route Services	3,996	4,831	4,886	22.3%	1.1%
Group Property	1,559	1,665	1,461	-6.3%	-12.3%
Corporate Core	1,235	1,209	1,099	-11.0%	-9.1%
Group	914	1,292	1,153	26.1%	-10.8%
Technical Authority	873	848	819	-6.2%	-3.4%
SO	593	649	623	5.1%	-4.0%
Total excl. IPD	**9,170**	**10,494**	**10,041**	**9.5%**	**-4.3%**
Eastern IPD	-	1,304	1,002	-	-23.2%
Total	**9,170**	**11,798**	**11,043**	**20.4%**	**-6.4%**

* All costs are in 2023-24 prices using the BoE May 2022 forecast for CPI inflation.
** The CP6 numbers stated are based on actual expenditure to November 2021, plus a detailed forecast of spend for the rest of CP6 produced in November 2021.

Source: Network Rail

Treatment of inflation

2.6 Compared with the March initial CP7 submission, which was in 2023-24 prices based on the BoE's CPI inflation forecasts produced in November 2021, Network Rail's August 2022 submission has allowed for an additional £899 million to reflect the BoE increase in forecast CPI inflation between November 2021 and May 2022. However, to enable a like-for-like comparison, Table 2.1 restates the figures from the March submission using the May 2022 CPI forecast.

2.7 Furthermore, and for its August submission (only), Network Rail has applied different inflation rate assumptions using updated input price information for opex and for capex (i.e. renewals). This is to reflect the wider fiscal environment for these categories of spend, as well as Network Rail's views about how its costs are likely to be impacted by input price inflation. The differing proportions of opex and capex spend in each function has meant varying levels of inflation-related increases in functional costs compared with the March initial CP7 submission.

Treatment of income

2.8 Table 2.1 does not include Network Rail's income forecast, which would offset some of the costs incurred by the network-wide functions. Including income in the above table could obscure the costs incurred by the SO and National Functions. However, for clarity, Network Rail has advised that forecast income in CP7 for the National Functions is as follows:

a. The SO: £687 million (CP6: £607 million) for Schedule 4 and access charges;

b. Group Property: £154 million (CP6: £838 million) for property sales income; and

c. 'Group' costs: net -£183 million (CP6: £43 million cost) for Schedule 4/8 charges to regions.

Inclusion of business rates

2.9 Table 2.1 includes the property rates for each of Network Rail's regions, which are managed by the Group Property function. In CP7, these are expected to total £1,774 million (CP6: £1,524 million), of which £1,589 million is for England & Wales (CP6: £1,376 million) and £185 million is for Scotland (CP6: £148 million).

2.10 Business rates are managed centrally, and the costs are then allocated to the regions. Business rates were not included in the network-wide costs discussed in the CP7 initial submissions received by funders in March (nor are they part of the allocation process described later in this paper). Business rates are determined by the governments of the respective countries in which the properties are located.

Allocation of costs to the UK and Scottish Governments

2.11 In its initial submissions in March 2022, Network Rail allocated network-wide costs between England & Wales and Scotland based on a high-level assumption of 90% and 10% respectively. Since then, Network Rail has provided a more accurate breakdown using the existing CP6 methodology at an activity level, with allocation rates (e.g. headcount, train miles) at CP7 forecast levels, where possible. We discuss our views on Network Rail's approach to allocating costs in Chapter 4.

2.12 The network-wide cost allocation undertaken by Network Rail does not include Eastern IPD costs (which sit directly in the Eastern region) or property rates (which are charged directly to the regions in which they are incurred). It does, however, include income received by the SO and National Functions. The reconciliation between total network-wide costs (in Table 2.1) and those allocated by Network Rail to its regions (as discussed in Chapter 4) is shown in Table 2.2.

2.13 Separately, as Network Rail acknowledges, we have identified certain errors with the proposed allocations provided by Network Rail as part of its August submission (which amount to £232 million). These were predominantly due to changes Network Rail had made to its SO and National Functions' plans which had not been reflected in its allocation of network-wide costs. We have corrected for these errors in Table 2.2 and in the figures we discuss in Chapter 4 (which consequently now differ from those in Network Rail's August submission). We expect Network Rail to provide funders with an update to its submission to correct for these errors.

Table 2.2: Reconciliation between the network-wide costs included in Table 2.1 and the net costs allocated using Network Rail's anticipated CP7 methodology

2023-24 prices in £m	August CP7 submission ('round 5')
Total CP7 network-wide costs per Table 2.1	**11,043**
Eastern IPD	(1,002)
Rates (included in Group Property costs)	(1,774)
Income (for System Operator, Group Property and Group)	(657)
Net CP7 network-wide costs allocated using CP7 methodology (as per Tables 4.1 and 4.2)	**7,610**

Source: ORR analysis of Network Rail data

Chapter 3: Our analysis of Network Rail's proposed SO and National Functions' costs

Comparison with the March 2022 initial CP7 submission

3.1 In its August submission, Network Rail is proposing to spend £11,043 million on network-wide costs. This represents a 6.4% (or £755 million) decrease compared with its March initial CP7 submission (after adjusting for inflation).

3.2 Overall, we consider that Network Rail's proposed SO and National Functions' costs are more appropriate than in its March initial CP7 submission. This reflects that costs have been developed using a 'bottom-up' approach (based on a more detailed understanding of Network Rail's asset requirements). They have also benefitted from more engagement with the regions, which has resulted in a more aligned plan compared with the March initial CP7 submission (e.g. double counting of the Electrical Safety Delivery (ESD) programme, which previously sat in both Route Services and the Scotland and Wales & Western regions, has now been corrected). This has led to a cost reduction (excluding inflation) for the SO and National Functions as a whole (as shown in Table 2.1 above).

3.3 However, as Network Rail acknowledges, further work is required, which will need to be reflected in future iterations of the SO and National Functions' plans:

a. the submission does not reflect a fully aligned view on the use of high-output plant between the Route Services function (which manages the high-output plant) and the regions. However, Route Services has since agreed a position on indicative volumes with Network Rail's executive and the implications of this are being considered with the regions;

b. there is a lack of alignment regarding infrastructure monitoring and decarbonisation plans (which, again, are managed by Route Services). As such, there are outstanding differences in the assumptions being made between Route Services and the regions; and

c. more generally, the SO and other National Functions have different assumptions regarding the benefits and efficiencies associated with their respective programmes and how they are reflected in the regions' plans.

Comparison with CP6 costs

3.4 Based on its August submission, Network Rail's forecast spend on network-wide costs represents a 20.4% increase compared with CP6. Noting the limitations of drawing direct comparisons between CP6 and CP7 [Redacted].

Route Services

3.5 As noted above, Route Services provides centralised services to support the regions. As set out in Table 2.1, Network Rail's August submission is now proposing to spend £4,886 million, which represents a 22.3% increase in proposed costs compared with CP6. This is driven by a ramp-up in CP7 of national programmes that began in CP6, though is partly offset by a reduction in the scope of other programmes:

a. The Electrical Safety Delivery programme (ESD, CP7 cost: £589 million; CP6 +£267 million), aims to deliver safer, faster isolations on both overhead line equipment and conductor rail. It is intended to minimise electrical risks to track side workers and improve the completion times for maintenance activities. Network Rail is required to undertake this programme of works to become legally compliant with safety requirements and we understand that higher costs are expected in CP7 to facilitate the roll out of improvements to overhead line equipment which have been developed in CP6. However, we have not seen sufficient detail on the programme's costings to determine whether it is efficient, appropriately scoped and deliverable in CP7 to this extent. As part of our review of the SBP, we expect Network Rail to be able to justify fully the estimated costs of this programme.

b. Project Reach [redacted] which is a commercial opportunity to improve the value for money of Network Rail's future telecoms needs. This now sits with the Route Services function (as opposed to sitting under 'group' costs, which it did at the time of the March initial CP7 submission). [Redacted].

c. Route Services is planning to spend slightly less (c. £12 million) on new IT assets in CP7 but has identified £137 million of increased operational costs, including what it describes as "discretionary investment" (net effect on IT costs: CP6 +£125 million). Network Rail has said this is required to support increased demand for digital services, for example, the roll out of Intelligent Infrastructure applications (see below) that were developed in CP6. It is also expecting increases in support, maintenance and licensing costs. These costs will require further justification by Network Rail in an environment of constrained funding.

d. The Intelligent Infrastructure programme (CP7 cost: £232 million, CP6 -£100 million), which is a programme designed to support regions' decision making for maintenance activities by improving the use of data relating to assets' performance. Network Rail has reduced the proposed costs for this programme in CP7 to reflect prioritisation decisions made in the context of the constrained funding scenario. While this is likely to be appropriate, we note that progress in delivering this programme has been relatively slow in CP6 to date and that Network Rail will need to demonstrate how it can deliver on the benefits of this programme with reduced funding. This is especially the case given Network Rail was initially seeking £124 million for this programme as part of its March 2022 submission. Furthermore, Network Rail will need to demonstrate regional support for the programme, as well as how the proposed benefits can be realised and that the expenditure does not duplicate proposed items within regional submissions.

e. On track machine cab fitment costs, which are designed to support the rollout of digital signalling [Redacted]. We discuss this below.

f. Changes to other programmes across operations and capital spend, in total costing £255 million more than in CP6. The largest of these include increases to infrastructure monitoring spend (CP7 cost: £445 million, CP6 +£85 million across opex and capex) and decarbonisation programmes (CP7 cost: £54 million, CP6 +£27 million). The decarbonisation programmes encompass initiatives such as the transition of both traction and non-traction power supply to renewable supply and the consolidation of a programme of works around the provision of electric vehicle infrastructure to support Network Rail's road fleet and public parking spaces.

3.6 Notwithstanding the merits of these programmes (as discussed above), Network Rail will need to undertake further work to set out in more detail what the programmes will efficiently deliver and whether these are priorities (or need to be as large as proposed) for CP7. We expect Network Rail to demonstrate that the programmes are commensurate with the proposed costs, especially in the context of constrained funding and it will also need to demonstrate that the regions are supportive of the programmes and that these have been reflected in regional plans.

The SO and Technical Authority

3.7 As noted above, the SO manages capacity and timetabling for the GB network. In its August submission, Network Rail is proposing expenditure of £623 million (CP6 +5.1%) on the SO. The increase is mainly driven by additional costs towards the SO's '21st Century Operations' programme, which aims to improve the SO's operational capability through developing and delivering tools, technology and organisational change. However, this will need to be considered in the context of Network Rail's wider strategy (which it has been deploying over CP6) of increasing devolution of (SO) responsibilities to the regions. Network Rail has advised that the SO is continuing to look at opportunities to further reduce the costs in its plan, alongside the associated impacts. We will monitor progress with this approach, particularly in terms of the justification and prioritisation of the costs associated with the '21st Century Operations' programme.

3.8 The Technical Authority provides independent specialist engineering and asset management expertise to the organisation. In its August submission, Network Rail is proposing expenditure of £819 million (CP6 -£54 million). This decrease reflects headcount reductions in the function made over the course of CP6 and a review of its programmes to align with the 'reduced cost' planning scenario. The Technical Authority's plan includes spend on Research, Development and Innovation (RD&I), capability and competence development, as well as weather resilience.

Corporate core functions

3.9 As noted above, other corporate core functions include Network Rail's CFO, HR and Communications teams. As set out in Table 2.1, Network Rail is now proposing to spend £1,099 million on these, which represents an 11.0% decrease in proposed costs compared with CP6. This largely reflects reductions made to headcount in these functions over the course of CP6, driven by the company-wide workforce modernisation programme Network Rail has been progressing in CP6. We discuss in more detail Network Rail's delivery of its workforce reform programme in CP6 in our separate supplementary advice provided earlier this month (as well as below in the context of CP7 network-wide costs associated with this programme).

3.10 Furthermore, and within the corporate functions of Network Rail but reported on separately in this paper, is the Group Property unit. Network Rail is now proposing expenditure of £1,461 million (CP6 -6.3%). This largely reflects Network Rail's revised view of governments' decisions on future business rates. Network Rail has advised us it will undertake further analysis in this area.

Group costs (i.e. other network-wide costs)

3.11 As noted above, and as part of its August 2022 submission, Network Rail has included a number of other network-wide costs referred to as 'group costs'. These total £1,153 million (CP6 +£239 million, or 26.1%). This largely reflects cost increases in two areas:

a. **Workforce reform costs**: [Redacted]: While Network Rail is working towards delivering its workforce modernisation programme over CP6, it has included a provision for some workforce reform related costs in CP7. This reflects the risk that it is unable to deliver fully on this programme by the start of CP7. Our view is that this is prudent, given the current difficulties Network Rail is facing in this area [redacted]. Furthermore, and while the current CP7 provision appears reasonable, it is very difficult to anticipate what level of funding could be required for this in CP7, given the wider risks associated with the programme in CP6. We are monitoring this programme closely and will provide a further update on its workforce modernisation plans at our next review of Network Rail's updated CP6 plans.

b. **Insurance costs** (CP6 +£102 million): Network Rail expects insurance costs to be higher in CP7 than in CP6. It has said this is because in CP6 (so far) there have been opex savings (i.e. fewer, cheaper claims against construction and passenger injury policies and fewer weather events than originally forecast) and the impacts of insurable events have overall been smaller (due to lower passenger numbers and fewer timetabled services). Network Rail holds self-insurance for many of these events as they are cheaper to self-insure than to insure commercially. The regions pay a premium for this cover and will receive a refund if overall costs are lower. However, if the cost of Network Rail's insurable events is lower than the expected cost, each region will share in a refund, even if the actual costs for incidents that occurred in that region were higher than expected. It is not fully clear what is driving the proposed increase in insurance costs, especially given the potential changes that may happen in CP7 (e.g. continued lower traffic level). We will challenge Network Rail to re-examine the level of insurance costs going forward, including in the context of anticipated CP7 traffic levels, and this is an area we will look at more closely when we review the SBP next year.

c. **Other movements** (CP6 -£18 million): This largely reflects several relatively smaller amendments to the other remaining programmes across the National Functions which continue from CP6 into CP7.

Digital signalling

3.12 Network Rail's initial CP7 submission in March 2022 included around £2.2 billion (at a GB-wide level) to support the deployment of digital signalling in CP7. Since then, it has provided us with updated project cost forecasts. We have been advising the UK and Scottish Governments on Network Rail's digital signalling plans, most recently in the supplementary advice on digital signalling that we provided to governments in September 2022.

3.13 In Network Rail's August submission, around £1.2 billion of Network Rail's proposed £2.2 billion costs is included in network-wide costs. This is split across Eastern IPD, Route Services and Technical Authority. It includes funding for:

a. Fleet fitment expenditure (£968 million), split across Eastern IPD and Route services. This includes a c.£200 million reduction in passenger fleet fitment costs as part of Network Rail's 'reduced cost' scenario planning.

b. Enabling costs (£124 million), split across Eastern IPD and Technical Authority.

c. R&D costs (£25 million), including funding for Network Rail's Target 190 plus (or T190+) programme that aims to reduce Network Rail's signalling unit rates. This currently sits within the Technical Authority 'other renewals' plans (and therefore is included in the above numbers). There is also the wider organisational R&D budget which is managed by the Technical Authority.

d. Other costs (£67 million), including those relating to the Long-Term Deployment Plan (LTDP) portfolio management and traffic management services, required to support Eastern IDP.

3.14 In addition, Network Rail has included expenditure for Optimised Train Track Operation (OTTO) and Radio Based Limited Supervision (RBLS) in the Technical Authority's 'other renewals' budget. The total cost of these programmes in the Technical Authority's 'other renewals' budget (i.e. separately from Network Rail's overall research and development programme) is £178 million.

3.15 Note that the above figures are slightly different from those included in our September advice on digital signalling as these reflect a different point in Network Rail's planning rounds and are presented under different inflation assumptions. Furthermore, while these figures quoted above are in 2023-24 prices, they are made up of some costs that use the November 2021 BoE forecasts for inflation and some that use the May 2022 forecasts. This means that they are not based on consistent inflation assumptions when compared with the other network-wide costs.

3.16 We set out our views on Network Rail's CP7 digital signalling proposals in detail in our September supplementary advice (which we refer to above) and our views on the allocation of these costs between England & Wales and Scotland below.

Chapter 4: Our assessment of Network Rail’s proposed allocation of costs

Introduction

4.1 Chapter 3 discusses Network Rail’s overall forecasts of costs for its network-wide functions in CP7, based on the August 2022 submission. As in CP6, Network Rail will allocate these costs between its England & Wales regions and Network Rail Scotland. This is done, in principle, in line with the expected benefits or usage each region will receive for the associated spend.

4.2 Some of these costs are charged directly to regions, where there is a direct line of sight from the cost incurred on behalf of a particular region. For example, the costs associated with the Eastern’s IPD-related work are held directly by the Eastern region and business rates are allocated directly to regions based on property locations, so both are excluded from Network Rail’s analysis of cost allocations, which is discussed in this chapter.

4.3 In addition to costs, Network Rail has considered the allocation of income in its submission, as managed by its central functions. This includes:

a. Schedule 4 and access charge income (£687 million, held within the SO);

b. property sales income (£154 million, which is part of the Group Property function); and

c. the net impact of insurance recharges, which for CP7 is forecast to be a net cost of £183 million.

These are included in the allocations discussed in this chapter, as set out in Table 2.2.

The allocation methodology

4.4 Network Rail’s approach for the allocation of network-wide costs in CP6 breaks down each function’s costs into separate components and allocates these to Network Rail’s regions using different methodologies, chosen to reflect the underlying cost drivers. Examples of the high-level cost drivers include headcount and train miles, although some costs are allocated based on specific analysis of the underlying costs (e.g. property costs are allocated based on forecasts for specific property locations).

4.5 Network Rail updates the underlying information supporting the drivers at each update to its CP6 plan (referred to as ‘re-forecasts’), for example where there is movement in the regional headcount, but changes to the allocation methodology for a particular cost tend to be infrequent.

4.6 As part of PR18, we reviewed Network Rail’s cost allocations to routes in its business plans for CP6, particularly the allocations to the Scotland route as these impacted the separate funding settlements for CP6. We also commissioned a report from Cambridge Economic Policy Associated (CEPA) to advise us on Network Rail’s approach to cost allocations in CP6. From the work we undertook in PR18, and the outputs from CEPA’s report, we concluded that Network Rail had taken a reasonable approach to the allocation of network-wide costs in CP6, although we recommended that Network Rail could improve the transparency around its approach to the allocation.

4.7 During CP6, Network Rail has improved the transparency of its network-wide cost allocations, particularly in Scotland. For example, Network Rail provides a detailed breakdown each period of centrally incurred costs as part of its financial reporting to Transport Scotland. Network Rail also presents at least once a year to Transport Scotland on the methodology used in allocating network-wide costs, most recently in May and September 2022.

4.8 In its March initial CP7 submission, and in line with the top-down approach to developing its plans, Network Rail applied a high-level allocation of the costs associated with the SO and each National Function (90% to England & Wales regions, 10% to Scotland). However, for the purpose of its August submission and as part of its round 5 submission, Network Rail has updated its approach and used an allocation consistent with the methodology for CP6, using CP7 activity levels, where available. Network Rail has reported that under this approach 94% of controllable opex and renewals costs are allocated according to planned activity levels, with 33% of non-controllable opex costs (i.e. property rates and industry costs) allocated using planned CP7 activity levels. This means approximately £7.5 billion (89%) of its £7.6 billion of allocated network-wide costs are allocated using CP7 activity levels. This approach should give a clearer view of anticipated allocations of network-wide costs in CP7 and is reasonable given how far Network Rail has developed its plans at round 5. (Note that Network Rail's forecast income is allocated in line with the CP6 methodology, as its plans in this area are not sufficiently developed to use CP7 rates).

Key movements in allocations

4.9 The overall allocation of costs between the two funding settlements remains broadly consistent between CP6 and CP7 (i.e. 90% to England & Wales and 10% to Scotland). There is a larger swing in the allocation of income from CP6 (94% to England & Wales regions, 6% to Scotland) to CP7 (87% and 13% respectively), in part due to changes in the underlying costs and in part due to more income being fully devolved to regions in CP7.

4.10 The overall network-wide costs allocated to the England & Wales regions are £1,559 million higher in the latest submission in comparison with CP6 and changes to the underlying costs have given a 2-percentage point rise in the overall allocation (from 89% to 91%; see Table 4.1).

4.11 Table 4.1 shows the movement in the allocation of costs for each main cost category between CP6 and CP7. The allocation includes all income and most costs included in Table 2.1 above, except for Eastern IPD which sits within the Eastern region and business rates which are attributed to regions directly and not allocated using this methodology. The GB totals (i.e. Tables 4.1 and 4.2 combined) are reconciled to Table 2.1 in Table 2.2, above.

Table 4.1 Summary of network-wide cost allocations to England & Wales (2023-24 prices)

	CP6		CP7 Round 5		Variance to CP6	
	£m	%	£m	%	£m	% Higher/ lower
Income	-1,400	94%	-569	87%	831	▼
Controllable opex	3,748	90%	3,767	89%	19	▼
Renewals	2,613	91%	3,045	92%	432	▲
Total excl. industry costs	**4,961**	**90%**	**6,243**	**91%**	**1,282**	▲
Industry costs	381	85%	658	90%	277	▲
Total	**5,342**	**89%**	**6,901**	**91%**	**1,559**	▲

Source: ORR analysis of Network Rail data

4.12 As can be seen in Table 4.2 below, the quantum of costs allocated to the Scotland region in the latest CP7 plan are also higher than CP6, but the allocation percentage has reduced from 11% in CP6 to 9% in CP7 mainly due to changes in the underlying costs.

Table 4.2: Summary of network-wide cost allocations to Scotland (2023-24 prices)

	CP6		CP7 Round 5		Variance to CP6	
	£m	%	£m	%	£m	% Higher/ lower
Income	-89	6%	-88	13%	1	▲
Controllable opex	404	10%	454	11%	50	▲
Renewals	249	9%	273	8%	24	▼
Total excl. industry costs	**564**	**10%**	**639**	**9%**	**75**	▼
Industry costs	69	15%	70	10%	1	▼
Total	**633**	**11%**	**709**	**9%**	**76**	▼

Source: ORR analysis of Network Rail data

4.13 The primary drivers of the movement in allocation percentages are in income (+/- 7%) and traction electricity, industry costs and rates (which, collectively, we refer to as TEICR) (+/- 5%). There are more minor movements included within controllable opex and renewals which are drawn out below, although the overall allocation percentages have not changed significantly.

a. **Income**: There has been an increase in the allocation rate for properties in Scotland, in line with proportionately lower station footfall in CP6 (compared with England & Wales regions), with which lease agreements are linked. Also, in CP6 proportionately higher income was allocated to England & Wales due to the inclusion of the Core Valley Lines sale income in the GB total (£470 million which is funded through the England & Wales settlement). Overall these mean that the allocation of CP7 income is proportionately higher to Scotland in comparison to CP6.

b. **Controllable opex – Group**: The overall total of Group costs has increased in CP7, as explained in Chapter 3 above. The allocation percentage to England &

Wales has proportionately reduced due to costs in CP6 attributed to England & Wales not included in CP7 (e.g. costs relating to the Great British Rail Transition Team (GBRTT, £175 million, which are funded separately by DfT and make up 1.3 percentage points of the allocation to England & Wales). [Redacted]. The higher CP7 total includes more items allocated between England & Wales and Scotland, rather than just to England & Wales, increasing the proportionate allocation to Scotland in CP7. The combination of the above changes is driving the change in percentage allocation.

c. **TEICR**: The movement in the allocation percentage is misleading as the CP6 baseline is not comparable to CP7. The baselines for England & Wales include BTP costs for only part of CP6 but all of CP7, making the allocation to Scotland appear reduced in CP7. The quantum of costs in CP6 and CP7 is comparable.

d. **Renewals – Property**: Allocation rates for Scotland are lower in CP7 as there is assumed to be no attributable joint venture spend, whereas c. 3% of joint venture spend was allocated to Scotland in CP6.

e. **Renewals – Group:** [Redacted] In addition, in CP6 there were several costs which were allocated exclusively to England & Wales regions, so the proportionate allocation to Scotland in CP7 has increased, and the allocation to England & Wales has reduced.

Areas for further consideration

4.14 Network Rail has been transparent in explaining its allocation methodology and has explained where it considers there are areas for development. As highlighted above, the allocation methodology reflected in the August 2022 submission is still based primarily on its CP6 approach. We expect this to be fully updated by the time Network Rail submits its SBP, with the following areas also resolved.

Project Reach

4.15 As noted above, Project Reach is an initiative to work with a commercial partner to renew Network Rail's telecommunications infrastructure. None of the development costs in CP6 for Project Reach have yet been allocated to Scotland, though Network Rail is reviewing the allocation now that the project is more fully developed. It expects to determine a bespoke allocation methodology based on the programme activity [redacted]. This is designed to ensure that costs are allocated appropriately between England & Wales and Scotland. In its August submission, the CP7 costs for Project Reach have been allocated between England & Wales and Scotland based [redacted], but the more bespoke allocation is expected to be incorporated in later planning rounds.

4.16 We support Network Rail taking a more detailed approach to the allocation of Project Reach's costs and consider this is consistent with the recommendation of the PR18 CEPA report to consider alternative cost allocation principles where these may have a material impact. We expect this allocation methodology to be finalised for the purposes of the SBP, once it is clear which geographical areas will be included in phase 1 of Project Reach.

Digital Signalling

4.17 The allocation of costs associated with the implementation of the European Train Control System (ETCS, which refers to the wider signalling and control system for digital signalling) is of particular importance given the differences in approach taken by the UK and Scottish Governments on the rollout of digital signalling solutions on the rail networks in England & Wales and Scotland, respectively. While ETCS is being implemented in England and in Wales, generally following the approach set out in the LTDP and with enhancements programmes such as ECDP on the East Coast Mainline, the approach in Scotland is still under development as part of the Signalling Scotland's Future (SSF) strategy.

4.18 We consider that there is a strong justification to include the costs of digital signalling within the scope of PR23. We explained the rationale for this in the second supplementary advice we provided in September on Network Rail's CP7 digital signalling plans.

4.19 Our underlying views on the allocation of costs related to digital signalling remain consistent with the view we held at PR18. We consider that the deployment of digital signalling would deliver future benefits for passengers in England, Wales and Scotland that align with UK and Scottish Government key strategic outcomes. Therefore, the costs to develop this programme should be shared on an appropriate basis between both funders.

4.20 While the strategy in England & Wales is largely aligned to the deployment set out in the LTDP, Network Rail Scotland continues to develop its strategy through the SSF initiative. Network Rail Scotland has made progress in CP6, though further work is required to develop route business cases for the potential roll out of digital signalling solutions in Scotland. Our expectation is that Scotland should bear some of the initial costs of digital signalling, reflecting that it will benefit in the long-term from digital signalling. For example, it will help to optimise capacity and capability on the railway network in Scotland, as well as delivering value for money.

4.21 In its March initial CP7 submission, Network Rail had allocated to England & Wales £1,197 million of the £1,314 million total costs associated with the network-wide enabling works, fleet fitment costs for passenger, freight, heritage and charter fleets and On Track Machines, and R&D for digital signalling. This excludes infrastructure costs which sit within the England & Wales regional plans. The equivalent allocation to Scotland was £117 million (on a high-level allocation).

4.22 As noted above, however, Network Rail's plans have moved on since then, and it has updated its 'round 5' plan to reflect a £200 million reduction in CP7 passenger fleet fitment costs and changes to inflation assumptions. This reduces the total of these costs to £1,184 million. If all of these costs were allocated between England & Wales and Scotland using train and freight miles as cost drivers, the total cost to England & Wales would be £1,081 million and to Scotland it would be £103 million. The proportion that would be paid by Scotland is only slightly lower than Network Rail's March initial CP7 submission as savings from the removal of £200 million of passenger fitment costs has been offset by increases in costs due to inflation. This approach seems reasonable, as the benefits coming from the deployment of digital signalling are likely to be consistent with the usage trains obtain from the signalling deployed.

4.23 In its August submission, Network Rail set out four potential options for how this expenditure could be allocated:

a. Scotland does not contribute towards the national ETCS funding requirement in PR23.

b. Funding allocation is reviewed following publication of Scotland's signalling asset strategy and appropriate cost allocation made, should a future move to ETCS be proposed.

c. Scotland does not contribute to the national ETCS funding requirement in PR23, but future periodic reviews will evaluate Scotland's signalling strategy and, should a change in focus from conventional signalling to ETCS be proposed then, a retrospective allocation towards England & Wales-funded ETCS technical development and fleet fitment costs should be determined.

d. Allocation is done in a way that is more consistent with other national functions costs (i.e. that Scotland shares in these costs, recognising that it is part of a single company) and that would mean that a share of digital signalling costs are allocated to Scotland's Railway.

4.24 Discussions between Network Rail and funders on the allocation of digital signalling costs are ongoing, and we will continue to engage with them as part of this.

Research, Development and Innovation (RD&I)

4.25 As part of the August 2022 submission, the costs for Network Rail's RD&I programme are included in the Technical Authority's costs and are then allocated between England & Wales and Scotland based on train miles. Network Rail has told us it is currently reviewing this allocation methodology to consider whether it continues to be the most appropriate approach to use in CP7. The Technical Authority will also be working with the regions to ensure the benefits of its CP6 RD&I portfolio are being fully reflected in regional CP7 plans.

4.26 These costs are separate from the specific digital signalling R&D costs which are discussed in Chapter 3.

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