2018 periodic review

Consultation on the draft determination – summary of comments and our response

October 2018

Contents

About this document

The 2018 periodic review (PR18) is the process through which we determine what Network Rail[1] should deliver in respect of its role in operating, maintaining and renewing its network in control period 6 (CP6)[2] and how the funding available should best be used to support this. This feeds through into:

- the service that passengers and freight customers receive and, together with taxpayers, ultimately pay for; and
- the charges that Network Rail's customers, including passenger, freight and charter train operators, will pay for access to its track and stations during CP6.

In June 2018, we consulted on our PR18 draft determination[3], setting out our proposed decisions in all of the main areas of PR18. Following receipt of consultation responses, we have reviewed stakeholders' comments and these have helped to inform the final decisions set out in our final determination. We are grateful to all those who responded to the consultation.

Accordingly, the final determination sets out our overall decisions on PR18. Among the documents that we have published is an overview document, setting out:

- our decisions in all the main areas of PR18;
- a summary of how we will regulate Network Rail's delivery in CP6; and
- next steps in PR18.

In addition, there are high-level summaries of our main decisions for each of England & Wales and Scotland.

We have also published a document summarising stakeholders' comments on the PR18 draft determination and our response to these.

The full set of documents that form the final determination is set out in the box overleaf[4].

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[1] All references to Network Rail in this document are to Network Rail Infrastructure Limited.

[2] CP6 will run from 1 April 2019 to 31 March 2024.

[3] The full suite of PR18 draft determination documents are available from this webpage. To access earlier consultation and conclusions documents that led up to the PR18 draft determination, please see the map of these documents here.

[4] Our policy on managing change will be published in November 2018. Some documents, such as the consultancy and reporter studies, will be published shortly after the final determination.

Our final determination documents (includes weblinks)

PR18 final determination overview document

England & Wales summary

Scotland summary (and settlement details)

Settlement documents

- FNPO route
- System Operator
- England & Wales
  - Anglia route
  - LNE & EM route
  - LNW route
  - South East route
  - Wales route
  - Wessex route
  - Western route

PR18 draft determination consultation – summary of comments and our response

Supplementary documents

- SBP assessment
  - Scorecards and requirements
  - Health & safety
  - Review of NR's proposed costs
  - Other single till income
  - Stakeholder engagement
- Policy
  - Financial framework
  - Review of network licence: conclusions from consultation
  - Overview of charges & incentives decisions
  - Infrastructure cost charges conclusions
  - Variable usage charge conclusions

Other documents

- Glossary
- Consultancy & reporter studies
- Managing Change Policy
- Grading of Network Rail's route and System Operator strategic plans for CP6

1. Introduction

Purpose

1.1 This document discusses the main points raised by stakeholders in response to our draft determination on the 2018 periodic review (PR18).

Background

1.2 In June 2018, we consulted on our draft determination on PR18. We received responses from 52 stakeholders[5] (names of the respondents are listed in the Appendix, along with any abbreviated names that we have used in this document). These responses are available on our website. We would like to thank all those who responded.

1.3 As part of our consultation process we also held a senior level meeting with each of the routes in early September 2018. These meetings, attended by ORR's chair and chief executive, as well as the route managing director, allowed us to explore issues of particular concern to the routes following Network Rail's formal response (which included individual route responses). The meetings also allowed us to discuss specific issues with the routes following our review of other consultation responses. These discussions were helpful in informing our final decisions on the route settlements.

Structure of this document

1.4 Each chapter of this document corresponds to a key area of PR18, discussing stakeholder views and our response. These are as set out in Table 1.1.

1.5 Please note that stakeholder comments regarding our proposals to change Network Rail's network licence are discussed in the response to the consultation on the draft network licence (available here). Responses to our invitation to comment on our draft 'Enhancements in control period 6: Roles and responsibilities' (available here) will be covered in a separate publication that we will publish ahead of CP6.

[5] Some stakeholders submitted separate responses to the draft determination and network licence consultations. Names of the respondents are listed in the Appendix, along with any abbreviated names that we have used in this document.

Table 1.1: Remaining chapters in this document

Chapter	Area of stakeholder comment	Relevant draft determination documents	
		Draft determination overview reference	Supplementary document
2	Our approach to regulating Network Rail in CP6, including how we will manage changes to the settlements in the determination[6]	Chapter 3	N/A
3	Our review of Network Rail's stakeholder engagement	Chapter 4	Stakeholder engagement
4	Our review of Network Rail's scorecards and the requirements we are setting the company for CP6	Chapter 5	Scorecards and requirements
5	Our review of health and safety in Network Rail's strategic business plans	Chapter 6	Health & safety
6	Our review of Network Rail's proposed forecast costs for CP6	Chapter 7	Review of Network Rail's proposed costs
7	Our review of Network Rail's proposed forecast income for CP6	Chapter 7	Other single till income
8	Our proposed decisions on the financial framework for CP6	Chapter 8	Financial framework
9	Our proposed decisions on charges and incentives, including in respect of our consultations on capping the variable usage charges and on infrastructure cost charges	Chapter 9	Overview of charges and incentives decisions Variable usage charge consultation Infrastructure cost charge consultation
10	Our proposed decisions on the settlement for the Freight & National Passenger Operator route (FNPO)	Chapters 5 and 7	FNPO draft settlement document
11	Our proposed decisions for Scotland (where issues are not covered in topic-specific chapters)	Most chapters	[various]
12	Our proposed decisions on the settlement for the System Operator (SO)	Chapters 5 and 7	

[6] Comments relating to our proposals regarding the network licence are set out in the supplementary document: Review of Network Rail's network licence.

Chapter	Area of stakeholder comment	Relevant draft determination documents	
		Draft determination overview reference	Supplementary document
13	Other issues		

1.6 Each chapter provides a brief high-level overview of what we said in our draft determination before summarising and discussing the main points raised in responses. For further detail on what we proposed, please see the relevant draft determination documents.

2. Our approach to regulating Network Rail in CP6

Overview

This chapter provides a summary of the points raised by stakeholders on our approach to monitoring and reporting Network Rail's delivery to its customers, and in holding it to account, in CP6. Our proposed approach was discussed in Chapter 3 of our draft determination. This chapter discussed stakeholders' views on the following specific points:

- general PR18 approach;
- monitoring and reporting in CP6;
- stakeholder engagement;
- regulation of central functions;
- holding Network Rail accountable; and
- managing change to the CP6 settlements.

General PR18 approach

Accountability within Network Rail

2.1 Several respondents expressed support for our approach to regulation in CP6:

- DfT approved of the proposals to make use of more targeted enforcement action on individual routes or functions;
- Kent County Council expressed support for the overall policy in PR18, and in particular for the reinforcement of the relationship between Network Rail and its customers; and
- Network Rail welcomed our confirmation that its route and SO scorecards will form a key part of regulation in CP6.

2.2 However, Abellio UK (Abellio) and the trade union Transport Salaried Staffs' Association (the TSSA) expressed concerns about devolution of responsibilities and accountabilities to Network Rail routes/the SO. In particular, that there is a risk that it will lead to unclear accountability for different activities within Network Rail and, in turn, make it difficult to hold the different business units to account.

2.3 TSSA and the Institution of Occupational Safety and Health (IOSH) also raised concerns that devolution could undermine the safe operation of the network. In particular, that there is a risk of inconsistency of safety standards across the different business units within Network Rail and potential for increased difficulty in holding routes accountable for safety. IOSH also stated that it was unclear how the routes'/SO's understanding of risk control would ensure safety for the whole network.

2.4 Similarly, questions were raised about the concept of a 'lead route,' whereby TOCs and FOCs that operate across routes are assigned a main route, and consequently become 'minority operators' on the other routes they use. Respondents said that there are several operators that run across more than one geographical route and it is not clear how having a lead route will help with ensuring appropriate engagement between the routes and the minority operators, and with ensuring that routes take minority operators into proper consideration.

Our response

2.5 We recognise stakeholders' concerns regarding devolution of responsibilities and accountabilities, and the importance of clarity regarding different business units' roles and responsibilities under devolution.

2.6 Network Rail remains a single legal entity, with over-arching obligations – as specified in its network licence – to secure the operation, maintenance, renewal, and improvement of the network to satisfy the reasonable requirements of customers and funders. In addition to this, we propose to include specific accountabilities on routes and the SO in the network licence, alongside the scorecard commitments and financial resources set out in the final determination.

2.7 We expect Network Rail to ensure there are appropriate governance processes in place so that different business units, and their stakeholders, are clear about who is accountable for what. We would also expect the following to play a role here:

- Network Rail's own reporting about its performance (e.g. scorecards, annual reports, and annual business plans), which should explain which business units are accountable for what. Our corresponding monitoring and reporting over CP6 will seek to complement this;
- the requirements we have placed on the FNPO to set out more clearly its governance arrangements; and
- the revised network licence that reflects (albeit at a high-level) the day-to-day responsibilities and the accountabilities for delivering to customers that sit with the routes and the SO. This will improve clarity about the allocation of responsibilities across the business and will enhance accountability of the management teams for meeting those obligations.

2.8 With respect to devolution and safety, Network Rail remains one legal entity, with one ROGS safety authorisation[7], describing one safety management system (SMS). The whole company has to comply with the SMS. Indeed, our safety regulation activities scrutinise whether this is the case in practice. Network Rail has a central safety and technical authority (the Safety, Technical and Engineering directorate – STE) to guide the routes and to monitor their compliance with its SMS and relevant engineering and safety standards.

2.9 With regards to Network Rail's proposed approach of having a lead route, we expect Network Rail to ensure that minority operators are properly considered, including by keeping under review with stakeholders the extent to which the approach of a lead route is working effectively. Our proposed licence changes include provisions that would strengthen the requirements on Network Rail to put in place appropriate arrangements to protect the interests of all operators running services that cross route boundaries.

Our monitoring approach

2.10 DfT and Transport Scotland expressed support for our proposed monitoring approach. In particular, DfT welcomed the proposed monitoring of Network Rail's efficiency and financial performance and the use of more leading indicators. Further to this, DfT encouraged us to continue with this approach and, if needed, to go further.

2.11 West Midlands Rail Executive (WRME) offered support for our proposed targeted monitoring of routes and the SO, but advised that these arrangements should be kept under review.

2.12 Several stakeholders expressed support for our proposed approach of increasing the use of comparison between routes. DfT gave strong support for the move towards separate monitoring of the performance of each of Network Rail's routes and the major central functions. It stressed that this is essential to the realisation of the benefits of route devolution.

2.13 DfT and DB Cargo pointed out that, in monitoring and reporting on Network Rail, we should make comparisons between routes, use benchmarking, share good practices between the routes, and make sure there is strong accountability (by, for example, having clearly and easily accessible comparisons presented in documents such as the Network Rail Monitor).

2.14 DB Cargo supported the move towards reputational incentives in CP6. DfT agreed (and singled out the use of hearings as a good example of reputational incentives).

[7] ROGS refers to the Railways and Other Guided Transport Systems (Safety) Regulations 2006

2.15 DfT also welcomed the proposed monitoring of Network Rail's efficiency and financial performance.

2.16 However, FirstGroup expressed concerns about using reputational incentives to guarantee good performance, suggesting this would not be effective on its own. Similarly, Arriva UK Trains Limited (Arriva) also expressed concerns about the effectiveness of reputational incentives, arguing that the largest reputational burden will fall on Network Rail's customers.

2.17 FirstGroup considered that financial penalties are still needed, but that they should be put towards reparation funds to improve delivery in the areas that failed. In this case, it considered that operators should have a say in deciding how reparation funds would be used to solve the issues observed.

Our response

2.18 In order to encourage Network Rail to perform in line with the needs of its customers and users, we expect to keep our monitoring approach over CP6 under review.

2.19 In monitoring and reporting on Network Rail over CP6, we will make greater use of comparison among the routes. We welcome stakeholders' advice in this area, and will take account of it in developing our approach to monitoring and reporting for CP6.

2.20 We expect reputational incentives will play just one part – albeit an important one – in supporting Network Rail's delivery to customers. This reflects Network Rail's status as a public body, meaning it does not face the same balance of incentives as a private company. It also reflects the importance of sharpening the incentives on senior management at route and SO level, and not simply targeting our regulatory actions at Network Rail as a single legal entity.

2.21 We will shortly be consulting on an updated monitoring and enforcement policy for Network Rail and welcome views on the appropriate use of incentives and sanctions. However, in respect of the points made by respondents, the current legal framework within which we operate means that we retain the power to fine Network Rail; however, any such fines must be passed to HM Treasury. Given that this would have the effect of removing funds from the industry – arguably reducing the likelihood that the underlying issues can be remedied – our view is that financial penalties should therefore remain a last resort.

2.22 We will be consulting further on both the use of and alternatives to financial penalties, including through the use of: our investigatory powers; improvement boards/plans; ORR hearings; and regulatory sanctions that have the potential to flow through to management bonuses.

Monitoring and reporting in CP6

Use of scorecards in monitoring and reporting

2.23 Stakeholders were generally supportive of the proposed scorecard policy.

2.24 However, several stakeholders recognised that securing agreement over what should feature in scorecards is difficult to achieve. In particular, Arriva and FirstGroup expressed concern about potential inconsistencies between the indicators used in scorecards and the targets defined in franchise agreements. In particular, the following two points were raised:

- there is an inconsistency between the Consistent Route Measure – Passenger (CRM-P) regulatory minimum floor of 20%, and the fixed targets for alternative performance metrics included in franchise agreements; and
- revised performance measures were included in franchise agreements, but these have not been adopted by Network Rail and ORR. It was argued that Network Rail will only be regulated on CRM-P.

2.25 Network Rail raised a few points regarding the revision and updating of scorecards throughout CP6. It expressed concerns about having to continue to report on a given scorecard measure when it has shown that it is no longer fit for purpose. More generally, it suggested the introduction of an annual review and change control process of scorecards.

2.26 DB Cargo and Rail Freight Group (RFG) raised concerns about scorecards not reflecting the importance of rail freight users. They argued that this is because the geographical routes will report on only one single freight metric, and all other freight related metrics will be included in the FNPO scorecard only. They were concerned this may lead to geographical routes not properly considering the needs of freight.

Our response

2.27 With regards to the difficulties in reaching an agreement on performance trajectories, this issue is discussed in detail on Chapter 4 of this responses document (on scorecards and requirements).

2.28 We do not consider that there is an inconsistency between the performance floor applied to Network Rail and franchise targets, not least as the floor is designed as a backstop rather than indicating the level of performance that we consider to be appropriate. Further, we have emphasised that CRM-P is only one measure that we will be using to monitor the company's performance.

2.29 More generally, we have developed our regulation of Network Rail to work alongside the commercial requirements of customers, including as set out in franchise agreements. In particular, our approach combines measures that focus on Network Rail's contribution to overall performance (e.g. CRM-P) while also including customer scorecards, which provide a vehicle for the company to agree the delivery of outcomes that meet customers' individual requirements.

2.30 With regards to the revision and updating of the scorecards, this is something we expect to happen as part of Network Rail's annual business planning process during CP6, reflecting customers' changing priorities. The process Network Rail and industry will follow in making changes to scorecards is discussed in Chapter 3 of our Overview Document, but does not involve formal change control approved by us. Instead, we will place reliance on any agreement reached between routes/the SO and customers in our ongoing monitoring and reporting. In the absence of agreed, updated scorecards, we will place more reliance on the trajectories set out in the final determination, alongside other available evidence.

2.31 Regarding the concerns about how freight-related measures are reflected in the scorecards, we expect Network Rail (including the FNPO and the geographic routes) to consider more fully how they can ensure they are reflecting freight stakeholders' priorities. We also expect the new FNPO Railway Board to play a role here in holding the FNPO to account for delivery to freight customers. In addition, our monitoring and reporting of Network Rail in CP6 will reflect the important role of freight customers, supported by updated licence conditions.

Aspects of Network Rail's performance to be monitored

2.32 Several respondents raised specific requests to monitor Network Rail's performance in the following areas:

- IOSH asked for clarity on how health and safety will be monitored in CP6. It expressed the view that the approach to health and safety in scorecards is under-developed compared to the revised economic approach. The Railway Safety and Standards Board (the RSSB) asked that its proposed safety framework be taken into proper account in the monitoring of health and safety;
- Natural England stressed the need to monitor whether environmental regulations were being respected by Network Rail;
- Abellio expressed concerns about how we will regulate and measure volume and efficiency of expenditure; and
- Transport Scotland expressed the view that monitoring Network Rail's progress with the maintenance and renewals programme is extremely important.

Our response

2.33 With regards to safety, our established safety oversight role of Network Rail will remain through CP6, and will continue to monitor all necessary aspects of safety, not only those reported on by Network Rail through scorecards.

2.34 More generally, we expect our monitoring and reporting to reflect the full range of Network Rail's performance (as well as monitoring supporting processes such as institutional and governance arrangements); however, we are also mindful of the need not to duplicate regulatory processes that are the responsibility of other organisations.

2.35 This will be reflected in our approach to monitoring and reporting on Network Rail in CP6.

Stakeholder engagement

Route supervisory boards (RSBs, now replaced by railway boards)

2.36 DfT considered that the RSBs were not yet operating in a satisfactory manner, and that Network Rail needed to clarify the role of these boards.

2.37 Midlands Connect raised concerns about our role in relation to RSBs. In particular, it asked for clarity on how we would ensure that the principles of effectiveness and transparency are fulfilled. More generally, it would like our involvement in guaranteeing that these boards operate satisfactorily.

2.38 Arriva raised concerns regarding the difficulty of the FNPO's RSB in securing the needs of its operators who run services across the network.

2.39 Arriva also expressed the view that there is a clear requirement for the presence of supervisory boards across routes. In particular, it stressed the importance of there being a 'North of England Supervisory Board'.

2.40 Network Rail agreed that change is needed compared with the previous RSB model, and set out how the route supervisory boards were being revised and replaced by new 'railway boards'. It outlined the following proposed features of the railway boards:

- they should hold the routes to account by way of escalating concerns within Network Rail, owning groups, and/or to ORR. The chair, through the scorecard and relative to the expectations set out in the final determination, should discuss performance and, where necessary, challenge it;

- they should identify causes of under-performance and agree practical action plans to remedy issues;
- they should be used to involve stakeholders in the annual business planning process and be a mechanism to develop and agree route scorecards;
- they should provide an appropriate level of information in the public domain through a key messages report with actions following each meeting and publish an annual plan for passengers explaining what they can expect from Network Rail and from other industry participants; and
- the railway board chairs should report to the chair of Network Rail.

2.41 On the FNPO route specifically, Network Rail responded that the FNPO will continue its annual stakeholder survey (and supporting pulse checks) to capture directly evidence on the quality of its stakeholder engagement. Furthermore, the FNPO would continue to enhance these, as well as act on the information provided in them.

Our response

2.42 We are supportive of the changes that Network Rail has made to these forums: the new railway boards have a role in holding the routes to account and there is a clearer approach to escalating issues.

2.43 As discussed in Chapter 3 of our Overview Document, we have also secured additional commitments from Network Rail about railway boards, namely that:

- all members of a railway board should provide their formal opinion about the route's performance in the railway board's annual report to ensure each member's interests and concerns are fairly represented; and
- the chairs of the railway boards should engage regularly with us (e.g. quarterly) so that we can take account of the boards in the way we monitor the routes' performance.

2.44 As such, we consider that the governance arrangements of the new railway boards should enable us to take account of them in monitoring Network Rail. However, we will keep this under review during CP6.

2.45 Finally, we expect Network Rail to reflect on all of the comments made and to keep the railway boards under review and to make changes in light of experience in CP6.

Principles of stakeholder engagement

2.46 Several stakeholders supported our approach to regulating Network Rail's stakeholder engagement. In particular, Abellio and the Rail Delivery Group (RDG) singled out support for our proposed approach of not being overly prescriptive when it comes to engagement, but rather setting out the principles for good stakeholder engagement.

2.47 Network Rail recognised the need to develop its stakeholder engagement process as per the principles set out by us, and pointed out it is taking measures in that direction, such as:

- the creation of a stakeholder engagement framework for CP6, which includes a single code of practice that establishes the principles to be followed when dealing with stakeholders;
- proposals for the publication of an annual stakeholder report for each route and the SO where they would report transparently on the key steps of the engagement process; and
- continued development of its approach to supplier engagement more generally, by for example making sure that stakeholders are invited to participate within reasonable timescales ahead of planned engagement, that briefing materials are properly circulated, that engagement is recorded, and that stakeholders are informed of how their requirements have impacted the plan.

Our response

2.48 We welcome Network Rail's commitments regarding its approach to working with stakeholders over CP6. We will monitor the quality of routes'/SO's stakeholder engagement as part of our overall monitoring and reporting of Network Rail in CP6, and we are also proposing new licence conditions with respect to Network Rail's stakeholder engagement.

2.49 We will also undertake an annual assessment of the quality of routes'/SO's engagement (which we will also consult on alongside our forthcoming updated monitoring and enforcement policy).

Role of Network Rail's local customers

2.50 Transport for Greater Manchester (TfGM) expressed support for the approach of bringing decision making closer to rail users and local stakeholders. However, it suggested that more attention should be given to regional funders.

2.51 Some stakeholders expressed the view that information provided to regional funders has been fragmented and, as a result, it is difficult for those parties whose interests extend across a number of routes to assess the impact of the different measures specified.

2.52 The Welsh Government asked for its role to be properly recognised by Network Rail in its engagement with stakeholders.

2.53 With regards to local stakeholders, Network Rail expressed a preference for letting those who manage stakeholder relationships at the appropriate local, regional, or national level to determine how best to apply the principles of engagement. It argued that this is preferable to being prescriptive on the measures to be taken to improve engagement, and would do a better job in accounting for different stakeholders' needs.

Our response

2.54 We recognise the points made by local stakeholders with respect to Network Rail's engagement. While we do not intend to prescribe who Network Rail engages with (or how), we do expect Network Rail's engagement to be inclusive. It should seek to involve all relevant stakeholders, adopting different approaches to reflect differing capabilities and interests.

Regulation of central functions

Network Rail's internal governance

2.55 DfT expressed concern about the balance of responsibility between Network Rail's routes/the SO and central functions within Network Rail, including Infrastructure Projects (which is responsible for developing, designing, and delivering renewals, enhancements, and large capital projects). It asked for our involvement in ensuring appropriate regulatory monitoring of Network Rail's central functions.

2.56 Arriva Rail North (Northern) highlighted the importance of Network Rail's internal governance in contributing to full accountability within the routes and the SO.

Our response

2.57 We expect Network Rail's internal governance arrangements to ensure that routes/the SO have the necessary information to understand the central functions' performance, and have the ability to hold the central function to account, where necessary.

2.58 Furthermore (and with Andrew Haines as its new chief executive), we note that Network Rail has recently initiated a '100-day programme' to review how the organisation is working, including how the interfaces between the routes, the SO, and Infrastructure Projects work.

2.59 We will monitor the effectiveness of Network Rail's internal governance with respect to this area in CP6. In addition, we are proposing a new licence obligation on Network Rail to ensure that routes/the SO receive any cooperation/assistance required to enable compliance with the licence obligations allocated to them. Network Rail must also establish, maintain and comply with governance arrangements that enable each route and the SO to perform their functions effectively and efficiently. These obligations will mean the routes/the SO will need to be able to put sufficient pressure on central functions, to provide incentives on them to be efficient and effective. More specifically, we are proposing that Network Rail will be required to ensure that routes/the SO are consulted on the procurement of goods and services that are procured centrally, including by being able to make representations on the suitability of these goods and services.

Contestability

2.60 Several stakeholders provided support for our proposal that the different business units within Network Rail should have a choice about whether they wish to procure services outside the central functions (e.g. by undertaking the service themselves or procuring it from outside Network Rail), where it is appropriate to do so. For example, DfT pointed out that this will further accountability, competition, and, ultimately, value for money. DB Cargo highlighted that this will likely lead to an increase in productivity, and to a reduction in unit costs.

2.61 However, the TSSA expressed a concern about routes being able to procure services outside of Network Rail. It claimed this would result in the loss of jobs.

2.62 Transport Scotland suggested further work is needed to examine the true extent of contestability (as well as the level of challenge from the routes on central costs) as it has seen limited evidence that this is the case.

Our response

2.63 With respect to the concern put forward by the TSSA, we consider that allowing routes to procure services outside Network Rail creates scope for additional efficiencies that, where they arise, could enable the route to spend additional funding in other areas (e.g. renewals to improve asset condition). It is not obvious that this would reduce the overall number of jobs in the industry.

2.64 Over CP6, we will monitor the extent to which the routes/SO have a choice over whether to procure those services typically provided by central functions outside Network Rail or to undertake the service themselves. Network Rail's internal governance arrangements should support route/SO flexibility in this respect.

2.65 To support this, we have proposed a new obligation on Network Rail, through its licence, to:

- enable the routes and SO to choose how to procure the goods and services they need (including those provided by central functions); unless
- it demonstrates this would be inconsistent with its licence (including the requirement of the Network Management Duty to act in an efficient and economical manner) or with another area of law.

Holding Network Rail to account

2.66 DfT expressed support for the proposed changes to escalate concerns before ultimately taking enforcement action.

2.67 Stakeholders raised several points regarding our role as the regulator of Network Rail. In particular, the following points were made:

- independent enforcement action needs to remain available to us to ensure that Network Rail delivers;
- even though operators would play a part in the regulation process, it was important that we recognise our role in monitoring Network Rail's delivery, as we have the appropriate tools to do so; and
- RFG advised that we should be more involved in designing scorecards, and Virgin Group and Stagecoach Group (Virgin & Stagecoach) said that we should be more involved in the subsequent enforcement of the scorecards.

2.68 Arriva called for more engagement between the FNPO and the geographical routes, and the possibility of the former holding the latter to account. Network Rail pointed out in its response that it was working on this issue.

2.69 Northern did not think regulatory minimum floors to be an adequate basis for potentially instigating an investigation into licence breach. It expressed the view that regulatory intervention for failing to deliver challenging improvement targets would be a far more powerful incentive than failing to deliver steady-state performance. FirstGroup considered that regulatory minimum floors were not enough, and that more options should be available to trigger investigations.

Our response

2.70 It is not our intention to reduce our role in holding Network Rail to account. Instead, we are putting in place a framework that we consider will improve the effectiveness of our regulation. We will set out more details on our proposed approach to holding Network Rail to account through escalation and enforcement in our forthcoming updated monitoring and enforcement policy for Network Rail.

2.71 With respect to our involvement in scorecards, we note that Network Rail 'owns' the scorecards and uses them as a tool with their customers to capture priorities, and to explain how Network Rail is performing against these. As part of our wider objective of ensuring Network Rail is more responsive to the needs of its customers (rather than ORR, for example), it is important that it and its customers are able to use scorecards to focus on the requirements of customers (rather than on looking to the regulator to codify what customers want). Building on this engagement, we will use scorecards in how we monitor and report on Network Rail's performance.

2.72 As discussed in our final determination, one of the triggers of a formal investigation into whether or not Network Rail has breached its licence is its performance against the regulatory minimum floors. This means that if Network Rail's performance falls below a certain level, then we will be highly likely to consider launching an investigation. However, there may be other reasons for an investigation to be launched, such as a clear failure to achieve what was expected (and we have emphasised that we may also investigate failures where performance is above the minimum floor level). Therefore, intervention for failing to deliver challenging improvement targets (as suggested by Northern, above) might very well happen if considered necessary. We will consult on an updated monitoring and enforcement policy for Network Rail, and as part of this we welcome views on the appropriate use of incentives and sanctions.

Managing change

2.73 There was support for our approach to managing change to the route and SO settlements in CP6, particularly from DfT who noted the importance of effective independent oversight that takes into account the views of stakeholders.

2.74 TSSA highlighted the need to consider appropriately and address the safety implications of organisational change before such changes are implemented.

2.75 Network Rail agreed with the need to engage with ORR about changes in organisational structure, as set out in our June 2018 document 'Conclusions on managing change affecting the PR18 settlements' (available here), but flagged some specific concerns. It considered that:

- it was important that there are appropriate materiality thresholds for the levels of change, recognising that the organisation and the business plan will continue to evolve during CP6;
- it was disproportionate for a reduction of in a core route budget to be classed as a 'level III' change and that this would increase the regulatory burden;
- criteria for the levels of change should not be based on changes in the annual expenditure profile, but rather changes in spend over the control period as a whole; and
- the Managing Change Policy should not be overly bureaucratic but allow Network Rail sufficient flexibility to run its business.

Our response

2.76 We will shortly publish our policy for managing change in CP6[8]. We have taken into account the comments received in response to the draft determination and further engagement with Network Rail in developing our policy.

2.77 Our policy is not intended to be burdensome but rather ensure Network Rail is sufficiently transparent about the change it is considering, including by engaging with stakeholders where a proposed change is likely to have a material impact on what is being delivered.

2.78 It is important that Network Rail explicitly considers and addresses any implications of proposed changes on safety, engaging with ORR's safety directorate as appropriate.

2.79 It is also important that changes that would bring the total available spend available to a route (or the SO) below the core route budget set out in the final determination are subject to an appropriate level of scrutiny.

2.80 Any change to the expenditure profile should be treated in the same way as changes to the overall funding for the control period. This is because we (as well as Network Rail's customers) are interested in deviations from proposed funding and what, in turn, is being delivered within years, rather than just across the five year control period.

[8] This will become available from this link when it is published.

3. Our assessment of the quality of Network Rail's stakeholder engagement

Overview

This chapter provides a summary of the main points raised by stakeholders on our assessment of the quality of Network Rail's stakeholder engagement in developing its strategic business plans (SBPs). Our assessment was set out in our draft determination supplementary document on stakeholder engagement and summarised in our draft determination overview document.

Quality of Network Rail's SBP stakeholder engagement

3.1 Some stakeholders took the opportunity to comment on the quality of Network Rail's SBP stakeholder engagement. Several recognised an improvement in the quality of Network Rail's stakeholder engagement, although there was a general view that further improvement was required.

3.2 Some stakeholders raised concerns over how Network Rail engaged with them. This included comments that Network Rail did not engage, or could have engaged better, as follows[9].

- **Trade unions and railway workers**. TSSA said that Network Rail did not consult with it, and therefore Network Rail's employees, on its strategic plans, and that this led to significant omissions. ASLEF welcomed the increased emphasis on engagement, but said that a lot could be gained from giving more consideration to the views of trade unions and rail workers.

- **Small open access operators**. Open Access Rail said that it can be difficult for small open access operators to participate in the large number of stakeholder meetings that take place, and said that Network Rail should try to find ways to include them more in the process.

- **Statutory environmental bodies**. Natural England said that Network Rail did not consult with statutory environmental bodies on its strategic plans. It contrasted this with the considerable engagement Natural England said it receives from Highways England and on road investment strategies.

[9] We present a detailed assessment of the quality of the routes'/SO's SBP stakeholder engagement in our Supplementary document on stakeholder engagement, which may be accessed here. We deal here only with stakeholder comments on areas we had not considered as part of that assessment.

Our response

3.3 We said in our draft determination that while we had seen improvements in the quality of the routes'/SO's stakeholder engagement, there was still significant room for development.

3.4 Looking ahead to CP6, the routes/SO should ensure that their engagement complies with our four principles for good stakeholder engagement. That is, that engagement should be effective, inclusive, well governed and transparent. In particular, they should engage inclusively by seeking to involve all relevant stakeholders (without undue discrimination) and adopting different approaches to reflect differing stakeholder capabilities and interests.

3.5 More generally, we have undertaken an assessment of Network Rail's stakeholder engagement in PR18 with a view to it building on this experience for CP6.

ORR's assessment of the quality of Network Rail's SBP stakeholder engagement

3.6 Network Rail challenged our view that earlier engagement on performance, or sharing draft performance trajectories, could have led to more agreement with operators on performance trajectories.

3.7 Network Rail's Western route challenged the accuracy of a statement made by one of its stakeholders in a report we published of a series of interviews and surveys of Network Rail's stakeholders carried out on our behalf by Steer Davies Gleave (the SDG report)[10]. The Western route said that the stakeholder had said that the route only engaged with it after it wrote to the route in autumn of 2017. The route disputed this and said that "the customer had a number of opportunities to engage, which included their attendance at our February 2017 stakeholder engagement workshop and being sent a draft copy of our route strategic plan for their comment in June 2017 (although no feedback was received)".

Our response

3.8 With regard to Network Rail's comment that earlier engagement and sharing of draft scorecards would not have led to greater agreement, we remain of the view that an early start, accompanied by robust modelling, could have achieved a better level of agreement around the likely level of performance in CP6 and the factors affecting it – even if not agreement on the trajectory itself.

3.9 For example, we note that both Wessex and South East routes have robust models which have been extensively discussed with their respective operators. While neither

[10] *Assessing the quality of Network Rail's routes'/System Operator's SBP stakeholder engagement*, Steer Davies Gleave, June 2018. This may be accessed here.

route was able to agree their trajectories, there was a clear acceptance by the operators of the methodology used. This is a helpful stepping-stone towards agreement. The responses received from operators on some other routes suggest a more material issue with either the engagement or the transparency or robustness of the modelling used. It is difficult to make an assessment of where the issues lie in these cases based on the information we have been provided with. However, an early discussion and meaningful dialogue in these instances may have enabled a better outcome.

3.10 With regard to the Western route’s comments on the SDG report, we note that our assessment was based on the full range of evidence reported by the routes/SO, their stakeholders and other sources. The SDG report stated that it reported the views expressed by stakeholders without making any comment on their veracity. Nonetheless, we are disappointed that there appears to be disagreement between Network Rail and one of its stakeholders over the details of what engagement took place, and we will consider how we could mitigate the risk of such issues in any similar exercises we carry out in future.

4. Scorecards and requirements

Overview

This chapter provides a summary of the points raised by stakeholders on our assessment of the scorecards that Network Rail included in its SBPs and on the requirements that we proposed to set the company in CP6. Our assessment and proposed decisions were set out in chapter 5 of our draft determination overview document and our scorecards and requirements supplementary document

In particular, these covered:

- our overall assessment of Network Rail's scorecards against the requirements that we set the company;
- our assessment of the level of performance that Network Rail proposed to deliver for passenger and freight operators;
- our assessment of the level of network sustainability that Network Rail proposed to deliver; and
- other requirements we proposed to set for Network Rail in CP6, such as network capability, network availability.

Our draft determination summary for Scotland set out the further requirements that we made of Network Rail to reflect the Scotland HLOS.

The final determination version of our scorecards and requirements supplementary document sets out more detail on our final decisions.

Scorecards in CP6

Role and use of scorecards in CP6

4.1 Our overall framework consultation and conclusions previously established our proposed use of scorecards in CP6. We said that:

- scorecards would have a central role in our regulation;
- we would make use of reputational and procedural incentives; and
- we would use comparison between routes as part of our regulation.

4.2 We reiterated the key policy points in our draft determination overview document and scorecards and requirements supplementary document.

Summary of stakeholder views

4.3 The responses to our draft determination reflected the role of scorecards in the industry, with Network Rail and DfT reiterating support for the use of scorecards in CP6.

4.4 Some concerns were raised, including the difficulty in agreeing scorecards. Rail Freight Group (RFG) wanted to keep under review whether outputs should be set outside of the HLOS or scorecards, in case this was not sufficient to scrutinise Network Rail and enable a holistic view of all outcomes.

4.5 Virgin & Stagecoach asked for clarity on how ORR intends to enforce scorecards.

4.6 Some respondents suggested further items that they felt should be included on scorecards. For example, Arriva wanted key investment milestones and efficiency targets to be reflected on scorecards. Freight operators and RFG also made suggestions about the content of scorecards.

Our response

4.7 We welcome the continued support for our approach to using Network Rail's scorecards as part of our regulation.

4.8 As set out in our draft determination, we are setting requirements for Network Rail outside scorecards and the specific requirements of the HLOSs, e.g. in relation to the capability of the network (see below and our final determination scorecards and requirements supplementary document). We will also continue to monitor Network Rail using a wider set of data e.g. in relation to availability of the network.

4.9 We will be using scorecards to inform our monitoring during CP6. The process of Network Rail agreeing annual scorecards will allow routes/SO and customers to establish stretching and realistic forward-looking targets for delivery, updated to reflect the available evidence. Where agreed, these will provide important information to inform ORR's assessment of Network Rail, and help to sharpen the reputational and financial incentives on the company to improve. We can also make greater use of comparison across routes and between the CP6 baseline trajectories we set in our final determination and Network Rail's annual scorecards.

4.10 Our approach to enforcement will be set out in our monitoring and enforcement policy. We will also engage directly with stakeholders at appropriate cross industry forums (e.g. the National Task Force (NTF)) to explain our approach more fully.

4.11 The content of annual scorecards will be established between Network Rail and its customers and stakeholders. We continue to recognise that there is a limit to the number of measures that can usefully be reflected on scorecards. Where Network Rail is unable to reflect customer or stakeholder priorities on its scorecards we expect it to find other suitable ways to meet its customer or stakeholder needs (e.g. provision of separate information or reporting, regular engagement, etc.).

Transparency

4.12 In our draft determination, we set out our concerns around the transparency of Network Rail's scorecards. Network Rail's stakeholders were not always clear what each measure represented and therefore what Network Rail is holding itself accountable for.

Summary of stakeholder views

4.13 Northern shared these concerns, as it found inconsistencies in the application and understanding of scorecard measures across LNE&EM and LNW routes. It considered that this also extended to the level of ambition and risk across the routes. Virgin & Stagecoach also highlighted this issue and considered that they should be more involved in the process for defining measures.

4.14 Network Rail acknowledged this issue and committed to centrally assuring and challenging definitions for consistent route measures and publishing them on an annual basis. Routes will also publish definitions for measures agreed with local stakeholders.

4.15 Regarding the level of challenge, Network Rail committed to making sure there is a consistent level of stretch within trajectories for route consistent measures. Network Rail's Business Review Team (BRT) will oversee the assurance processes carried out by the individual teams within Network Rail. It noted that routes were also strengthening their processes to develop and report scorecards.

4.16 It explained a new approach for how scorecards would be updated and reported against. This is to:

- update scorecards annually to reflect changes in circumstances and customer priorities, starting with its delivery plan;
- explain how its plan has changed, highlighting the engagement that has taken place and the level of agreement where appropriate;
- explain changes to scorecard trajectories with reference to its previous plan during CP6; and
- reference the latest scorecard/plan in its in-year and year-end reporting.

Our response

4.17 We welcome Network Rail's response to the concerns raised in this area. Improving the level of governance around scorecards is critical to transparency and thus more effective as a tool for Network Rail and its operators to achieve alignment, and for giving stakeholders a greater level of confidence in scorecards.

4.18 We remain of the view that considerable work needs to be done to fully achieve and sustain appropriate levels of transparency. We will review Network Rail's progress against these commitments and we expect it to carry out an appropriate level of stakeholder engagement in defining measures and when making any updates to trajectories. We, therefore, require that there should be consistent definition and calculation of measures for recognised industry measures (such as the public performance measure (PPM), 'on time' or cancellations measures) as well as to consistent route measures (such as the consistent route measure – passenger performance (CRM-P)). Where Network Rail creates measures that are bespoke to a route or operator, it should clearly define the measures and the source of data. We expect appropriate levels of assurance to be in place to ensure consistency of reporting during the control period and over time.

4.19 Our ongoing monitoring will consider Network Rail's internal governance including its central assurance processes and use of route supervisory boards (RSBs - now defined by Network Rail as railway boards) in achieving appropriate stretch in its targets. As set out in our draft determination, we may use the independent reporters to assess Network Rail's progress and strength of governance in this area.

The role and governance of scorecards

4.20 A number of stakeholders highlighted points related to the governance of scorecards and engagement as it specifically relates to scorecards.

4.21 Our summary and response to comments on stakeholder engagement more broadly are covered in chapter 3 of this document.

Summary of stakeholder views

4.22 Network Rail confirmed it has strengthened RSBs to have a role in agreeing and delivering scorecards. Virgin & Stagecoach also saw a role for these boards to track performance against scorecards.

4.23 In our draft determination, we said that due to the nature of its business, XC Trains Ltd (CrossCountry) should be reflected on all route scorecards where it operates. We also noted a concern raised by Nexus that it was not represented in the LNE&EM RSP. In its response, Network Rail said that:

- The LNE&EM route had accepted this challenge and included a measure for CrossCountry on its route scorecard, as well as one for Nexus;
- The Wessex route would continue to work with the FNPO to monitor performance for CrossCountry on the Wessex route scorecard; and

- The Anglia route did not include (as we had requested) a measure for CrossCountry on its route scorecard. It said that it did not consider it appropriate, as it was not the lead route for CrossCountry. However, it has committed to regular joint sessions on cross-route performance with CrossCountry.

4.24 DfT identified that as a major customer/shareholder it wanted greater visibility and engagement with scorecards before final decisions were made. Similarly, West Midlands Rail Executive (WMRE) noted that it holds a number of statutory roles and as such felt that it should have a greater opportunity to input into scorecards. Nexus also said it had not been involved in the process to agree the LNE&EM scorecard.

4.25 ASLEF recognised the challenges associated with seeking to address the requirements of all stakeholders on scorecards.

Our response

4.26 We welcome LNE&EM's adoption of both CrossCountry and Nexus measures on its route scorecard. We also welcome Wessex's commitment to work with the FNPO to monitor performance of CrossCountry on its scorecard.

4.27 We remain of the view that Anglia should include a measure for CrossCountry on its route scorecard. The nature of CrossCountry's operation means that it faces a particular risk that routes may place insufficient weight on its operations, and instead focus unduly on their 'lead' operators. In this respect, Anglia's response emphasises our concern in this area, as does the recent performance challenges relating to CrossCountry. Given this, we may carry out further detailed monitoring and engagement with Anglia route in relation to CrossCountry performance. Our proposed amendments to Network Rail's network licence would require the company as a whole to put in place appropriate arrangements to meet the challenges presented by operators that operate across multiple routes.

4.28 We understand that Network Rail and DfT are updating their framework agreement regarding DfT's particular customer/shareholder role to secure an appropriate level of timely engagement in the development of scorecards.

4.29 We note the points raised by WMRE and Nexus and agree it is important that routes engage appropriately with such organisations, given their role in the provision of services.

Change to scorecards

Summary of stakeholder views

4.30 A number of stakeholders queried how changes to scorecards are managed, how this relates to the formal managing change process, and suggested a mechanism to change Schedule 8 benchmarks.

4.31 Network Rail set out how it expected scorecards to change and be reported against over time and said it will update scorecards to reflect changes in circumstances and customer priorities.

4.32 DfT welcomed that performance trajectories could change to reflect newly committed enhancements.

4.33 Freightliner Group (Freightliner) saw a need for a clear change control process.

Our response

4.34 Scorecards are updated on an annual basis, so that they capture agreed trajectories that are stretching and realistic, given the available information at the time. They will complement the wider monitoring and reporting that ORR undertakes. We will, in particular, use the CP6 baseline trajectories included in our final determination to put any agreed changes to scorecards in the context of Network Rail's longer-term performance, and delivery against the PR18 settlements.

4.35 We are setting a CP6 baseline trajectory for certain key measures in our final determination in order to enable us to assess this annual change against the CP6 baseline trajectories.

4.36 We have clarified how the various change processes should work in CP6 in Chapter 3 of our final determination overview document and further detail on Schedule 8 is set out in Chapter 9 of the same document.

Route comparison scorecard

Other consistent measures

4.37 Network Rail has committed to produce a 'route comparison scorecard' that will reflect all consistent measures. Network Rail centre has mandated some consistent measures that all routes must report on. It will also include measures that we have requested.

Use of the network measures

4.38 In our draft determination supplementary document on scorecards and requirements, we set out our analysis and conclusions on Network Rail's proposals for 'use of the network' measures.

Summary of stakeholder views

4.39 Network Rail committed to including 'use of the network' measures (reflecting passenger and freight usage) on its route comparison scorecard. However, it questioned the usefulness of these measures, suggesting they would not allow accurate comparisons between routes.

4.40 Network Rail suggested that rather than setting a growth forecast at the start of the control period it would be more meaningful to set an annual growth forecast and report actual quarterly growth against this forecast as it is more accurate.

Our response

4.41 We welcome Network Rail's commitment to include 'use of the network' measures on its route comparison scorecard. These measures are important to Network Rail's customers as the ability of TOCs/FOCs to make maximum use of the network is central to their ability to grow their businesses.

4.42 We have reviewed Network Rail's proposal against our draft determination and we consider it has merit. An annual growth forecast will provide a more accurate baseline to assess actual quarterly traffic growth for both passenger and freight services.

End-user experience measures

4.43 In our draft determination supplementary document on scorecards and requirements we set out our requirements for 'end-user experience' measures.

Summary of stakeholder views

4.44 Network Rail agreed with our decision that 'end-user experience' measures should be reported twice a year. However, it wanted the scores to be compared on a seasonal basis e.g. spring vs. spring rather than wave to wave e.g. spring vs. autumn.

4.45 It also suggested that when reporting passenger satisfaction with the managed station(s) there may be value in weighting the route average by station footfall as this may represent a more accurate assessment of the number of station users on a route.

Our response

4.46 We welcome Network Rail's commitment to include 'end-user experience' measures on its route comparison scorecard. We have reviewed Network Rail's proposals against our original decision in the draft determination and have concluded:

- comparing results for both measures on a seasonal basis (spring vs. spring) will provide a more meaningful basis for comparison and show accurate improvement or decline rather than highlight seasonal variations; and
- Network Rail will use the National Rail Passenger Survey boosted sample data for the managed stations satisfaction measure, this sample is weighted by footfall.

Financial measures

4.47 In our draft determination supplementary document on scorecards and requirements we set out our decisions in relation to financial measures on scorecards.

Summary of stakeholder views

4.48 ASLEF said that Network Rail and ORR had not agreed what information should be included on scorecards to monitor delivery and financial assessments, and considered that this needed to be resolved.

Our response

4.49 Our draft determination set out the requirements for a measure of financial performance to be included on scorecards to achieve balance and reflect current end-user interests. Network Rail committed to three specific measures for inclusion on the route comparison scorecard which were set out in our draft determination:

- Financial Performance Measure (FPM) – Gross Excl Enhancements (£m);
- Financial Performance Measure (FPM) – Gross Enhancements only (£m); and
- Cash Compliance – Income & Expenditure.

4.50 We maintain our position from the draft determination. More information on how we will monitor Network Rail's financial efficiency can be found in our final determination financial framework supplementary document.

Third party investment measures

4.51 In our draft determination supplementary document on scorecards and requirements we set out that a consistent measure of third-party investment was not suitable for inclusion on route scorecards due to routes attracting different types and scales of third-party investment. However, we still wanted Network Rail to reflect third-party investment on its route scorecards.

Summary of stakeholder views

4.52 Network Rail did not consider that a measure for third-party investment was ready for inclusion on route scorecards given the variation between routes in the potential value of third-party investment.

4.53 It also stated that the development of third-party opportunities was at an early stage of maturity, which meant it had not thoroughly tested progress reporting metrics to assess whether they constructively reflect performance in this area. In the meantime, it proposed to report qualitatively on this area.

4.54 A number of specific comments were also made in relation to third-party investment more generally:

- Transport for Greater Manchester (TfGM) considered that not enough focus had been placed on the needs of regional and third-party funders in PR18;
- Arriva considered the SO should work closely with the routes to proactively develop business cases for presentation to third-party funders; and
- ASLEF stated that it opposed a model for third-party investment as it may lead to further fragmentation within the industry.

Our response

4.55 We remain of the view that a measure for third-party investment is not yet sufficiently mature to be included on route scorecards. However, it will mature during CP6 and therefore Network Rail should continue to develop its thinking in this area.

4.56 We accept Network Rail’s proposal to focus on qualitative reporting instead of a consistent scorecard measure.

Non-scorecard requirements

Network capability

4.57 In our draft determination, we stated that Network Rail should protect and maintain the baseline capability of the network and that all changes should go through the recognised industry processes throughout CP6. We also said we would continue to work with Network Rail to set the baseline for the start of the control period at route level.

Summary of stakeholder views

4.58 Network Rail agreed with our conclusions in the draft determination, and

- proposed that monitoring management of network capability in CP6 should be route-based; and
- noted that the CP6 settlement would only fund maintenance of network capability and if enhancements were delivered this would be funded separately and suggested the baseline should be adjusted to reflect this.

4.59 There was broad support for Network Rail to maintain the baseline capability of the network. We received some specific comments from freight operators; for example DB Cargo said that network capability was critical to its business decisions and it relies heavily on the published information being accurate.

Our response

4.60 The responses we received in relation to network capability further emphasise the requirement for Network Rail to protect and maintain the baseline capability of the network.

4.61 We have commissioned the independent reporter, Arup, to review the current situation on network capability in England & Wales and Scotland, including whether Network Rail is on track to deliver the end of CP5 regulated output target. Arup's recommendations will help inform our monitoring position and assessment of network capability and the right approach for measuring network capability in England & Wales and Scotland in CP6.

4.62 The Scotland route confirmed that it will have a gauging strategy in place for the start of CP6. This will meet a specific Scottish HLOS requirement.

Network availability

4.63 Network availability remains an important area for our monitoring in CP6. The objective of monitoring network availability is to encourage Network Rail to reduce the levels of disruption to passengers and freight customers caused by planned engineering work. It aims to provide a balance to the amount of engineering work undertaken so that the network can be maintained, renewed, or enhanced without unduly disrupting end-users of the railway.

4.64 In our draft determination we said that there was not a need to set an additional specific target in this area for CP6 but stated we would monitor Network Rail's delivery of network availability in CP6. However, we would continue to discuss the development and implementation of a new suite of measures with Network Rail including a measure for extended journey time (EJT).

Summary of stakeholder views

4.65 Network Rail proposed to use a combination of qualitative and quantitative approaches to monitor how effectively it was managing its possessions for engineering access. It considered that there would be merit in conducting an annual customer survey in respect of this (ORR conducted a similar survey in late 2017).

4.66 It did not agree with a measure proposed by the SNC-Lavalin report on network availability that was commissioned by ORR. This had recommended a measure of EJT, which captures the increase in journey time and cancellation minutes in the plan of the day compared to the corresponding day timetable. Network Rail does not think this measure is informative for customers or end-users and that there would be cost implications to create and maintain a service group weighted measure of availability.

4.67 No other stakeholders commented specifically on our proposals for measures of network availability. Northern commented on the unprecedented volumes of late notice possessions it was experiencing and the impact of this. Northern wanted a closely monitored metric and KPIs linked to schedule 4. Plymouth City Council stated it would like to see fewer days of disruption from engineering possessions.

Our response

4.68 We will work with Network Rail to establish an appropriate suite of measures to monitor and assess the availability of the network. We will use the measures proposed by Network Rail in its draft determination response (access disputes, late notice changes, carrying out an annual survey) as the basis for this.

4.69 After reviewing Network Rail's response to the draft determination and considering the measures Network Rail has proposed, we have decided not to use EJT as a measure in CP6.

Reactionary delay and cancellations

4.70 In our draft determination supplementary document on scorecards and requirements we set out our decisions on reactionary delay and cancellations. CRM-P includes Network Rail-caused reactionary delay but does not include TOC-caused reactionary delay. Network Rail remains responsible for managing all delay on the network. We said that:

- we expected Network Rail to publicly report on reactionary delay during CP6;
- we considered which function within Network Rail should be accountable for this requirement;

- we would review the levels of reactionary delay through our regular monitoring and reporting and may intervene if evidence emerged that Network Rail was not adhering to its commitments to manage reactionary delay effectively; and
- we would continue to receive and monitor cancellations data from Network Rail and that we would challenge Network Rail should any trend in data become apparent that is inconsistent with CRM-P.

Summary of stakeholder views

4.71 We received support for our decisions relating to reactionary delay and cancellations.

4.72 WMRE welcomed our focus on reactionary delay and noted our commitment to intervene if Network Rail was not managing reactionary delay effectively.

4.73 Network Rail agreed with our decisions and proposed:

- to include reactionary delay data in its annual return;
- to agree a reporting protocol with ORR for CP6; and
- to continue to report cancellations data to ORR.

4.74 We also received general comments which related to our decisions for reactionary delay and cancellations:

- London & Southeastern Railway Ltd (Southeastern) suggested that the drive for investigating poor reactionary delay should be led by train operators and said it was important that Network Rail was not incentivised to cancel services during traffic peaks;
- Nexus considered this an important area for focus as there had been occasions where incidents have caused low levels of delay minutes but it has experienced large levels of cancellations;
- FirstGroup stated that CRM-P was leading Network Rail to focus only on its performance and that it was no longer supportive of this measure; and
- Arriva wanted Network Rail to do more to deliver its role in managing traffic on the network to reduce reactionary delay and felt this should be measured in performance trajectories.

Our response

4.75 We welcome the support received from industry in relation to our requirements for reactionary delay and note the concerns raised about cancellations. We have taken on board Network Rail's proposed approach, the comments we received, and considered our position. We have decided that:

- Network Rail should report (at least) annually and publish figures at national, route and operator level on a period-by-period basis for both reactionary delay and cancellations; and
- these should be discussed at an appropriate cross industry forum (e.g. NTF) and at each RSB and the SO Board.

Passenger performance

4.76 Due to the different nature of the HLOSs in England & Wales (E&W) and Scotland, we have addressed these separately.

England & Wales performance

Process for agreeing passenger performance trajectories

4.77 It is important to distinguish clearly between two different sets of measures when discussing passenger performance. Firstly, routes were asked to agree suitable performance measures with their customers. In most instances, passenger operators wanted performance to be measured using PPM. Secondly, routes were also required to agree an overall performance measure to reflect the route contribution to train operator performance, using the consistent route measure of passenger performance: CRM-P. CRM-P is a measure of Network Rail's performance and is based on delay minutes.

4.78 Our approach to scorecards has been informed by the need for closer alignment between Network Rail and its customers on issues such as performance. This was also highlighted in the Shaw report in 2016.

Summary of stakeholder views

4.79 A number of stakeholders raised concerns about the process for developing and agreeing performance trajectories:

- FirstGroup suggested that the process had been "a frustration", with engagement being inconsistent and limited, and that this was worse than experienced during CP5;
- Abellio cited a lack of engagement at early stages as the reason for trajectories not being agreed;
- RDG cited a lack of clarity on how CRM-P trajectories had been calculated by Network Rail and that some operators felt that this had affected their ability to

challenge trajectories and impacted on the ability for Network Rail and operators to reach agreement; and

- ASLEF was concerned that performance trajectories were being developed on an ‘ad hoc’ basis.

4.80 Some stakeholders raised concerns about Network Rail’s modelling approach – in particular, Arriva (and its constituent operators) raised concerns about:

- CP5 exit position and whether ‘one off’ issues should reverse out;
- the FNPO's methodology to assess geographical impacts on CrossCountry’s PPM;
- the model for converting PPM to CRM-P; and
- insufficient visibility of supporting detail and drivers behind forecasts.

4.81 A key theme in responses was the focus of comments on the process for agreeing performance trajectories. In particular, we received comments regarding engagement and agreement with the LNE&EM route, with Grand Central Railway Company (Grand Central), Northern and London North Eastern Railway Limited (LNER) all raising concerns. Northern highlighted what it felt was an inconsistent approach across LNE&EM and LNW routes when trying to agree performance trajectories.

4.82 In contrast, Southeastern noted that it had worked well with the South East route to collate and verify the inputs into the modelling. It was able to provide a clear statement that it understood the quantification, assumptions and model but was unable to support the trajectory that Network Rail was aiming to deliver. Similarly, GTR noted that it was fully engaged in discussions on trajectories but was unable to support the trajectory for CP6 as there was no significant improvement expected over the control period.

4.83 Network Rail responded that routes had engaged with customers to review trajectories. It noted that the level of engagement and agreement varied across customers and routes.

4.84 A number of comments were made about the franchising process. RDG suggested that as Network Rail’s fixed funding meant that Network Rail could no longer increase funding to deliver outputs, franchises should no longer have fixed performance targets either. Network Rail suggested that the performance requirements of a number of franchises had been set at levels that are not substantiated by credible delivery plans and that operators had informally accepted this. In its response, DfT stated it was prepared to discuss franchise targets with train operators but that train operators still needed to work closely with Network Rail to improve train performance.

Our response

4.85 We have noted that Network Rail has so far only agreed performance trajectories with a quarter of its customers. It is clear that operators had a variable experience in terms of the levels of engagement and information shared.

4.86 We consider that there are a number of issues underlying this:

- different approaches taken by routes to performance modelling;
- lack of consistent standards for developing performance strategies and plans;
- franchise targets that do not align with proposed performance trajectories for CP6;
- lack of appropriate joint planning by both Network Rail and train operators; and
- inconsistent engagement and information sharing between Network Rail and train operators.

4.87 Our scorecards supplementary document sets out the approach that we have taken in relation to setting performance trajectories on routes.

4.88 Given the level of uncertainty about performance in CP6 and the level of change expected (e.g. with large enhancements being delivered via the pipeline process), we expect that there will be a continued need to assess the likely future level of performance. We consider that Network Rail needs to do more to establish a consistent set of standards in relation to performance modelling for routes. This will create a consistent base on which the routes can build their assumptions and then share this information with their customers. It will also give us a stronger base from which to assess likely performance impacts when we are assessing changes.

Level of performance proposed

4.89 The Secretary of State's HLOS expected Network Rail and its customers to agree stretching yet realistic targets for CP6.This reflects the importance that passengers place on train performance.

Summary of stakeholder views

4.90 A number of operators and organisations raised concerns with the level of performance proposed by Network Rail, which they considered to be inappropriate for a number of reasons:

- the performance levels proposed did not align with franchise commitments;
- the levels lacked ambition for the funding being provided to Network Rail;

- some operators considered that Network Rail was relying on operator initiatives to deliver performance improvements and had not identified schemes of its own; and
- the assumptions were too cautious e.g. the impact of timetable changes.

4.91 Grand Central said that performance plans were in place but that these had not been carried through to the operations and performance sections of route strategic plans (RSPs).

4.92 Many operators reflected on the recent decline in performance, with Virgin West Coast noting the further deterioration in performance meaning the CP5 exit point would not be reached as a key issue in their inability to agree a trajectory.

4.93 Southeastern expressed disappointment that the additional vision schemes set out in the South East route's RSP had not been funded in the draft determination, as these would bring performance improvements. Similarly, Arriva wanted the additional investment in sustainability discussed in the draft determination to flow through into improved performance outputs.

4.94 Transport for London (TfL) and TfGM asked ORR to be more demanding of Network Rail in setting performance trajectories for CP6.

4.95 In contrast Network Rail stated that:

- the trajectories it proposed were realistic and achievable;
- these trajectories should be used to set Schedule 8 benchmarks;
- a Schedule 8 reopener should be used for large enhancements such as Thameslink, but also in the event that performance has been understated;
- its plans to reverse the predominantly downward trend of the last seven years;
- if ORR were to arbitrate on trajectories it may undermine the role of scorecards; and
- it considered ORR should set any baseline trajectories in line with its CRM-P proposals as these were achievable.

4.96 RDG asked for clarity on how ORR will regulate performance targets at route level during CP6. It stated that:

- operators continued to have concerns about the process that has been followed and the quality of discussion and analysis before and after the draft determination;

- there is a lack of clarity around how CRM-P trajectories have been calculated by Network Rail, with clarity on influencing factors but not how these have been translated into performance impact; and
- it would continue to facilitate discussions between Network Rail and train operators to support performance improvements.

4.97 DfT stated that the critical issue was to strike a balance between ambition and realism. It saw performance of the network as a key output for CP6. DfT cited readiness for the beginning of CP6 as being of critical importance and that ORR should drive a focus on improving this ready for the start of CP6.

Our response

4.98 We explain in our final determination version of the scorecards and requirements supplementary document the process we have undertaken to set CP6 baseline trajectories for CRM-P.

4.99 It is clear that the level of engagement between Network Rail and operators needs to improve in some cases. There is a limited record of what engagement had taken place between Network Rail and operators. These issues continued recently, as Network Rail provided a further set of trajectories to us as part of its draft determination response. Its process for sharing these revised trajectories with its customers was inconsistent.

4.100 It is important Network Rail and operators agree measures, trajectories, targets and plans for how they will deliver performance improvements.

4.101 Over time, there should be broad alignment between franchise targets and the targets operators are agreeing with Network Rail for scorecards. However, scorecards are intended to be a forward-looking trajectory, based on the evidence available about what is realistic to expect of Network Rail. Scorecards cannot, in themselves, address historical issues when franchises have been entered into against assumptions that do not, in the event, reflect possible outturn performance.

4.102 Going forward, it will be important for the System Operator to take a more active role in the franchising process and to sign-off assumptions about potential levels of future performance. This will support greater levels of alignment between franchise targets and scorecards; accepting that circumstances will change and that this will lead to both positive and negative variances between the two.

4.103 In the context of levels of performance, a number of comments were made about Schedule 8 These comments are addressed in Chapter 9 of this document.

Scotland passenger train performance

4.104 For each year of CP6, the Scottish Ministers have set a PPM target of 92.5%. At the time of the draft determination, Network Rail's forecasts showed it would not achieve this target in year 1 of CP6. While we recognised that there were some potentially significant risks to delivery, we said in the draft determination that the ScotRail PPM target for the first year of CP6 should align with the HLOS target of 92.5%.

4.105 We said that the obligation on Network Rail is to achieve the target to the greatest extent reasonably practicable having regard to all relevant circumstances.

Summary of stakeholder views

4.106 In its response to the draft determination, the Scotland route confirmed its latest view on its proposed performance trajectory and associated CRM-P. It considered that given performance trends since the publication of its RSP and the impact of the removal of 'skip stopping' as a performance management tool, it now considered that it was unlikely to achieve ScotRail PPM of 92.5% until year 3 of CP6. For years 1 and 2, the route is forecasting PPM of 90.5% and 91.5% respectively.

4.107 Reflecting this revised forecast, the Scotland route provided a revised CRM-P trajectory in its draft determination response.

Our response

4.108 We remain of the view that the PPM target for Scotland route should be 92.5% and Network Rail should aim to achieve this target to the greatest extent reasonably practicable having regard to all relevant circumstances.

4.109 For the CRM-P CP6 baseline trajectory, we accept the route's revised proposals for years 1 and 2. Network Rail has confirmed that this trajectory has a P50 level of modelling confidence.

4.110 The purpose of the CRM-P CP6 baseline trajectory will be different in Scotland compared to England & Wales. While we will hold the route to account against its PPM target for ScotRail (and 'right time' for Caledonian Sleeper), in the event of performance being below expectations, we will use CRM-P to provide further insight on the routes contribution to overall performance (reflecting that CRM-P records Network Rail caused delay only).

Freight performance

National FDM and route-level FDM-R (England & Wales)

4.111 In our draft determination supplementary document on scorecards and requirements we set out our analysis and conclusions on Network Rail's proposals for freight performance. We said that:

- Network Rail's proposal for its national FDM target of 94% seemed reasonable as it was consistent with the forecast CP5 exit point and there was a good degree of agreement around the general level of performance; and
- Network Rail's proposal for its route level FDM-R targets seemed reasonable. Network Rail told us that FDM-R targets had been set at a sufficient level to meet national FDM. In the event these do not meet national FDM, Network Rail would have to adjust FDM-R to meet national FDM.

Summary of stakeholder views

4.112 Network Rail welcomed our view that its freight performance trajectories for both FDM and FDM-R were reasonable, and stated that:

- it would review freight performance trajectories with its customers when it updates its delivery plan;
- freight performance is likely to become progressively more challenging given the changes in freight traffic mix and geography but it remains committed to a national FDM target of 94% for CP6; and
- it recognised our commitment to publish FDM-R CP6 baseline trajectories in our final determination and confirmed it would continue to review the alignment of national FDM and route level FDM-R trajectories but that it would not automatically adjust FDM-R targets to meet national FDM.

4.113 There were differing views among other stakeholders regarding the level of challenge that the national FDM target of 94% represented.

- GB Railfreight (GBRf) considered the target would be challenging for the industry but wanted the FNPO to provide a line of sight in order for it to achieve 95% to make rail freight sustainable and attractive for investors. Whereas,
- Freightliner commented that the FDM target of 94% lacked ambition and noted that during CP5, Network Rail has performed above this level. It also reiterated its view that it had not been asked by the FNPO to agree changes to FDM performance trajectories.
- Rail Freight Group supported our conclusions on the FNPO plan.

4.114 A number of stakeholders raised concerns regarding the FNPO's governance arrangements. Freightliner would like to see explicit obligations placed on geographic routes that would take account of the interests of freight operators and end-users. A number of specific comments by other stakeholders were also made on this.

- ASLEF considered that setting network-wide targets for the FNPO was problematic as the route does not control the movement of trains or manage assets. It considered that the geographic routes should have responsibility for freight performance on their routes and raised a concern that passenger services would be given priority access over freight services.

- DfT agreed with our recommendations for the FNPO which we listed in our Freight and National Passenger Operator draft settlement document and wanted Network Rail to implement these but raised concerns regarding the FNPO's governance arrangements. It wanted the FNPO to be empowered to protect the interests of the freight industry.

- RFG supported our requirement for the FNPO to define better the governance arrangements between itself and the geographic routes. RFG was however, concerned that other incentives for the FNPO, e.g. freight growth, were weak. It noted in particular that a single freight measure on geographic route scorecards could drive behaviour to accept less freight so as to meet performance targets.

- RDG commented that the FNPO must have sufficient influence over geographic routes and support from the SO to deliver for its customers.

- Network Rail confirmed that the FNPO would share its governance and reporting framework with its stakeholders to demonstrate how each part of Network Rail is held to account for delivering freight and national operator performance.

4.115 Some stakeholders suggested that geographic route scorecards could be better balanced by including more measures that reflect the priorities of freight customers. There was a concern that geographic routes lacked an incentive to accommodate freight growth. A number of specific comments were made:

- DB Cargo said that the scorecards did not reflect the importance of freight users and it was concerned that geographic route scorecards only include one freight measure (FDM-R). It considered that a single freight measure that reflects performance could drive the geographic routes to accept less freight traffic to ensure performance targets are met; and

- Freightliner was of a similar view, and was concerned that geographic routes lacked an incentive to accommodate freight growth.

Our response

4.116 We maintain our position from the draft determination in relation to the national FDM CP6 baseline trajectory. This should be set at 94%. However, we note comments received from stakeholders in relation to this.

4.117 The FNPO has recently changed its methodology for calculating FDM-R. This has prompted us to review our decisions on FDM-R due to two issues:

- inconsistency between trajectories and reporting methodology which will last throughout CP6; and
- a risk that national FDM could be missed but routes could still achieve their route FDM-R targets.

4.118 Having reviewed our decisions we require the FNPO to use the new methodology at route level and to seek to agree revised trajectories (based on the updated methodology) with each geographic route. A route would need to provide compelling evidence to depart from the trajectories proposed by the new methodology.

4.119 We received comments from stakeholders regarding the FNPO's governance arrangements and discuss these in more detail in Chapter 10 of this document. We have also set out proposals for changes to Network Rail's network licence, which would strengthen the obligations on the company to address the particular issues faced by the FNPO's customers.

Route level FDM-R (Scotland)

4.120 In our draft determination supplementary document on scorecards and requirements we set out our analysis and conclusions on Network Rail's proposals for freight performance in Scotland. We noted that:

- the Scottish HLOS required a 93% entry point with staged improvements to a 94.5% exit point;
- the FNPO and Scotland route had agreed a flat trajectory of 94.5% throughout CP6; and
- we had therefore accepted Network Rail's proposal for FDM-R but noted that its delivery could be challenging in the early years of CP6.

4.121 We did not receive any comments specific to FDM-R on the Scotland route.

4.122 Accordingly, having considered our proposed decision in the draft determination, we remain of the view that the FDM-R for Scotland route should be set at 94.5%

throughout CP6, rather than making any adjustments to reflect the new methodology (as per the routes in England & Wales (see above)).

Performance innovation fund and flexibility of the regulatory regime

Should we establish the fund? How large should it be?

Summary of stakeholder views

4.123 Nine stakeholders supported establishing a performance innovation fund. None opposed it, although Network Rail said it was not clear on the purpose of the fund.

4.124 Southeastern said that £10m over CP6 was too little, and FirstGroup said it would advocate a fund of at least £10m per year (that is, a total of £50m over CP6) to drive “real improvements”. The RDG response could be taken to imply that a larger fund would be desirable.

Our response

4.125 We welcome stakeholders’ support for establishing a performance innovation fund. The fund will now be initially established at £40m for CP6. It will apply to both passenger and freight operations.

4.126 The purpose of the fund will be to support innovative projects that would otherwise not be pursued due to coordination/free rider problems, or because the benefits are too uncertain or distant. The fund would be used to test proposals and collect information about what worked, so as to support the potential wider roll-out of these proposals.

Governance of the fund

Summary of stakeholder views

4.127 There was general support for industry involvement in the governance of the fund. Network Rail said that governance arrangements should be proportionate to the scale of the fund.

4.128 DfT supported the idea of our considering offering greater flexibility over the regulatory regime to allow innovative proposals to be trialled. It suggested that the performance innovation fund should be available to facilitate this. No other stakeholders commented on this matter.

Our response

4.129 We will work with industry to develop appropriate and proportionate governance arrangements for the fund.

4.130 We look forward to the industry bringing forward ideas for new ways of working that could drive performance improvements, and we will work with parties to help unlock those benefits. We will be open to working with industry to provide regulatory comfort for new approaches which do not fit neatly within the existing framework.

4.131 This could include considering proposals to relax aspects of the regulatory regime on a trial basis, where a case can be made that this could lead to an improvement in performance. We would expect the trials to be designed in such a way that they could provide sufficiently robust evidence to inform our future decisions regarding the regulatory regime.

Network sustainability

4.132 In our draft determination we stated that Network Rail should report against a consistent route measure of network sustainability – the composite sustainability index (CSI). However, we recognised that this measure had limitations. As such we noted that we would take other factors into account in our assessment of Network Rail's delivery of sustainability and required it to provide an annual engineers' report (which would be produced by Network Rail's asset engineers) per route. We also required Network Rail to develop a new measure in CP6. We asked Network Rail to make targeted adjustments to its plans to improve the level of sustainability achieved in CP6 and beyond.

Summary of stakeholder views

4.133 Those who commented welcomed our requirement for a consistent route measure of network sustainability, and Network Rail's inclusion of this on route scorecards. DfT was concerned about the level of sustainability that Network Rail had put forward in its SBP, given the focus DfT had given this area in its HLOS.

4.134 Network Rail has proposed revised CSI figures following its targeted update to the SBP made during the summer (under which it reviewed what additional funding could be put into improving sustainability). In part, the revised figures reflected the further work to be delivered with the additional funding. But Network Rail also found that the way that it had calculated CSI in the February 2018 SBP may have underestimated the likely level of sustainability achieved in the longer term. This was because it had been based on current policies and had not taken account of expected future improvements in technology. It also noted that activity other than just renewals could affect the level of sustainability that could be achieved.

4.135 In its draft determination response Network Rail also made a number of observations and commitments in relation to its delivery and reporting of network sustainability:

- it agreed that sustainability will be monitored across a range of performance indicators;
- it will produce annual, route-level engineers report for each asset type;
- it will provide information to justify any change to the CP6 baseline trajectory for sustainability; and
- it noted that routes will be accountable for the delivery of the work plan and the associated network sustainability outcomes.

4.136 In its response, Arriva stated that it wanted the higher than expected asset condition (from the proposed additional investment in sustainability that was set out in the draft determination) to deliver improved performance outputs.

4.137 Regarding sustainability in Scotland, Network Rail noted that no further increase in funding was needed but it did identify issues with existing renewals schemes which had significantly increased in costs.

Our response

4.138 Network Rail has revised its plans for sustainability and provided revised targets for CSI. We have accepted these revised plans and targets.

4.139 We will continue to work with Network Rail to develop a new measure, and Network Rail has now provided a plan for this. We expect to review the approach to the regulatory minimum floor for sustainability as and when any new measure is implemented.

4.140 Regarding the schemes in Scotland, we address these in more detail in our Scotland summary document.

Regulatory minimum floors

Purpose of regulatory minimum floors

4.141 In our draft determination supplementary document on scorecards and requirements, we proposed to set regulatory minimum floors in four areas; CRM-P, national FDM, route level FDM-R and CSI. We said that:

- we would set regulatory minimum floors at a level to reflect the point below which we would be highly likely to formally investigate Network Rail for breach of its licence; and
- we may take action above this point under certain circumstances if we were concerned about serious or systemic issues.

Summary of stakeholder views

4.142 Network Rail considered that any investigation by ORR should focus on the circumstances that may have contributed to a decline in performance as opposed to investigating a possible licence breach.

4.143 Some stakeholders commented on the effectiveness of the regulatory minimum floor in driving delivery of performance.

- FirstGroup considered that setting a regulatory minimum floor was not an effective approach to ensuring that passengers experience good performance.
- Northern commented that regulatory minimum floors were not an adequate basis for instigating investigation into potential breach of Network Rail's network licence. Instead, it considered that ORR should intervene if Network Rail failed to deliver challenging improvement targets, as it said this would be a more powerful incentive.

4.144 Southeastern was supportive of the concept of regulatory minimum floors.

Our response

4.145 It is clear from some stakeholder responses that we have not sufficiently explained the purpose of the regulatory minimum floor.

4.146 The purpose of the regulatory minimum floor is to underpin measures and targets agreed by Network Rail and its customers.

4.147 Our CP6 framework consists of:

- consistent measures required by us for our monitoring;
- measures agreed between Network Rail and its customers; and
- regulatory minimum floors for CRM-P, FDM, FDM-R and CSI which underpin the consistent measures and the measures agreed between Network Rail and its customers.

4.148 We have set out more information on this in our final determination scorecards and requirements supplementary document. We will also continue to engage with stakeholders at appropriate industry forums (e.g. NTF) to explain our approach.

Level and methodology of regulatory minimum floors

Passenger performance – CRM-P

4.149 In our draft determination supplementary document on scorecards and requirements, we set out that the floor for passenger performance (CRM-P) should be set at a consistent margin below Network Rail's target for each year of CP6 (i.e. the floor reflects the trajectory). We also said that the size of this margin should reflect a performance level of 20% of average performance for CP4 and CP5. This differed from Network Rail's proposal that it should be at the level of 30% of CRM-P MAA in 2017-18 P10.

Summary of stakeholder views

4.150 Stakeholder comments focused on the impact that the level of the floor would have on performance:

- Southeastern did not consider that a floor set at a 30% level provided an incentive that was tight enough for Network Rail to deliver performance at least in-line with performance trajectories. It also suggested that the level at which the floor is set should be reviewed on a more frequent basis than every control period to ensure sufficient action could be taken in the event that performance is below expectations;
- Arriva was concerned that the level at which the regulatory minimum floor was set at would not be a sufficient incentive to drive performance for the funding available; and
- Abellio considered the deterioration of performance in recent years and questioned whether the floor should be set at a tighter level.

4.151 Network Rail commented that our proposal for the level of the regulatory minimum floor would:

- result in it being breached at levels of performance that were not the result of a systemic failure;
- it was too susceptible to natural variation e.g. due to weather;
- it would expose the routes to undue risk; and
- it would result in an inconsistent level of challenge between routes.

Our response

4.152 Having considered the comments from stakeholders we remain of the view that the floor should reflect the point below which we are highly likely to formally investigate Network Rail for breach of its licence (noting that we may choose to investigate above this level). This fits with our focus on comparative regulation of routes (and the SO), using the incentive of agreed performance targets on scorecards.

4.153 We reflected on comments regarding the inconsistency of challenge between routes (a feature of both ORR's and Network Rail's proposals). We have conducted further analysis and decided to make changes to the way in which the floor is calculated. Our revised decision is to set the regulatory minimum floor for performance based on:

- a consistent margin below forecast performance levels;
- a margin level of 20% for all routes; and
- the average forecast performance for each route – this is a change from our draft determination position.

4.154 We consider that this approach will ensure a consistent level of challenge across routes, against CRM-P CP6 baseline trajectories which Network Rail has confirmed offer a P50 level of modelling confidence (i.e. they are as likely to be achieved as not).

Regulatory minimum floor – freight performance (FDM and FDM-R)

4.155 In our draft determination supplementary document on scorecards and requirements, we proposed to set:

- the FDM regulatory minimum floor at 92.5%; and
- the FDM-R regulatory minimum floor at 30% more FDM-R failures than target.

4.156 We sought views on the conclusions we set out above.

Summary of stakeholder views

4.157 Network Rail welcomed our acceptance of its proposals to set the national FDM regulatory minimum floor at 92.5% and at a level that would represent 30% more delay for each geographic route including Scotland. We received no other responses relating to the regulatory minimum floors for FDM or FDM-R.

Our response

4.158 We confirm our position from the draft determination.

Regulatory minimum floor – CSI

4.159 In our draft determination supplementary document on scorecards and requirements, we proposed to set a regulatory minimum floor calculated at 90% of the CSI CP6 baseline trajectory.

Summary of stakeholder views

4.160 Network Rail welcomed our decision on the regulatory minimum floor for CSI. We received no further specific comments relating to the regulatory minimum floor for CSI.

Our response

4.161 We will retain our approach to the regulatory minimum floor methodology as set out in our draft determination, although the values will be recalculated to reflect the revised CSI values as discussed in the network sustainability section above.

5. Health and safety

Overview

This chapter provides a summary of the points raised by stakeholders on our assessment of the health and safety issues in Network Rail's strategic business plans (SBPs) and our expectations regarding health and safety management. These were set out in chapter 6 of our draft determination overview and our supplementary document on health and safety.

Overall health and safety approach

5.1 A number of respondents expressed support for the overall approach taken in the draft determination on health and safety issues and the challenges we set Network Rail to move proposed areas of optional spend into core spend.

Our response

5.2 We note and welcome the support for our overall approach.

Asset safety

Risk reduction funds for level crossings

5.3 Two respondents expressed concern that, unlike for CP4 and CP5, there would be no ring fenced funding and no Fatality and Weighted Injury (FWI) target for level crossing risk reduction (the FWI index is the common way of measuring harm to people on Britain's mainline railways). Although Network Rail's strategy on level crossings had been rewritten to reflect this position and to provide a clear steer on what routes were expected to deliver, these respondents thought that the mechanism of a risk reduction fund provided the best channel to secure its delivery.

Our response

5.4 The CP4 and CP5 level crossing risk reduction funds went beyond legal requirements in funding or accelerating solutions that might not have passed the test of reasonable practicability. There are no such funds for CP6. However, in our draft determination – having reviewed and queried their route plans – we challenged two routes (LNW and Wales) to move some level crossing 'optional' spend into core spend, as we considered the proposals to be reasonably practicable[11] . We stated that we considered that a further £25m should be spent in LNW and a further £8m in Wales.

[11] The 'reasonably practicable' concept is discussed in paragraph 1.3 of our draft determination supplementary document on health and safety.

5.5 Further to this, we were concerned that the rewriting of Network Rail's strategy on level crossings had removed some of the stretching targets for routes to achieve improvements at passive crossings and those with the least reliable methods of warning crossing users. The development of value for money solutions at such crossings had made some technical improvements reasonably practicable and that there should be a targeted application of them. We suggested that £25m should be funded to upgrade the highest priority user worked crossings (UWCs) with overlay warning systems, instead of relying on telephones.

5.6 Network Rail has agreed with our challenges relating to level crossings, resulting in it moving £58m above into core spend. Also, as part of our wider challenge for Network Rail to consider additional renewals for increased asset sustainability, some routes have included improvements at level crossings. For example, Western route has allocated an additional £10m for crossing interventions (as well as its share of the spend on upgrading to overlay warning systems at UWCs).

Asset sustainability

5.7 One respondent urged Network Rail to target its additional £1bn expenditure on CP6 renewals to mitigate safety risk posed by the ageing asset base, as well as improving asset sustainability and reliability.

5.8 Another respondent followed up on our comments in our draft determination around effective asset management being key to controlling many of the precursors to catastrophic risk on infrastructure. The respondent stated that our analysis of the position in relation to maintenance and renewals indicated that there was 'variability and immaturity' in a number of systems and approaches for managing assets and interpreted this as evidence that Network Rail did not have adequate systems in place to manage catastrophic risk at those assets. The respondent suggested this required immediate regulatory attention.

Our response

5.9 Network Rail has described to us how it has targeted its constrained funding at those assets prioritised by risk, so that renewal brings the greatest risk control benefit. The variability and immaturity referred to above relate to implementation of processes, rather than the quality of the processes being inadequate. Network Rail can demonstrate that its procedures have led to historically the best ever control of precursors to catastrophic risk. However, our RM3 findings show that those controls could be implemented more reliably, consistently and predictably. Our inspection and enforcement activity has been focused on increasing Network Rail's management maturity.

Trespass and fatality risk and electrical safety in depots

5.10 One respondent considered that additional funding for their route was required for trespass and fatalities in order to address the issues they were facing in this area and noted that the safety constraints across the depot and sidings estate within their route were significant. The respondent asked us to assess the funding allocated to Network Rail in these areas to ensure it was sufficient and aligned with the requirements within the franchise.

Our response

5.11 It is for Network Rail to decide the relative priority of competing demands for available funds and we will be monitoring all routes to ensure that they give effect to all reasonably practicable preventative and mitigating measures for trespass risk. Where routes would like to spend more there are appropriate forums for concerns to be raised.

5.12 On depot electrical safety, Network Rail has determined that the funding specified is sufficient. We will be monitoring compliance and have the option to enforce where we consider that there are deficiencies that could be addressed through reasonably practicable measures.

Workforce safety

5.13 There was support for the focus in our draft determination on the safety of staff through the provision of committed (rather than optional) funding for improvements in certain areas, such as providing level walkways in good condition within depots, suggested this approach should be extended to include improvements to other parts of the network such as lineside walkways and signal post telephone bases.

5.14 Another queried whether the ‘banning’ of red zone working (i.e. a site of work on or near a line where trains are still running) in Scotland was cost effective.

Our response

5.15 Network Rail accepted our draft determination challenge and moved £22m in the FNPO route plan from optional to core spend to cover safety improvements to depot walkways. Potential spend on other parts, such as those suggested above, is subject to the safety investment decisions Network Rail makes as part of its business as usual processes, in line with considerations of legal compliance, risk priorities and reasonable practicability. We would encourage operators to use their engagement and scorecard discussions with Network Rail as a forum to raise such issues.

5.16 There is no ‘prohibition’ on red zone working in Scotland. All routes have the same decision making hierarchy, where reliance on warning staff by unassisted lookouts is the last option. It is the case that the characteristics of much of the Scotland route network make it easier to find opportunities to work green zone (an area of protection for workers which separates work on the railway line from train movements).

Monitoring effective delivery and our regulatory approach

Accountability of the routes for risk control

5.17 A few respondents commented on the accountability of the routes for health and safety and our proposed regulatory approach to monitoring. These consultees considered that it was crucial that, although Network Rail centrally remained the duty holder for legal safety obligations, the ownership and accountability for safety was fully adopted by the routes with devolution. Adherence to consistent standards and approaches with strong guidance from Network Rail, including in relation to what would comprise 'so far as reasonably practicable' when evaluating and mitigating safety risks, were seen as key.

5.18 One respondent specifically queried why we were regulating economically at a route level but did not do the same in relation to health and safety and questioned how much the routes were held accountable for health and safety by Network Rail centre.

Our response

5.19 Network Rail remains one legal entity, with one safety authorisation under the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) and one safety management system (SMS). Its submission describes how its STE directorate, as the technical and safety authority, will hold routes to account for complying with the SMS, relevant standards and legal requirements. In the event of any breach we can consider enforcement in line with our enforcement policy.

5.20 Our routine monitoring of Network Rail's health and safety during CP6 will include the checking of progress against workstreams in the Home Safe Plan (a series of ongoing projects which target reduction of risk in key safety areas to which each route has committed itself in its plan to fulfil the demands of the programme) and Network Rail's programme to reduce precursors to potentially high risk train accidents. ORR monitors a wide range of performance indicators outside the scorecard regime that test the effectiveness of the routes and Network Rail centre in delivering risk control.

Health and safety competence in the routes

5.21 One respondent reflected that, although the assurance provided by STE had been positive, an apparent over-reliance on this assurance indicated a possible lack of understanding or competence within the routes about safety decision making and the control of risk. The respondent queried whether route managers could competently initiate and sustain health and safety improvements.

Our response

5.22 We also have concerns that not all parts of Network Rail share the understanding, skills and competence of STE safety professionals when it comes to decision making. That is why our main efforts over the last two years have been devoted to securing strengthened assurance in the routes (as opposed to STE) from front line supervisors to route managing directors. We would note that progress is slow, but discernible, and that such cultural change is always a challenging, long-term undertaking.

Interfaces between Network Rail and other operators

5.23 One respondent thought that the draft determination was too focused on routes and did not consider how third parties would be taken into consideration, particularly in relation to the safety of third party operations that interface with Network Rail's infrastructure (where Network Rail had the responsibility for that infrastructure). They considered that failure to provide adequate provision might have a significant impact on third parties but had a lower priority within the routes.

Our response

5.24 The respondent raises valid concerns about the interface between third parties and Network Rail infrastructure. There are legal duties of cooperation within the ROGS regulations, and these are reflected in Network Rail's SMS. The final determination funds Network Rail to fulfil all its health and safety statutory obligations, but that does not mean these have been exhaustively described in the SBP. Monitoring of the effectiveness of system safety interface arrangements is part of our routine work.

Health and safety measures on scorecards

5.25 In our draft determination supplementary document on scorecards and requirements, we included our proposed decisions in relation to the health and safety measures on scorecards.

5.26 One respondent noted that the health and safety measures on the scorecards were relatively under-developed compared to the economic measures. In particular, they questioned how we would monitor: any potential negative impacts on health and safety arising from a 'reputational rivalry' approach to monitoring; that the challenging targets for Lost Time Injury Frequency Rates do not lead to under reporting; that due emphasis is given to safety critical issues in scheduling backlogs of deferrals and enhancements; and that appropriate emphasis is given to securing safety by design in all new projects.

Our response

5.27 We think that the respondent has identified areas worthy of further scrutiny and we are aware of the importance of these issues. The scorecards are a very small part of the range of information available to us to judge Network Rail's health and safety performance. We also meet Network Rail regularly at a wide variety of forums from maintenance delivery unit level to national liaison meetings where these and related topics are discussed and where staff and management can be held to account.

Other metrics

5.28 One respondent thought that, given the importance of asset sustainability and the link between asset condition and asset safety, clear metrics and targets should be established to monitor delivery in this area. Another thought that a metric for system safety should be determined to demonstrate whether it was improving or worsening.

Our response

5.29 A metric for system safety was considered earlier during PR18 in discussions with both the System Operator and the Route Services directorate but no straightforward means to measure this could be determined. We remain open to developing such a metric.

Other matters

5.30 A few respondents made a number of general comments around, for example, safety leadership and culture, outsourcing, change management, retrospective compliance with standards, safety by design, and vegetation management resulting in greater biodiversity. These were noted but were considered not specific to the determination (or concerned health and safety decisions in relation to enhancements which are outside of the scope of PR18). One respondent commented on barrier down times at a particular level crossing.

Our response

5.31 We will take any opportunity to discuss these issues with the relevant respondents directly. In response to the enhancements comment we would stress the role of the System Operator in taking system safety into account when evaluating project proposals and on outsourcing would note that there is no reason that safety would be diminished provided it is robustly managed by Network Rail and the successful bidder.

6. Review of Network Rail's proposed costs

Overview

This chapter provides a summary of the points raised by stakeholders on our assessment of the proposed costs that Network Rail included in its SBPs. Our assessment and proposed decisions were set out in Chapter 7 of our draft determination overview and in our supplementary document 'Review of Network Rail's proposed costs'[12]. In particular, these covered our consideration of:

- maintenance and renewals costs (including delivery planning);
- operations costs;
- support and other costs;
- Digital Railway in the SBP; and
- route efficiency plans.

Responses relating to these subjects are discussed in this chapter. Our draft determination proposed a significant reduction in our funding of Network Rail's research and development (R&D). This prompted a high level of response and we have therefore included consideration of R&D in this chapter.

Asset sustainability

Draft determination

6.1 We reviewed Network Rail's asset management planning as set out within the SBPs. We concluded that, whilst a reasonable approach had been adopted for determining workbanks, the longer-term forecasts presented in the SBPs showed continued deterioration and so were unacceptable. This deterioration would mean that assets become less reliable over time and require greater interventions to address both safety and performance concerns unless the deterioration is addressed in the short term.

6.2 We concluded that Network Rail should:

- develop in consultation with routes and external stakeholders, a better methodology for any subsequent allocation of funds between routes;

[12] 2018 Periodic review draft determination - Supplementary document - review of Network Rail's proposed costs, ORR, June 2018. This may be accessed here.

- revisit its planned asset renewals volumes in CP6. Our high-level estimate concluded that approximately 11% of work activity (by volume) would need to be added to renewals plans to bring about a steady state level of sustainability relative to the end of CP5. We estimated the cost of this at circa £2bn with the majority of this focused on England & Wales. We regarded circa £1bn as the minimum acceptable increase in renewals based on the information presented to us. Funding of the balance of our estimate was considered to be contingent on Network Rail making further efficiency savings and / or being able to release contingency as a result of good risk management;
- focus any additional expenditure in the higher priority areas of: earthworks; track, drainage, and metallic structures, ensuring that the additional work does not adversely affect the expected levels of safety and train service performance;
- address the concern that a number of routes proposed work volumes for CP6 that were below Network Rail STE's minimum assurance activity guidelines. These being:
  - £86m track in Wessex;
  - £65m earthworks in LNW;
  - £30m earthworks in LNE&EM;
  - £20m earthworks in Wales; and
  - £4m drainage in Anglia;
- revisit the route scorecard targets for reducing the number of Service Affecting Failures (SAF) in the Anglia, LNW, South East and Wessex routes to confirm they have been set at a sufficiently challenging level;
- revisit the route scorecard targets for increasing the Composite Reliability Index (CRI) in the Anglia, South East and Wessex routes to determine if they have been set at a sufficiently challenging level;
- maintain its focus on achieving A2 data quality across all business critical asset data. This should incorporate the new Minimum Asset Data Requirements (MADR) that have been defined to establish a process for the Exchange of Asset Information (EAI) to keep asset data up to date; and
- ensure that focus on the governance processes introduced in the Asset Data Governance project is maintained, and that procedures such as the National Community of Practice, route-level data communities, and the action plans developed to date are implemented throughout CP6 in order to promote best practice in the area of asset data management.

Consultation responses

Industry stakeholders

6.3 Of those that responded to our consultation noting that additional renewals activities were required, none proposed an alternative approach.

6.4 In addition to Network Rail's wider corporate response (discussed below), each route also provided a response. All were supportive of additional funding for renewals. However they also identified that gaps would remain between what they considered necessary to prevent long term deterioration of asset sustainability and what they could afford in CP6.

6.5 Southeastern and Nexus expressed disappointment that additional 'vision schemes' included within the route plans and other enhancements were not fully funded in the draft determination. Enhancement funding is, however, outside the scope of the PR18 periodic review.

6.6 Arriva said that they would expect to see a flow-through from higher expected levels of asset condition to train performance.

6.7 RDG and a number of operators, whilst welcoming the additional sustainability spend, were concerned that the ORR was being too prescriptive in instructing Network Rail where this should be targeted.

Network Rail

6.8 Network Rail agreed with our concern that renewals expenditure in the SBP did not appear to be sufficient to maintain asset sustainability in England & Wales. This concern was informed by: asset 'deep dives' undertaken by the ORR; assurance reviews carried out by Network Rail's STE team; and associated long-term modelling of renewals expenditure and asset sustainability.

6.9 Network Rail agreed that its long-term models suggest the CP6 renewals expenditure in the SBPs is around £2bn less than the long-term average requirement for subsequent control periods. However, it highlighted that these models cannot produce precise forecasts of future renewals or asset condition.

6.10 Network Rail nevertheless agreed that there should be additional investment in asset sustainability. In July 2018, it provided ORR with early sight of potential projects that would be delivered if funding of around £1bn were to be available as proposed in the draft determination.

6.11 Network Rail did some further work and put forward an alternative proposal for the additional investment to total £608m (of which £538m related to England and Wales). The justification for a reduced increase was that separately funded enhancements and circa £188m of anticipated reactive interventions on earthworks (funded from the central Group Portfolio Fund), were likely to equate to an additional £438m of renewals in CP6.

6.12 This £608m proposal was also informed by Network Rail's review of its long-term modelling of renewals expenditure. Network Rail concluded that its long-term modelling that supported the SBP underestimated future asset condition because they are static (i.e. based on the application of today's policies and technologies). In addition they do not automatically take into account efficiency improvements and asset management benefits arising from ongoing R&D investment and other continuous improvement initiatives. Specifically:

- asset policies are being updated in light of better asset knowledge and understanding. A number of recent changes to the track and earthwork policies had not been fully reflected within the model;
- Network Rail estimates that, subject to sufficient investment in R&D during CP6 together with deployment of its Intelligent Infrastructure programme and continuous improvement in asset management, these initiatives will deliver benefits equivalent to £1.8bn over the subsequent 15 years;
- the models do not include the full effect of CP6 efficiencies or any efficiencies beyond CP6. They have now assumed additional efficiencies of £300 million in subsequent control periods; and
- removal of signalling from the long-term core calculation as any large scale renewals are unlikely to be on a like-for-like basis as advanced technology is introduced.

6.13 Network Rail's rationale for excluding signalling renewals is that there will be a significant bow wave of renewals in the next few control periods as signalling systems become life expired. Renewing on a like-for-like basis will require additional funding and present significant deliverability challenges. Network Rail is therefore developing its plans and seeking to reduce significantly the cost of newer technology.

6.14 Network Rail stated that, despite expending significant effort in developing the models, these still have wide 'confidence ranges'. It considers that improved asset management practices are likely to have positively impacted on measured historical rates of change, although it has yet to capture the full benefit of this through resurvey of the relevant assets.

6.15 It is Network Rail's judgement that the confidence limits in the model are asymmetric providing a marginally cautious forecast.

6.16 While there is considerable uncertainty about forecasting efficiency and benefits from R&D beyond CP6, Network Rail stated that its estimates of savings beyond CP7 were conservative in terms of the rates at which the benefits will accrue.

6.17 Network Rail also argued that it has made significant improvements in its asset management capability, which has been independently measured using the Asset Management Excellence Model (AMEM)[13]. This can be expected to increase confidence in the realisation of further benefits from the R&D programme, so delivering sustainability benefits in the long-run.

6.18 Network Rail concludes that the factors discussed above reduce the average long-run renewals requirement for its core assets (excluding signalling) from £12.4bn to £10.9bn per control period.

6.19 In our draft determination in June 2018[14], we set out our view of how the additional funds might be allocated across the routes. In our allocation methodology we sought to estimate the approximate magnitude of the additional expenditure that would be required to stabilise asset condition, as measured by the Composite Sustainability Index (CSI).

6.20 Network Rail allocated the additional sustainability funds in two steps:

- first it allocated the £212m estimated cost of resolving the areas of priority identified previously by the STE assurance review – updated with any new information; and
- secondly, it allocated the balance of the additional funding using the principles established during preparation of the SBP but with the train performance/traffic growth component excluded.

6.21 The directors of route safety & asset management for each of the routes reviewed the methodology and confirmed the final allocation.

6.22 This has resulted in a divergence from our suggested allocation in the draft determination and that used by Network Rail as shown in Table 6.1 below.

[13] CP6 SBP AMEM Assessment version 1.0, Asset Management Consulting Ltd, 12 April 2018. This may be accessed here.

[14] See Table 2.11 of 2018 Periodic review draft determination - Supplementary document - review of Network Rail's proposed costs, ORR, June 2018. This may be accessed here.

Table 6.1: Comparison of additional asset sustainability funding allocation

Route	CP6 Renewals budget £m SBP Feb 2018 £m*	Draft determination guidance based on c.£2bn £m	July 2018 Network Rail draft allocation to routes based on circa £1bn £m	Aug 2018 Network Rail allocation to routes based on £608m £m
Anglia	1,583	250*	78	37
LNE&EM	3,180	441	226	123
LNW	2,735	645	222	136
Scotland	1,817	67	-	70**
South East	2,132	275	145	66
Wales	834	78	67	44
Wessex	1,268	233	87	83
Western	1,465	74	110	50
Total	**£15,073m**	**£2,063m**	**£935m**	**£608m[15] (£538m for E&W)**

Source: ORR original estimate based on Network Rail data.

Notes
*A May 2018 amendment to Anglia CSI to remove assets leased to Greater Anglia was not disaggregated in the draft determination. We anticipate that disaggregation would have made a change of c-£200m for Anglia. This was taken into account in our draft determination.
**For August 2018 Network Rail identified £70m of new items: £50m for Carstairs junction and £20m for structures.

6.23 Network Rail confirmed that all key priority areas have been addressed in the revised route renewals programmes to a level satisfactory to STE. In particular, it confirmed that it had focused on the areas highlighted by the ORR (earthworks; track, drainage, and metallic structures).

6.24 In June 2018[16], we set out the expected change in CSI by route at the end of CP6 relative to the end of CP4 based on the SBP. Table 6.2 below shows the predicted change in CSI as a result of the additional sustainability funding shown above in comparison with the SBPs and the draft determination.

Table 6.2: Anticipated change in CSI based on additional asset sustainability funding

Route	SBP End CP5	SBP End CP6	Draft determination impact £1bn End CP6	Network Rail response impact £608 End CP6
Anglia	-1.5%	-1.8%	-1.4%	-1.8%
LNE&EM	+0.4%	-2.0%	-1.3%	-1.6%
LNW	+0.2%	-3.6%	-3.2%	-3.5%
Scotland	+3.0%	+2.3%	+2.5%	+2.3%
South East	-2.0%	-4.3%	-3.2%	-3.9%
Wales	+0.3%	-1.5%	-0.6%	-0.9%
Wessex	-2.3%	-5.4%	-4.6%	-4.8%
Western	+2.3%	+1.3%	+2.0%	+1.6%
National	**+0.3%**	**-1.9%**	**-1.3%**	**-1.6%**

[15] Of the £70m additional renewals in Scotland, £50m is for a cost increase on the Carstairs project, [which has no effect on sustainability].

[16] See Table 2.9 of 2018 Periodic review draft determination - Supplementary document - review of Network Rail's proposed costs, ORR, June 2018. This may be accessed here.

Our response

Industry stakeholders

6.25 We asked Network Rail to quantify the train service performance benefits associated with additional asset sustainability expenditure. In the time available to respond to the draft determination, it was not able to provide a comprehensive forecast of these benefits. Nevertheless, we expect to see performance benefits from improved asset condition flowing into the CRI and SAF measures over time.

6.26 With regard to the targeting of the additional expenditure, in our supplementary guidance to Network Rail we sought to strike a balance between highlighting what we saw as the key priority asset areas for additional investment and allowing Network Rail the freedom to make the final decision on the methodology used to allocate funding across and within the routes. This was reflected by routes taking the opportunity to put forward items that might have safety, staff welfare or reliability benefits in addition to those targeted purely on asset sustainability.

Network Rail

6.27 We have taken assurance from STE's confirmation that key priority areas have been addressed in the revised route renewals programmes and we do not propose to provide any further direction on this. We will however review the routes' delivery plans to ensure these additional items are incorporated.

6.28 Notwithstanding our previously stated concerns about Network Rail's funding allocation methodology, we are encouraged that the directors of route safety & asset management reviewed the methodology and confirmed the allocation of additional funds.

6.29 Routes restated the case for funding their 'vision schemes' as included in Appendix D of the route strategic plans (RSPs). Given that there has been no change in the overall funding available, we do not intend to reopen the decisions which Network Rail took about the prioritising of these schemes at the time of preparing the SBP.

6.30 In the draft determination we agreed that there has been noticeable improvement in asset management practices by Network Rail as measured using the Asset Management Excellence Model approach. This is likely to have had a positive impact on rates of asset deterioration as Network Rail is better placed to make evidence based decisions about intervention levels and frequencies.

6.31 We consider that there is a case for separating short-term asset performance targets in CP6 based on CSI, from the longer-term strategic consideration of asset sustainability in CP7 and beyond. We have therefore taken a more holistic approach to the benefits of future enhancements, reactive renewals, R&D and efficiencies in reaching our overall conclusion. Any programme of additional renewals supported by ‘contingent asset management funding’ will also contribute to long-term asset sustainability.

6.32 We acknowledged in our draft determination that the methodology for calculating CSI had a number of shortcomings and that we needed to work with Network Rail to develop a new methodology. This is further discussed under our response to our consultation on scorecards[17].

6.33 We agree that as the asset sustainability models are still relatively new in the context of overall asset lives, further calibration and development of the models is required by Network Rail.

6.34 We agree that additional CSI benefits can be expected to accrue from enhancements and reactive works in CP6, although these cannot be quantified at route level in advance due to uncertainty around detailed scope, the impact on already planned renewals, locations and timing. The circa £188m of anticipated reactive earthworks can also be expected to have a positive impact on CSI but only if funded from the one of the risk funds as opposed to the core budget. If contingency funding were not available then funds would need to be redirected from planned renewals leading to a loss of other predicted CSI benefits.

6.35 We agree with Network Rail’s rationale for excluding signalling renewals from the assessment of longer-term modelling of renewals. However it is very important that a long-term signalling strategy is developed to address the potential bow-wave of renewals as current systems reach the end of their economic lives and/or become obsolete. DfT has requested Network Rail to produce a Digital Railway implementation strategy and we expect this to inform longer term plans to manage maintenance, renewals and enhancement of signalling assets across all routes in England, Wales and Scotland.

6.36 We agree that changes in track and earthworks policies will have an impact by reducing the longer-term requirement for renewals. For the purposes of assessing the end of CP6 CSI forecast, we agree with Network Rail that the impact of policy changes would be marginal as routes have already planned their workload around the highest priority work locations. For CP7 and beyond, we expect this factor to have a more material impact.

6.37 We agree that R&D can be expected to have a positive impact on the long-term requirement for renewals. We are however unable to fully validate Network Rail’s suggestion that this would equate to an additional 0.65% CSI improvement per additional £1bn spend. Rather than make an arbitrary adjustment to Network Rail’s

[17] See Chapter 4 of this document.

modelling we propose to monitor this matter in CP6 to see if any early accrued benefits match the estimated trajectory.

6.38 Notwithstanding the significant work that Network Rail has undertaken on the models, the CSI forecasts that they generate are subject to ‘confidence ranges’ which are not readily determinable. This is why we have required that work to develop improved measures of asset sustainability should be undertaken in CP6. Our experience to date confirms Network Rail’s view that the confidence ranges are to be asymmetric leading to forecasts which are marginally on the cautious side.

6.39 Taking account of all the above factors, we have determined that an additional £608m of asset renewals should take place in CP6 and that this can be expected to provide an acceptable increase in the outturn asset sustainability position. This represents the minimum level of planned additional expenditure and our conclusion is based on the expectation that enhancements and additional renewals supported by ‘contingent asset management funding’ will further improve asset condition.

6.40 In the longer term, it is important that improvements in the measurement and modelling of asset condition are delivered in CP6 and that these, together with a long-term signalling strategy, are used to inform planning for CP7 and beyond.

Use of efficiency savings and / or unused contingency for additional asset renewals

Draft determination

6.41 In the draft determination we set out our view that approximately £2bn of additional renewals work would be needed to maintain asset sustainability at the level which is expected at the end of CP5. We described our view of the minimum additional expenditure needed and the response to this is discussed above.

6.42 We also proposed that a proportion of the Group Portfolio Fund (Network Rail’s central contingency) should be reallocated to the routes and assigned to ‘contingent renewals’ which would improve asset condition and sustainability in the event that the funding was not required for other matters arising.

6.43 Further, we suggested that any additional savings arising from Network Rail’s efficiency programme or its overall management of risk could be used for additional renewals to improve asset sustainability.

Consultation responses

6.44 DfT set out its view that, where additional efficiencies are identified, the funds released should be predominantly allocated to the improvement of asset condition, asset sustainability and train service performance. This would align with key objectives identified in the Secretary of State's HLOS and it would wish to "see better trajectories for these vital outputs than were identified in the Strategic Business Plans".

6.45 DfT also agreed with the principle of 'contingent renewals'. Transport Scotland did not however support this approach and expressed concern about the effect on train performance and resilience of such an approach if planned renewals were subsequently deferred.

6.46 Network Rail proposed that income arising from the Crossrail supplemental track access charge (which was not taken into account in the SBPs) could be used to support other national schemes. DfT indicated that there may be other calls on this source of funding and so it should only be used to support planning of 'contingent renewals' at this stage.

Our response

6.47 As discussed earlier, we have agreed with Network Rail's arguments to reduce the minimum additional asset sustainability expenditure in CP6 to £608m. This will also reduce the amount of additional expenditure which would be necessary to maintain asset sustainability at CP5 exit levels. However, the point remains that Network Rail should seek to further improve the position if additional funds become available within the overall settlement. We accept that Network Rail has to balance this against other aspects of delivery.

6.48 In line with our draft determination, we therefore require Network Rail to seek opportunities to improve this position and this should include planning of additional renewals which could be supported by 'contingent asset management funding' so that any additional funding released by better than expected levels of efficiency or from unused risk funding can be deployed to best effect without delay.

6.49 We would expect that further efficiency savings and any unused parts of the centrally managed risk funding should be used to support improvements to asset sustainability, train service performance or other business needs based on Network Rail's own prioritisation processes.

6.50 If contingent asset management funding becomes available for additional renewals, we would like to see greater transparency around the process used to allocate these between and within routes so that investment is targeted at the areas of greatest need. This is consistent with our requirement that Network Rail should develop a better method of allocating funds between routes. Network Rail should seek stakeholder views when developing this process.

6.51 This process to improve the allocation of funds needs to be in place towards the start of CP6, so that it can be applied to future updates of business plans during CP6.

6.52 For England & Wales, we maintain our view that where contingent asset management funding becomes available, Network Rail should use 'contingent renewals' as a tool to ensure that such funds can be deployed to improve asset condition without undue delay. We expect that such schemes would generally comprise work brought forward from CP7 and so any subsequent deferral would delay the longer-term improvement in asset sustainability without creating significant adverse impacts within CP6.

Remote condition monitoring and earthworks

Draft determination

6.53 The draft determination drew attention to concerns about the level of earthworks renewals in certain routes raised by STE's assurance work on the SBPs. We required this to be addressed by an increased level of renewals given our concerns about asset sustainability. The role of remote condition monitoring in managing the risks associated with earthworks failure was discussed in our supplementary document on health & safety[18].

Consultation responses

6.54 TSSA considered that whilst an increased use of remote monitoring against potential landslips was welcomed, this issue is a result of Network Rail not addressing the root causes of such incidents. TSSA supported the use of efficiency savings to tackle these issues.

Our response

6.55 We agree that earthworks have not had the level of renewals they required in previous control periods in order to be sustainable over the longer-term. In our review of the SBPs we identified that expenditure on earthworks was planned to be broadly the same in CP6 as in CP5. In our draft determination we required that Network Rail should prioritise earthworks along with drainage, metallic structures and track for additional asset sustainability investment in CP6 funded from an increase in overall efficiency and a reduction in R&D expenditure. This is confirmed in our final determination.

Service Affecting Failures and Composite Reliability Index improvement targets

Draft determination

6.56 In the draft determination, we set an expectation that routes would revisit their scorecard targets for SAFs and Composite Reliability Index (CRI) where the targets

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[18] *Supplementary document – health & safety*, ORR, June 2018. This may be accessed here.

were classified as 'red' or 'amber' in STE's assessment of the level of challenge set. The affected routes were:

- SAF – Anglia, South East, LNW and Wessex.
- CRI – Anglia, South East and Wessex.

Consultation responses

6.57 Network Rail asked the Anglia, LNW, South East and Wessex routes to review their SAF and CRI trajectories. The review considered (among other things) route-specific factors, such as the impact of additional traffic and new rolling stock, and potential benefits from improvements to prevent asset failure. These routes concluded that their trajectories remained realistic, while also challenging. They did not propose that there should be any changes.

Our response

6.58 Both SAF and CRI are targets which are set by Network Rail on the routes' scorecards for CP6. We have therefore decided to accept their justification on these points. However we will review performance in this area and undertake benchmarking activities across routes during CP6. If it becomes apparent that the targets are not sufficiently challenging then we will re-open our dialogue at route level.

Incremental improvements to the network

Draft determination

6.59 The HLOSs and SoFAs are based on Network Rail maintaining and renewing assets on a broadly like-for-like basis (after taking account of factors such as changing standards and obsolescence). Enhancements are funded separately and are not within the scope of the periodic review.

Consultation responses

6.60 RDG, West Midlands Rail Executive and a number of train operators drew attention to opportunities for Network Rail to include incremental upgrades in renewals projects in order to secure improved capacity or performance at marginal cost. (These items are sometimes referred to as 'renewals plus'). Respondents were concerned that the separation of funding for enhancements coupled with a focus on the efficiency of renewals could prevent these improvements from being made.

Our response

6.61 It is not our intention that where opportunities arise for capacity upgrades that they should not be exploited, however they must be clearly delineated from the planned core work. The effects of altering the scope and cost of renewals is discussed in our conclusion document on how we will assess Network Rail's efficiency and financial performance in CP6[19]. Network Rail will need to develop a mechanism to report any changes to the scope or cost of renewals, to ensure that efficiencies are reported clearly and accurately. We will continue to engage with Network Rail in the lead up to the start of CP6 to agree a mechanism which provides sufficient transparency of efficiencies and does not distort decisions about the realisation of incremental improvements.

6.62 Where such incremental upgrades are undertaken, we expect relevant stakeholders to have been consulted and there to be a positive business case for the extra expenditure.

Delivery planning

Draft determination

6.63 In the draft determination we reviewed Network Rail's deliverability assessment for its maintenance and renewal plans for CP6. We concluded that Network Rail needs to:

- take action to manage a risk to the delivery of signalling renewals in years 3 and year 4 of CP6, when the volume profile peaks;
- complete further assurance that critical resources and access will be available across the whole control period, rather than relying on the current short term outlook for assessments;
- consider the impact on the base plan when planning and approving enhancements; and
- achieve a smoother profile across control period boundaries.

6.64 The draft determination also required a significant increase in renewals in order to address concerns about asset sustainability. The level of these renewals is discussed above and their deliverability is considered in this section.

Consultation responses

Changes to CP6 cost profile

6.65 Several Network Rail routes made changes to their renewal cost profiles in their responses to our draft determination. Most of these changes are within five percent of the previous iteration of the plan.

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[19] Our approach to assessing Network Rail's efficiency and wider financial performance in CP6 – conclusions, ORR, 12 June 2018. This may be accessed here.

6.66 LNE&EM route has brought forward work to the first year of CP6. However, most other routes have pushed back work to be delivered later in the CP6, such as Wessex which is planning to spend an additional 28% in year five, moving this work from earlier in its plan. Network Rail's response indicates that it has updated the overall annual spend profile for renewals, moving £177m from the first three years of CP6 into years four and five. However the response did not include details of the specific work packages which will be re-phased and we are expecting Network Rail's routes to provide details in the delivery plans (after we publish our final determination).

6.67 TfL, ASLEF and RIA commented on the importance of a smoother expenditure profile, to allow the supply chain to invest-in and manage their resources effectively. Network Rail and ASLEF also flagged a risk to efficient delivery arising from uncertainty in the pipeline approach to enhancements and the impact of HS2. Limitations on Network Rail's ability to move planned expenditure between years, were also identified as a risk to the supply chain, by RIA and Arriva who felt that this could limit Network Rail's ability to re-schedule projects so as to smooth the transition between control periods and better manage supply chain capacity.

6.68 Northern made a similar point and considered it critical that Network Rail adopt longer term workbank planning horizons which would extend beyond CP6.

Additional renewal schemes to improve asset sustainability

6.69 Network Rail raised a concern that the additional works related to asset sustainability will put increased pressure on the supply chain and its internal resources. In particular, the Anglia route highlighted a higher level of delivery risk as these schemes had not been developed to the same maturity as other elements of its SBP submission. However, other routes stated that they are confident these schemes can be delivered. Western and Wessex routes said that these schemes were included in previous iterations of their plans and Wessex commented that the phasing of these works towards the end of CP6 reduces delivery risk.

Readiness for CP6 and monitoring delivery

6.70 DfT considered that our bottom-up approach to our review of the SBPs means ORR's assessment of deliverability is more evidence-based and informed by customer concerns than for previous Periodic Reviews.

6.71 Both DfT and DB Cargo commented that a slow start to the CP5 renewals plan impacted on delivery across the control period. They stressed the importance of Network Rail making a good start to CP6 and of ORR increasing its monitoring in this area.

6.72 Network Rail's main response stated it had developed a set of leading indicators to assess readiness for the start of CP6. With the exception of Anglia and LNW, all routes have included at least a brief statement on how they are ensuring they can deliver from day one of CP6. Some routes described more detailed initiatives, for example:

- several routes have set up mobilisation programmes with management offices, governance structure and reporting in place; and
- the Scotland route has accelerated the recruitment of over 100 maintenance posts for CP6.

6.73 Several stakeholders also called for us to complete more intensive monitoring of Network Rail's delivery in CP6. RIA proposed that ORR should keep oversight of how Network Rail is taking responsibility for delivery of the overall renewals programme and ASLEF called for comprehensive monitoring and evaluation of plans to identify early signs of problems.

Our response

Changes to CP6 cost profile

6.74 We do not think that the changes Network Rail made to its expenditure profile significantly change delivery risk and, therefore, we have not changed our conclusions about this.

6.75 We acknowledge the importance of a smooth profile to the supply chain. We note that the impact of the re-profiling and inclusion of additional asset sustainability related renewals will smooth expenditure in the later years of CP6 but we consider that more should be done as Network Rail develops its delivery plans. In particular, we recommended in our draft determination that Network Rail should further review its signalling plans.

6.76 We made a recommendation that the process for approval of enhancements should consider the impact on Network Rail's maintenance and renewals programme, and note that this is endorsed by the responses received.

6.77 We recognise the benefits of long term planning and note that Network Rail's rolling planning process will maintain a five-year forward view. We share concerns about the effect on the supply chain of fluctuations in workload and will continue to engage with Network Rail to minimise these within the constraints of public sector funding rules.

The deliverability of additional renewal schemes to improve asset sustainability

6.78 As noted previously, in July 2018 Network Rail completed an exercise to identify circa £1bn of work that would improve asset sustainability and presented the findings to ORR as an interim response to the draft determination. Network Rail's focus was on earthworks, track, drainage and metallic structures, although other relevant factors were considered. We reviewed the total £1bn of works it had identified and concluded the additional renewals would not present a significant additional risk to delivery of the overall plan, as:

- the percentage increase in total capital works (compared to Network Rail's SBP submission) was not significant;
- most routes had already developed plans for these schemes as part of earlier iterations of their route strategic plans; and
- approximately 75% of the additional expenditure was planned for years 3-5 of CP6.

6.79 On this basis, we conclude that the additional asset sustainability related renewals should not materially increase delivery risk provided that the work is confirmed by routes and incorporated into delivery plans at an early stage.

6.80 Although Network Rail raised some general concerns about deliverability, we note that it has not proposed any increase in contingency associated with this issue.

6.81 We have not considered the deliverability of any additional renewals supported by 'contingent asset management funding' in detail. If this approach is to be successful, we expect Network Rail to develop contingent workbanks and undertake appropriately detailed delivery planning in conjunction with the additional planning and assurance work which we identified as necessary in the draft determination. These additional renewals supported by 'contingent asset management funding' would present an opportunity to address the reduction in work planned in years 4 and 5 of the control period; which is also when risk funds are most likely to be released.

Readiness for CP6 and monitoring delivery

6.82 With only five months until the start of CP6, it is important that Network Rail and each of its routes are in a position to make a good start to the control period and avoid the mistakes of the past. With this in mind, we have reviewed the preparations for the start of the control period, and have included key preparedness metrics in our recent Network Rail monitor. We will continue to monitor this preparedness ahead of 1 April 2019, including by updating this analysis in our forthcoming monitor.

Central cost allocation

Draft determination

6.83 We did not propose making any specific changes to Network Rail's cost allocation approach in our draft determination. However, we said that we would carry out a limited but more detailed review of central cost allocations before our final determination.

Consultation response

6.84 Network Rail stated that it will continue to identify ways to devolve services to routes in order to charge costs directly.

6.85 DfT thought that the cost allocation process outlined in the draft determination was fair and should not be changed. It said that if cost allocation is revisited then this should be done early in the next periodic review programme and ahead of the SoFA for CP7.

6.86 Transport Scotland considered that the accuracy of the allocation of central costs should be improved in advance of CP7. It proposed that a more detailed bottom up analysis of the actual costs incurred by the Scotland route in procuring services from the centre should be undertaken.

6.87 Transport Scotland concluded by emphasising the importance of monitoring the allocated route spend in detail during CP6. To do so it has requested details of each central cost item attributed to the Scotland route in advance of CP6.

Our response

6.88 We welcome Network Rail's commitment to continue to devolve services and review its allocation methodology.

6.89 We agree with Transport Scotland that it is important to monitor the costs that are allocated to routes in CP6 and we will do that. We will engage with Network Rail to develop its allocation methodology. We also expect that routes should contest and challenge the allocations where appropriate.

6.90 Overall we considered Network Rail's updated cost allocation approach to be reasonable. More information and our other views on this issue are included in the supplementary document – financial framework[20].

6.91 Reflecting Network Rail's commitment to continuous improvement in this area, the importance of route regulation, the separate funding provisions that apply to Scotland

[20] PR18 final determination Supplementary document – Financial framework, ORR, October 2018. This may be accessed here.

and its materiality to Transport Scotland, we expect Network Rail to keep the methods it uses under review in CP6 and where appropriate update its methodology.

Digital Railway in the SBPs

Draft determination

6.92 The draft determination considered certain digital railway costs where these had been included in the SBPs as:

- conventional signalling schemes to be considered for digital technology; or
- capex and opex costs in central functions which DfT confirmed could be funded from SoFA funds.

Consultation responses

6.93 RIA expressed a view that the unit costs of digital rail resignalling schemes could be reduced to become competitive with conventional signalling renewals and that this would allow more such schemes to be undertaken in CP6. RIA considered that this would be beneficial in terms of managing market capacity and reducing the bow wave of signalling work in future control periods.

6.94 Transport for Greater Manchester expressed concern that the SBPs placed 'undue confidence in the role of Digital Railway to address the forthcoming large-scale signalling renewal programme'. Its response considered that there was little evidence to provide confidence that Digital Railway could support the potential level of renewals.

6.95 Other respondents commented on the:

- potential benefits of Digital Railway technology in increasing capacity; and
- challenges associated with the new technology and the need for appropriate staff training.

Our response

6.96 With regard to the volume of signalling work undertaken and the substitution of digital solutions for conventional technology, we expect Network Rail to continue to explore options to drive down unit costs and so increase the volume of schemes which can be undertaken. This said, we recognise that signalling schemes often have long lead times and that the scope for any such change may be limited in CP6.

6.97 We note the concerns raised about confidence in the deliverability of large-scale digital signalling schemes. Whilst this is perhaps more relevant to the enhancements programme, we expect Network Rail to assure the delivery of essential CP6 signalling volumes as part of any consideration of digital alternatives.

Digital Railway in Scotland

Draft determination

6.98 In the draft determination we outlined that the Scottish Government would be required to pay £22m towards defined central costs related to the Digital Railway programme.

Consultation responses

6.99 In its response to the final determination, Transport Scotland said that it would be willing to contribute toward Digital Railway but there must be a digital railway strategy for Scotland and a working group should be established to deliver this.

6.100 DB Cargo supported the view of ORR that part of the GB Digital Railway programme team costs should be allocated to Scotland, as the rail network has to work as a GB system on a long-term basis.

Our response

6.101 Our view remains that £22m should be allocated to Scotland for defined Digital Rail central costs. We consider that this can deliver future benefits for passengers in Scotland that align with Scottish Government key strategic outcomes, in particular for improved services (Digital Railway will deliver faster journey times) and improved capacity.

6.102 We note Transport Scotland has requested a specific digital railway strategy for Scotland. Following publication of the final determination we will engage with Network Rail and Transport Scotland to ensure Network Rail's signalling strategy for CP6 addresses Transport Scotland's concerns.

6.103 We require Network Rail to ensure it has appropriate governance arrangements for the Digital Railway spend, so that all funders are involved.

Headwinds and Efficiencies

Draft determination

6.104 In the draft determination, we outlined our analysis of the headwinds and efficiencies in Network Rail's SBP and we challenged Network Rail to identify £659m of additional efficiencies.

6.105 Our efficiency challenge was quantified based on the independent reporter's assessment of headwinds. The £659m represented an upper bound adjustment to the headwinds, because we used it as a proxy for inefficiencies elsewhere in the SBP, including potential double-counting between headwinds, base costs, efficiencies and risks. We left it to Network Rail to identify how it could meet our challenge.

Consultation responses

Industry stakeholders

6.106 DfT's response gave support for ORR providing a robust efficiency challenge, to produce stretching but achievable targets. Its response also highlighted the importance of the devolved routes leading the development of efficiency targets. In line with the HLOS requirements, it was supportive of ORR's proposal that savings from efficiencies should be directed towards asset sustainability and train service performance improvements.

6.107 Transport Scotland's response indicated its support for a challenging but achievable efficiency target, noting that proposed efficiencies were greater in the Scotland route than in the England & Wales routes and across Great Britain as a whole. It also noted concerns about the increase in costs for central functions from CP5 to CP6 and it requested that additional efficiencies be sought in these central functions.

6.108 The majority of industry stakeholders (passenger and freight operators, trade groups and transport authorities) noted their support for the efficiency challenge in the draft determination, as they had been concerned about deteriorating asset condition in CP5 and so they supported the use of efficiency savings to fund additional works. Responses included suggestions that further collaboration between Network Rail and operators, contestability of central charges and a more robust approach to access planning may serve to increase efficiency.

6.109 The operator Southeastern raised a concern that stretching efficiencies could drive "value engineering which removes proposed performance improvements". TSSA raised concerns about unduly stretching efficiency targets, which were likely to encourage Network Rail to reduce staff numbers.

Network Rail

6.110 In its response, Network Rail disagreed with ORR's approach of using headwind reductions as a proxy for inefficiencies elsewhere in the SBP, but agreed there was potential for further efficiency savings.

6.111 Network Rail also disagreed with the independent reporter's assessment that headwinds may be double-counted in base costs. Network Rail commissioned a follow-up review using the same independent reporter[21], to assess a sample of large headwinds for double counting. The independent reporter's review did not find clear evidence of double counting (nor did it provide clear evidence that there was not double-counting), and still supported the need for a significant efficiency challenge.

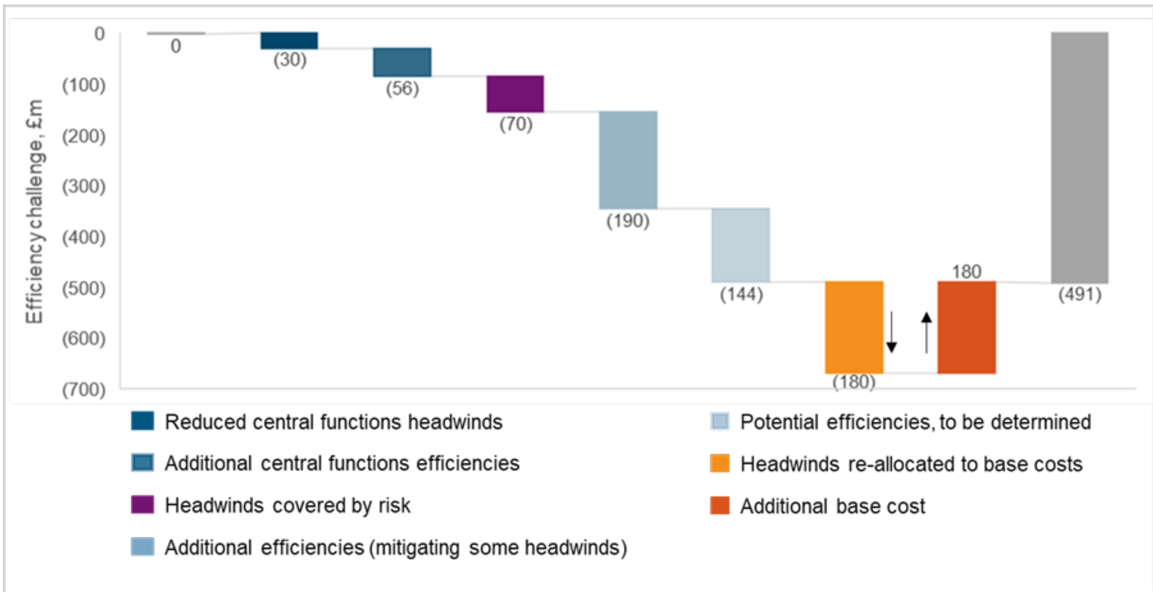
6.112 Notwithstanding the above points, Network Rail has identified £491m of additional efficiencies, in response to our £659m challenge. The £491m is analysed in Figure 6.1 and Figure 6.2. In summary, it comprises:

- £86m improved efficiency in central functions (£30m reduced headwinds, £56m additional efficiencies);
- £70m reduced headwinds, where the headwinds Network Rail proposed in its SBP are better classified as risks, covered within the routes' risk funding. For example, the SBP included headwinds for possible market pressures due to HS2, which is uncertain and should be treated as risk;
- £190m of additional efficiencies, identified by the routes, and supported by efficiency plans. For example access optimisation and new contracting strategies;
- £144m additional efficiency within the routes, which has not yet been identified and which does not have efficiency plans. This was sometimes referred to in Network Rail's response as the 'efficiency stretch'; and
- £180m of headwinds which should be included in the base cost plans, rather than headwinds.

6.113 Network Rail's proposed reallocation of £180m from headwinds to base costs has no net impact on funding (as the £180m reduction in headwinds is negated by a £180m increase in base costs), however it increases Network Rail's total efficiency challenge to circa £670m, which is similar to ORR's efficiency challenge in the draft determination (£659m). This results in an increase in exit-to-exit efficiency (end of CP5 to end of CP6) from about 8% in the SBPs to about 10%.

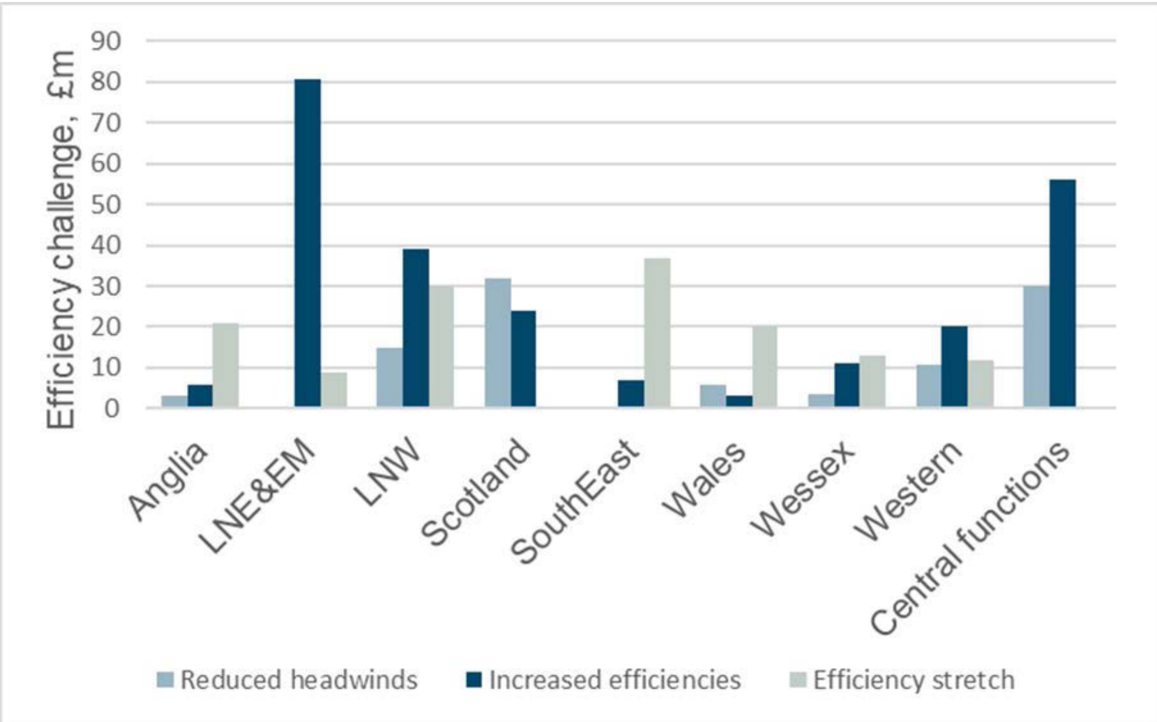
[21] *PR18 Review of Network Rail Efficiencies - Phase 2 (Headwinds)*, Nichols Group Ltd, 27 September 2018. This may be accessed here.

Figure 6.1: Components of Network Rail's £491m additional efficiencies



Source: Network Rail

Figure 6.2: Network Rail's £491m additional efficiencies, split by route



Source: Network Rail

6.114 The majority of Network Rail's proposed extra efficiencies is in renewals) and they are planned to be delivered in years 3, 4 and 5 of the control period. Network Rail said this was intended to avoid any destabilising effect on the routes' work plans at the start of CP6.

6.115 As shown in Figure 6.2, all seven routes in England & Wales have taken on part of the £144m efficiency stretch. The routes have all taken ownership of their efficiency stretch, however their responses all noted (to varying degrees) that this increases their level of risk.

6.116 The Scotland route suggested that the additional efficiencies arising in the route plus its share of central functions' additional efficiencies (£70m in total) should be retained in the route to fund increased asset renewals costs on two specific projects (Carstairs Junction and a programme of bridge replacement works).

6.117 In our draft determination, we highlighted several areas where Network Rail could make potential savings in support and other costs (e.g. route services, such as IT). Overall Network Rail agreed that additional savings could be made and it proposed £86m of savings. This is in excess of the assumption we made.

6.118 However, it did not agree with some of our views on where savings could be made and the suggestions contained in the consultant's reports. For example, it thought that its diverse supplier base and the level of technical knowledge of each supplier, could explain why the rate invoices were processed by Network Rail, was lower than its peers.

Our response

6.119 Network Rail has made significant efforts to meet our efficiency challenge. In particular, we found it very encouraging that the devolved routes had taken the lead in identifying additional, planned, efficiencies and that they have taken ownership of the challenge to seek further efficiencies over the course of CP6.

6.120 The main area where Network Rail disagreed with our challenge was in respect of our view that there was double-counting between headwinds and base costs. We were involved in the second independent reporter's review, which followed the draft determination. This supported the need for an efficiency challenge. Our view is that this additional work did not provide any further evidence either way as to whether there was or was not double-counting between headwinds and base costs. Reflecting this, our view remains as set out in the draft determination; that there is likely to be a degree of double-counting here.

6.121 For all the other issues identified in the draft determination (unjustified headwinds for central functions; headwinds mitigated by efficiencies; and headwinds better classified as risks), Network Rail has overall met our efficiency challenge.

6.122 We only identified one technical error in Network Rail's response on the efficiency challenge. The Scotland route had included £7.8m of materials purchased in CP5 as an efficiency in CP6 and this does not qualify under the criteria for CP6 efficiencies. We have subsequently discussed this with Network Rail and it has confirmed that this will not be recorded as an efficiency. However, the £7.8m will be removed from its CP6 base costs, so overall Network Rail will still provide the £491m net reduction in funding as set out in its response to our efficiency challenge. Because of this, the level of efficiencies will be slightly lower than that suggested by its response.

6.123 We also challenged the phasing of Network Rail's efficiency proposal as we thought it was unrealistic to assume that it could deliver the efficiencies it had identified in year 1. Network Rail responded well to this challenge, reviewed its plans and adjusted its proposal by moving £50m of efficiencies from year 1 to years 2 and 3 of CP6. This better reflects how these efficiencies will be delivered, so we have agreed to this proposal.

6.124 We acknowledge the comments made by the routes that the efficiency challenge increases their level of risk. We are pleased that the routes have developed plans for part of the additional efficiencies and that they have accepted ownership of the additional efficiency stretch.

6.125 Since publishing the draft determination we have commissioned further work that looked at the typical level of efficiency savings which companies might be expected to deliver through devolution of decision-making. This work also made further comparison between maintenance units. The analysis[22] highlighted the potential for further efficiency savings beyond those identified in Network Rail's SBP. It also suggested that other infrastructure managers are achieving higher efficiencies than those proposed by Network Rail, even with the additional £491m efficiency challenge. This supports our view that the efficiency stretch does not impose an unreasonable level of risk on the routes. Indeed, while further efficiency savings are uncertain, this evidence serves to highlight that our final determination provides a balanced position on forecast efficiency, and that there is a reasonable likelihood that Network Rail should be able to out-perform the assumptions made (noting, of course, that there is equally a reasonable likelihood that it may also fall short).

6.126 Based on the points noted above, we have accepted Network Rail's commitment to delivering additional efficiencies of £491m for CP6. We will continue to monitor closely the routes' delivery and financial performance at the start of the control period, to ensure that these efficiency plans are being implemented.

6.127 We agree that the Scotland route's additional efficiency saving should be initially retained in the route in the final determination. This is to fund two specific issues that have materialised since the Scotland route drafted its SBP: in CP6 it will need to replace a number of bridges that are at risk of failure linked to high alumina cement; and the Carstairs renewal is no longer linked to an enhancement. While we accept

[22] Evidence on Top Down and Bottom-up Efficiency Adjustments for Network Rail's CP6 Maintenance and Renewals, CEPA Ltd, 8 October 2018. This may be accessed here.

the Scotland route's proposals, given Carstairs is still at very early stages of development (Governance for Railway Investment Projects or GRIP stage 1[23]) and there is no firm estimate of costs, we will take a bespoke approach. This will involve an efficient cost assessment at around GRIP 3[24].

Research & development costs

Draft determination

6.128 In the draft determination we noted the potential benefits of R&D but expressed concerns over the apparently large increase in planned expenditure in CP6 compared with CP5, the weak evidence presented for the level of proposed spend, and with Network Rail's proposed governance arrangements. We considered that in these circumstances, switching expenditure to improve asset sustainability would represent better value for money.

6.129 We therefore proposed that Network Rail's budget for R&D should be reduced from £440m to £100m, to bring it into line with the level of spend in CP5, as indicated by Network Rail's submissions to ORR. We also considered that improvements to governance arrangements should be made before R&D expenditure is committed.

6.130 In recognition of the benefits that R&D can bring, we considered that the level of expenditure could be increased if further funding became available during CP6.

Consultation responses

Industry stakeholders

6.131 Our proposal provoked a strong response a large number of stakeholders. Network Rail also provided a substantial amount of new evidence in response to our challenge.

6.132 All responses echoed our view of the potential benefits of R&D and the majority suggested that there should be an increase in R&D spend compared to our draft determination.

6.133 A number of stakeholders expressed concern that, as our focus on R&D related to infrastructure and other aspects of Network Rail's core duties, this would mean that wider aspects of the Rail Technical Strategy would be unfunded.

6.134 DfT saw R&D as "vital to the future sustainability and improvement of the rail network" and something which should be a mainstream activity for the industry as a

[23] GRIP 1 is output definition stage.

[24] GRIP 3 is where there is an assessment of potential options and selecting the most appropriate one to deliver stakeholders' requirements.

whole but it recognised that Network Rail's SBPs had not made a case for the requested level of funding. DfT raised points about:

- increasing R&D spend above the £100m figure provided that this was supported by a better business case and improved governance;
- cross-industry working and the importance of attracting matched funding;
- improving incentives on the industry to make R&D a mainstream activity with improved effectiveness and reduced reliance on ring-fenced funding; and
- using R&D activity to seek improvements to the timetabling process.

6.135 Transport Scotland supported a reduction in R&D funding relative to Network Rail's SBPs, whilst also recognising the industry's aspirations to place itself at the leading edge of railway technology. Transport Scotland wanted to see a clear line-of-sight between proposals for R&D and the Scottish Government's strategic priorities, including outcomes for Scottish rail passengers and freight customers.

Network Rail

6.136 Network Rail provided a detailed response, and accepted that it had not made a sufficiently clear case for its SBP position. It also agreed that R&D spend should be reduced relative to the SBP.

6.137 In particular, Network Rail's submission covered:

- a re-statement of the actual level of expenditure in CP5 as being £238m when R&D work undertaken through other projects and programmes is aggregated (rather than the circa £100m figure included in its original submission);
- new evidence that included details of planned R&D projects, with estimated costs and an assessment of their potential benefits;
- an explanation of how R&D expenditure contributes to improvements in asset sustainability;
- details of governance and how the deliverability of R&D projects will be reviewed; and
- proposals for securing matched funding to support the R&D programme.

Our response

R&D funding

6.138 One of our concerns at the time of the draft determination was the apparently large increase in R&D activity from the reported circa £100m in CP5 to the proposed

£440m for CP6. We considered that successfully managing such a large increase on this type of activity would present serious challenges and risks. As noted above, and endorsed by DfT, the original evidence justifying this level of spend was insufficient.

6.139 Network Rail responded positively to the challenge set out in our draft determination. It provided a significant amount of additional information. This included new evidence that explained that the level of R&D expenditure in CP5 was over £200m. The reason that this was not previously included in Network Rail's reported numbers was that the expenditure was distributed among a number of projects and programmes as shown in Table 6.3, some of which were not included in the original submission.

Table 6.3: Network Rail expenditure on R&D in CP5

Business area	Spend	Example projects
STE R&D team	£38m	DIFCAM (digital imaging for condition asset management), Shift2Rail, COMPASS
Digital Railway programme	£58m	Test train development, ETCS Melton trials
ORBIS programme	£30m	Development related to DSTs (decision support tools), LADS (linear asset decision support) and data collection services enhancement
Maintenance Effectiveness Programme	£32m	Eddy Current, PLPR (plain line pattern recognition), Intelligent Infrastructure
Infrastructure Projects	£20m	Track Den initiatives, IP signalling data collection, RILA (railway infrastructure alignment acquisition system)
SCADA	£30m	Software development
Electrical Safety Design	£20m	Hardware development, Busbar development
Other parts of the business (Routes, Air ops, Route Services, System Operator)	£10m	Rail milling, whole system modelling, drones, university research carried out at route level
Total	**£238m**	

Source: Network Rail

6.140 We accept Network Rail's new evidence and welcome the inclusion of all future R&D activity under a single programme. We consider that this should provide greater transparency and accountability for R&D expenditure. We also accept the higher historical baseline as a factor when considering the deliverability of the programme and the importance of continuity in activity levels.

6.141 Network Rail has proposed R&D funding of £245m from SoFA funds. This is backed up by a series of outline business cases, which indicate a potential average benefit: cost ratio (BCR) of 2.8.

6.142 The nature of R&D activity means that these returns are not certain and many are likely to accrue in future control periods. However, we have reviewed the newly-presented methodology used by Network Rail to estimate likely benefits (which takes account of the different likely success rates of projects at different levels of maturity) and found it reasonable. When taken alongside the new proposals for governance across the portfolio, we accept that the updated proposals for the R&D programme should provide long-term benefits. Network Rail's management processes include steps to define and track potential benefits and we think it is important that the governance process should regularly review and challenge these assessments.

6.143 We have considered the proposals on R&D spend alongside the proposals for efficiency improvements and asset sustainability. In light of our decisions in these areas, we consider that R&D funding should be £245m for Great Britain. This is an increase in R&D spend relative to our draft determination of £145m.

Matched funding

6.144 Network Rail plans to supplement the core R&D funding with additional matched funding from third parties. In sizing the R&D programme, it has assumed that £112m of such funding can be secured. We note that no firm commitments have yet been secured (which is not unusual, given that Network Rail's spend is still to be finalised) but also note that Network Rail is confident that this funding can be secured based on having secured £68m of similar funding in CP5.

6.145 The implementation programme presented by Network Rail assumes that the matched funding will be available. We have some concerns over the scale of funding to be secured and we therefore consider that Network Rail has more to do to ensure that this external funding will be available in the timescales envisaged. We expect Network Rail should therefore plan its R&D programme so as to avoid any disruption if matched funding is delayed or not forthcoming.

6.146 This does not mean that we think that a significant degree of matched funding is optional. It is a very important aspect of improving efficiency across the wider rail industry and is likely to have benefits beyond those which accrue to Network Rail and its direct customers. We therefore expect Network Rail to strengthen urgently its efforts to secure matched funding and to report on its progress ahead of and during CP6.

6.147 We are pleased that Network Rail understands the importance of securing the benefits of R&D carried out with third parties and we expect it to continue to protect its interest in intellectual property rights and associated licensing arrangements arising from R&D.

6.148 DfT asked us to consider incentives on the industry to increase R&D activity. In the short term, we consider that the greater transparency arising from Network Rail's 'programme' approach to R&D, coupled with the need to demonstrate benefits to providers of matched funding, will incentivise wider participation in R&D. We also note that our proposals for a performance innovation fund (as discussed in Chapter 5 of the final determination overview document[25] would support new approaches where these require action between Network Rail and its customers.

Governance

6.149 Network Rail's response to the draft determination describes a governance process which is based on:

- application of Network Rail investment regulations to R&D projects via an investment panel;
- investment decisions being informed by route directors of route safety & asset management, a Technical Leadership Group drawing on Rail Delivery Group and Rail Supply Group members and an advisory board with representatives from DfT, Transport Scotland and industry R&D experts; and
- the Group STE Director being accountable for successful delivery of the R&D programme.

6.150 It is important that R&D activities support the whole range of Network Rail's operations, maintenance, renewals and support activities and a duty to consider this should be embedded in the remit of the R&D board.

6.151 We think that it would be beneficial for the board to review the proposed list of R&D projects before the CP6 programme commences. This would also provide an opportunity to consider any R&D requirements which may arise from our currently ongoing inquiry into the disruption arising from the May 2018 timetable.

6.152 Network Rail also described use of the Rail Industry Readiness Level framework to provide an objective assessment of the status of R&D projects and the role of a Project Development Framework (PDF) panel of experts from routes and central functions to validate these assessments. Network Rail stated that this assessment is a pre-condition to the funding of R&D projects.

[25] *PR18 final determination – Overview of approach and decisions*, ORR, October 2018. This may be accessed here.

6.153 We consider that Network Rail has proposed a good basis for governance of its R&D programme. We expect to see the governance arrangements formalised, agreed with us and fully implemented before any CP6 R&D funding is committed.

6.154 We note that the pipeline of projects will be dynamic and is expected to change as schemes either succeed and pass into implementation or are terminated if they do not fulfil expectations. We also note that changes in the availability of both SoFA and matched funding may change the programme and that emerging issues could affect priorities. The detailed governance process should address all of these matters.

Scope of R&D activity

6.155 Network Rail's response set out a list of 129 R&D projects which it has identified and prioritised within an assumed budget of £357m (£245m core funding plus £112m matched funding). These items have been prioritised from proposals put forward by cross industry stakeholders and Network Rail's own engineering teams. The projects cover the areas shown in Table 6.4.

Table 6.4 – Areas of Network Rail R&D Expenditure

Programme / Project	Total CP6 Budget (£m)
Data and Information	10
Future communications and train control	83
Efficient Asset Management	193
Home Safe Plan	36
National Security Programme	20
Shift2Rail	15
Grand Total	357

Source: Network Rail Research & Development response to ORR's PR18 draft determination – Appendix C

6.156 As stated, we anticipate that the list and mix of projects will vary over time. The use of a portfolio approach can be expected to spread risk and allow Network Rail to identify and progress projects which offer strong benefits.

6.157 The largest part of the programme relates to efficient asset management and this contributes to asset sustainability and future efficiencies. We think that it is reasonable that this is the major focus of R&D activities under the SoFAs and we expect this to deliver future improved asset sustainability and other benefits across the whole network.

6.158 We note that the programme includes an element of Shift2Rail which is a European programme. Network Rail have told us that whilst there is uncertainty over the ongoing programme after Brexit, the proposed schemes are part of an arrangement between infrastructure owners and so are not expected to be affected.

Transport Scotland funding for R&D

6.159 Transport Scotland indirectly fund Network Rail's R&D programme through the allocation of the Scotland share of central costs to the Scotland route. It therefore has an interest in the relevance of R&D to Scotland and in how it relates to the objectives set out in the Scottish HLOS. Transport Scotland's response to the draft determination recognised the benefits of R&D whilst challenging the level of investment and the visibility of its relevance to Scotland.

6.160 We have taken these representations into account in considering our approach to the final determination. We are satisfied that the revised R&D budget of £245m (which is somewhat lower than that proposed in the SBP in February 2018) is justified by the potential benefits across the whole network and that it should be affordable within the overall funding provided by the SoFAs.

6.161 We note that Appendix A to Network Rail's response[26] describes how the R&D programme is aligned with Transport Scotland's key strategic outcomes and that Network Rail recognises the importance of this.

6.162 We welcome Network Rail's commitment to involve Transport Scotland with the new R&D advisory board. We consider that this will improve the line-of-sight between the R&D projects and benefits to the railway in Scotland, and give Transport Scotland an opportunity to promote specific R&D opportunities, which apply to Scotland.

6.163 We also note that Network Rail intends to spend an element of its R&D budget through Scottish institutions and to undertake some activities on the Scottish network. We expect it to continue to ensure that the economic and other benefits of R&D activities are distributed across all of the regions of Great Britain, so as to promote long-term value for money.

Timetabling and related matters

6.164 DfT said that, as well as improving asset management, it would welcome R&D activity which "focussed on the improvement of timetabling systems and technology as well as wider technology supporting advice on potential options for network and service change".

6.165 Within Network Rail's proposed programme there is a project (traffic management and timetable development), which is intended to contribute to "increased capacity, improved performance, a reduction in cost, and improved customer satisfaction with train service reliability and punctuality". This is forecast to cost £21m. Network Rail

[26] Research & Development response to ORR's PR18 draft determination, Network Rail, 31 August 2018.

has also told us that elements of the Shift2Rail programme are also expected to have timetabling benefits in connection with intermodal transfers.

6.166 Notwithstanding this, we consider that there is scope for timetabling and wider performance improvements to have a higher profile within the R&D portfolio and we would expect this to be further considered by the proposed R&D advisory board.

The wider role of R&D in the rail industry

6.167 The proposals contained in the Initial Industry Advice[27] set out a wider context for R&D in the rail industry. This advice was issued (in separate versions) to DfT and Transport Scotland to inform government decisions on the HLOSs. Our conclusions in PR18 reflect Network Rail's obligations under the HLOSs and our own statutory duty to carry out the periodic review in a way that we consider is most likely to make the best and most practicable contribution to delivering the HLOSs.

6.168 We are pleased to note that Network Rail's response makes reference to potential sources of funding for wider R&D activity and we would expect Network Rail to coordinate and align its R&D activities with wider industry initiatives as far as reasonably practical.

[27] The Initial Industry Advice was not formally issued to ORR.

7. Other single till income

Overview

This chapter sets out our views on the points raised by stakeholders on our assessment of Network Rail's forecast Other Single Till Income (OSTI) in CP6. This was set out in our draft determination Supplementary Document – Other Single Till Income. For some items, we have included more detailed views in our final determination 'Supplementary document - other single till income'.

Property income

Draft determination approach

7.1 Our draft determination assessment focused on Network Rail's property income (both rental and sales). We commissioned Cushman & Wakefield (C&W) to assess Network Rail's forecast property income. C&W concluded that the company's forecasts were based on assumptions that were broadly reasonable, though it considered Network Rail should be able to generate more property income than assumed in Network Rail's SBPs.

7.2 We included an adjustment in our draft determination for £67m more property income than Network Rail assumed in its SBPs, 5% higher than Network Rail's forecast.

Consultation responses

7.3 Network Rail said that our estimate of £67m additional property income for Great Britain in the draft determination was not achievable. It said:

- C&W had not taken account of falling footfall at stations;
- there was a £12m error in C&W's analysis;
- C&W had applied speculative growth assumptions to a number of income lines in its assessment; and
- the development market is cooling due to wider economic factors and Brexit which are also impacting on Network Rail's retailers.

7.4 Instead, it suggested that it could deliver £25m of additional property income relative to its SBP forecast.

7.5 DfT supported a challenging property income assumption (without referring to particular values) and stated that ORR and Network Rail should determine what an appropriate target should be.

Our response

7.6 C&W has confirmed that its report took account of the issues raised by Network Rail and that its growth assumptions were robust. However, it did agree that there was a misunderstanding about some of the data that Network Rail provided. C&W therefore accepted that its base forecast was £12m too high.

7.7 We note that we have used C&W's base assumption. The high end of the range in C&W's report was considerably higher. We also note that Network Rail's recent sale of its commercial estate was for more than the company originally expected[28], suggesting that the market has a more positive view about the potential revenue from property.

7.8 Given these factors, we have adjusted for the £12m error in C&W's analysis, but not for Network Rail's other points. Our additional property income assumption is now £55m for Great Britain (£52m in England & Wales and £3m in Scotland). Our Scotland assumption is unchanged as the £12m error did not affect Scotland.

Crossrail supplemental access charge income

Draft determination approach

7.9 In our draft determination we noted that Network Rail had omitted the forecast Crossrail supplemental access charge (CSAC) income it will receive in CP6 from its SBP and in its submissions to DfT on the SoFA. We have discussed the treatment of this income with DfT and Network Rail.

Consultation responses

7.10 Network Rail has provided an estimate of CSAC income of between £260m and £278m (in 2017-18 prices) based on the cost of debt range in our draft determination and assuming CPI as an inflation index. Network Rail concluded that as CSAC income would not increase the overall level of certain funding, it did not intend to include expenditure funded by this income in revisions to its plan that it provided in its response to our draft determination.

7.11 DfT said that the CSAC income should be allocated to 'contingent renewals' (now called contingent asset management funding) on the basis that it may need to recall this from Network Rail to fund other areas of transport expenditure.

[28] Network Rail also has other operating income such as sales of scrap metal that is included in its forecasts as a credit (i.e. reduction) in operating costs. For Great Britain, this is forecast by Network Rail to be £1.2bn (in 2017-18 prices) in CP6. Network Rail provided some analysis of this forecast in late August 2018 and this showed a £0.4bn reduction compared to CP5. The large majority of the changes that Network Rail identified were reductions, which we think is unrealistic.

Our response

7.12 Since our draft determination, the Crossrail project has been delayed, though not due to delays on Network Rail's on-network works. We understand that the CSAC is still payable to Network Rail from Period 10 of 2018-19 (if it was not, then Network Rail would receive finance charge income instead).

7.13 Using our real (RPI) 1.45% pre-tax cost of debt we are forecasting that Network Rail will receive £274m in CP6 from this charge.

7.14 Using DfT's proposed approach to this issue would mean including the CSAC income in the OSTI section of the England & Wales revenue requirement calculation and the contingent asset management funding section of the calculation. Overall, these two amounts would net off to zero.

7.15 Given the uncertainty over how much of this income Network Rail will be able to spend, we have decided not to include CSAC income in the England & Wales revenue requirement calculation, as this would overly complicate the risk funding process. Similarly, the requirements we have placed on the company do not rely on this income. In CP6, if the CSAC income that Network Rail will receive is not provided to the UK Government and it becomes available to Network Rail to spend, it should be treated as additional risk funding.

Managed stations qualifying expenditure

Draft determination approach

7.16 Managed stations qualifying expenditure (QX) costs are recovered through charges to train operators. Our draft determination proposals on QX were consistent with the high-level decisions that we had already set out in respect of the charges that train operators will pay and the financial incentives in place to encourage improved performance on the network.

Consultation responses

7.17 Network Rail provided updated QX forecasts, which increased QX income in CP6 from £339m to £361m (in 2017-18 prices)[29]. Network Rail stated that this increase is due to income from two new managed stations (Clapham Junction and Guildford). Network Rail stated that this income will be almost entirely offset by operating costs at these stations.

[29] This excluded the revised profit element that we have now decided on in the Supplementary document – Overview of charges and incentives decisions.

Our views

7.18 We have included Network Rail's updated forecasts in our OSTI assumptions in the final determination including the adjusted profit element in the QX management fee as we have now decided on its level, so CP6 QX income is now assumed to be £363m (in 2017-18 prices).

8. Financial Framework

Overview

This chapter summarises our responses to the main points raised by stakeholders on our draft determination supplementary document on the financial framework. For some items, we have included our views in our PR18 final determination documents: 'Overview of approach and decisions document' and 'Supplementary document – financial framework'.

Budgetary flexibility

Draft determination approach

8.1 In our draft determination, we said that with Network Rail now being reclassified as a public sector body, it is important for the governments that there will be appropriate governance of Network Rail's budgets in the new control period. Public sector bodies generally have limits on what money they can transfer between years, and are not permitted to transfer capital expenditure to operating expenditure. This reflects the need for the governments to manage their overall budgets.

8.2 HM Treasury and DfT have agreed the degree of flexibility that Network Rail will be permitted. These flexibilities are set out in the financial framework supplementary document. They include the following:

- Network Rail can defer up to 10% of capital expenditure budgeted for a particular year to a later year; and
- Network Rail can defer up to 0.75% of resource expenditure for the year concerned to a later year.

Consultation responses

8.3 Network Rail noted that it would have greater flexibility than most other public sector bodies but highlighted that the flexibilities would still likely constrain adjustments to budgets in later years of CP6. Network Rail specifically highlighted the issue that it could lose funding in CP6 if it holds too much risk funding in routes in a given year, that is then not needed for risk.

8.4 This concern around budgetary flexibility was echoed by several other stakeholders who noted that the limits could affect output delivery should funds not be spent effectively within a given year.

8.5 DfT welcomed our inclusion of the UK Government's public sector finance requirements in our draft determination for the financial framework. It thought that this balanced public sector spending practices with the need for Network Rail to be able to undertake long term financial planning. DfT encouraged engagement between Network Rail, its supply chain, ORR and government to establish spending profiles that reflect the wider public fiscal position.

Our response

8.6 DfT and HMT have decided the budgetary flexibility available to Network Rail during CP6. This applies to Network Rail's expenditure across the whole of Great Britain as it is the position for Great Britain that is consolidated into DfT's accounts. DfT has said that the flexibilities will be the same for Scotland and for England & Wales.

Network grants

Draft determination approach

8.7 In chapter 4 of our draft determination financial framework supplementary document, we set out our proposed approach for the treatment of network grants including the non-indexation of network grants in CP6.

Consultation responses

8.8 In its response, Network Rail requested clarity on the specifics of how it would receive the grant each year (e.g. via a deed or agreement, or a different arrangement, such as a letter). It stated this understanding was essential to ensure stable funding to deliver the plans outlined in CP6.

8.9 Similar concerns, about how the network grant will be paid, were also expressed by FirstGroup.

8.10 Network Rail noted that it was currently in discussion with ORR, DfT and Transport Scotland about these requirements.

Our response

8.11 Clarification on this matter is something that remains to be agreed between Network Rail and the governments. Our key issues are that: there is sufficient certainty on the level of network grant payments and the scope for variations; and effective grant dilution provisions can be included in track access contracts for CP6. Whether a deed of grant or grant letter is used, the grant dilution clause in access contracts would still be enforceable.

Management of financial risk

Risk funding

Draft determination approach

8.12 In our draft determination, we recognised that Network Rail needs an appropriate provision for managing financial risk, not least to avoid the problems that arose in CP5 from the re-planning that the company had to undertake to address cost overruns.

8.13 We agreed with Network Rail's total proposed risk funding of £2.6bn (£2.3bn for England & Wales and £0.3bn for Scotland). However, we set out changes to how Network Rail proposed it should manage financial risk in CP6. These changes involved moving £865m from the centrally-held GPF to routes.

8.14 In England & Wales, the funding moved to routes will be held by the route and, if not required to manage risk, will be used by routes to pay for additional renewals (we referred to these as 'contingent renewals' in our draft determination but they are now referred to as contingent asset management funding). We also asked Network Rail to review its allocation of risk funding across England & Wales routes.

8.15 We said that in Scotland, we would continue to work with the Scotland route and Transport Scotland to confirm the appropriate treatment of risk funding there.

Consultation responses

8.16 Network Rail accepted the proposed risk funding total for Great Britain of £2.6bn (in 2017-18 prices). It also accepted that half of its proposed centrally held risk funding should be re-allocated to contingent renewals at a route level and it revised its allocation of risk funding across England & Wales routes.

8.17 However, it highlighted that the transfer of funding from the centrally controlled Group Portfolio Fund (GPF) to route contingent renewals funding (now referred to as contingent asset management funding) would result in routes having to manage more risks (including Schedule 8) that are not exceptional in nature.

8.18 Network Rail proposed that risk funding should be included in CP6 plans as 'resource' expenditure. It made the point that under public sector financial rules this classification should provide greater flexibility to utilise funding, in particular because transfers of funding from resource to capital expenditure are allowed.

8.19 Transport Scotland proposed that all risk funding in Scotland should be held at route level. It also said that it did not support the use of deferred works to meet the costs of materialised risks arguing this can lead to deterioration in performance and resilience.

8.20 DfT commented that our risk funding proposals appeared appropriate and agreed that where risk is managed effectively, it would allow for increased spending on R&D in CP6, requesting that this approach should be included in the final determination.

8.21 DfT welcomed the re-allocation of risk funding to the routes saying that this approach was in line with devolution principles. The re-allocation was also endorsed by other respondents.

8.22 DfT made the point that there should be arrangements to release central and route controlled risk funds for output delivery if risks fail to materialise.

Our response

8.23 Our final determination is that the balance between risk funding held in the routes and the centre should be different to Network Rail's strategic business plan (SBP) proposal and we have moved £856m from the centre to the routes, as contingent asset management funding. This means more risks will be managed at a route level.

8.24 The allocation of the £2.3bn risk funding for England & Wales is therefore:

- route-controlled risk funding: £600m;
- contingent asset management funding: £856m; and
- centrally-controlled group portfolio fund (GPF): £856m.

8.25 We also consider the total risk funding of £284m (in 2017-18 prices) proposed by Network Rail for Scotland to be appropriate. Given that there are separate funding arrangements for Scotland and risk funding for Scotland will be ring-fenced from the amounts for the England & Wales routes, we have decided that all risk funding for Scotland should be held at route level and there will be no contingent asset management funding in Scotland. Some of this risk funding could be required for financial risks that materialise in central functions.

8.26 We have included contingent asset management funding in operating expenditure in our final determination in place of contingent renewals. If risk funding is not needed, it can be used to improve outputs such as projects to improve asset sustainability or train performance and it can also be used for R&D.

8.27 Network Rail has reviewed its allocation of risk funding across England & Wales routes and we have accepted the revised allocation.

Governance of risk funding

Draft determination approach

8.28 In our draft determination, we said that Network Rail is reviewing its proposed governance arrangements for risk funding. We said that we would work with Network Rail to develop these arrangements.

Consultation responses

8.29 In its response, Network Rail provided updated risk funding governance proposals for routes to: manage their own business plans; keep funds within their plan to manage risk; and give routes discretion on how to spend funds if risks do not materialise. It also confirmed that routes will have a role in decisions related to the use of GPF funds.

8.30 Network Rail said that projects take time to plan and deliver. Network Rail thought that it needs to make sure that GPF funding is released into route plans as soon as possible during CP6, so that it can use that funding to deliver additional outputs.

Our response

8.31 We have set out the principles that should apply to the governance of risk funding. Network Rail broadly agreed with our principles and it will incorporate them in its business planning guidelines.

8.32 Network Rail has identified how funding could be reallocated between routes and the centre to assist with the process of making sure that GPF funding is released into route plans as soon as possible during CP6, so that it can use that funding to deliver additional outputs. Any such changes will be subject to our Managing Change Policy.

Change of inflation indexation from RPI to CPI

Draft determination approach

8.33 In our draft determination, we proposed to change our method of indexation from RPI to CPI. We said that there should be limited impact on Network Rail.

Consultation responses

8.34 Network Rail accepted the change of the inflation measure to be used for indexation of track access charges from RPI to CPI. It stated that as a 'technical change' there should be a limited impact on its business.

8.35 Network Rail also accepted our proposal to take into account the differential between RPI and CPI in the final determination revenue requirement. It did, however, express concern that stakeholders may view a move to CPI as evidence that its costs move in line with this measure, resulting in pressure on ORR and Network Rail to agree to an unachievable efficiency challenge. It asked us to make it clear whether we think its costs move in line with CPI.

8.36 DfT was supportive of the change from RPI to CPI, but made clear that it should not result in the cash funding limit on network grant payments (referred to in the Secretary of State's SoFA) being breached.

8.37 Transport for Greater Manchester, TfL and Virgin & Stagecoach were all supportive of the change to CPI.

Our response

8.38 We will use CPI for the indexation of track access charges and payment rates in other mechanisms where we set the method of indexation in CP6 and we will adjust relevant charges for the RPI/CPI differential. More details are provided in our financial framework supplementary document and the supplementary document – overview of charges and incentives decisions.

8.39 Whether we link Network Rail's revenue to CPI or RPI, we expect Network Rail to manage its costs efficiently. It should not simply assume that costs change with reference to any index.

The RAB in CP6

Draft determination approach

8.40 In our draft determination, we said that we would maintain a RAB for CP6 for each geographical route and the SO, along with total values for England & Wales and Scotland. Provisional opening balances would be based on Network Rail's regulatory accounts as at 31 March 2018.

8.41 We also said that normal asset disposals during CP6 would reduce the RAB by the amount of the sales proceeds.

8.42 Additionally, we proposed the initial RAB balance should be £80m for the System Operator (SO) with an offsetting reduction to the value of routes' opening RABs.

Consultation responses

8.43 Network Rail agreed with our proposals on route and SO RAB balances.

8.44 Network Rail accepted the requirement to adjust the RAB to reflect the disposal of assets but it did not accept that this valuation should be based on sales proceeds. It considered that an estimated replacement cost basis scaled to the value of the RAB would be a more appropriate valuation basis. It argued this approach would drive behaviour that would maximise proceeds from disposals. It also argued that adjusting the RAB to reflect the sales price could cause an over or under adjustment that would impact its statutory accounts.

8.45 Additionally, Network Rail proposed a *de minimis* value for adjusting the RAB that it said should be set at the level of asset sales assumed within other single till income (OSTI). In the absence of this threshold, Network Rail highlighted a risk of double counting asset sales by adjusting the RAB downwards and also reducing the net revenue requirement by the sales proceeds of disposal. It also said that we should not double count the value of the asset sales in the final determination by including a forecast of CP6 asset disposals in OSTI and continuing to include the income from these assets in the income forecast.

Our views

8.46 We have considered the responses to our draft determination and have determined provisional opening route RAB values (as at 1 April 2019) for CP6 based on:

- the RAB balances included in Network Rail's regulatory financial statements as at 31 March 2018; and
- forecast information included in accounting updates provided to us by Network Rail.

8.47 Our determination of the provisional opening RAB balance for each route is set out in the relevant route settlement document together, with an indicative forecast value for each year of CP6, based on projected capital expenditure levels. The provisional opening values will be adjusted in Network Rail's 2019-20 regulatory accounts to reflect actual expenditure in 2018-19 in accordance with our regulatory accounting guidelines (RAGs).

8.48 We will include detailed provisions setting out how RAB values will be rolled forward from year to year in the RAGs that we will publish for CP6.

8.49 Network Rail identified that the combination of the two asset disposal policies set out above could reduce the incentives on Network Rail to make asset disposals. We have discussed this matter with Network Rail on a number of occasions[30]. We consider that the point it makes is only relevant if Network Rail was privately financed. Instead, as it is a public sector body, it has little or no effect. This is because Network Rail is not incentivised to increase the value of its RAB (unlike other regulated companies that are in the private sector). Instead, the key incentive on Network Rail in this area, is that asset sales are included in our financial

[30] More details of this can be found in our second consultation on the PR18 financial framework, March 2018.

performance measure so that they will affect scorecard performance and ultimately Network Rail's management and employee incentive plans.

8.50 We consider that Network Rail's proposed approach (as set out in its response to our draft determination) would overly complicate the asset disposal process, be less transparent than our proposed approach and provide little benefit as incentives would not be improved.

8.51 We have therefore decided to use our proposed approach for asset disposals. Similar to our position on some decisions on other financial policies, we will reconsider this approach if Network Rail's status or funding arrangements change in the future.

8.52 Network Rail also stated in its response that in calculating revenue requirements we should not include both the proceeds from the sale of an asset and the on-going rental income. We discussed this issue with Network Rail's property team in our review of its property income forecasts and it said that there was no double counting. This issue is complicated as specific assets are not usually included in the property sales forecast, and timing is a key issue as a property may be sold towards the end of a control period. So, even if an asset was sold it may have earned rental income for most of the control period. Therefore, judgement needs to be used. Overall, we thought Network Rail had made a reasonable assumption on the double-counting issue.

8.53 Forecast disposals will be treated as OSTI in our determination of revenue requirements.

Cost of capital

Draft determination approach

8.54 In our draft determination we proposed the following ranges for Network Rail's weighted average cost of capital (WACC) during CP6:

- 2.5% to 3.1% for real (RPI) vanilla WACC;
- 2.8% to 3.5% for real (RPI) pre-tax WACC; and
- 1.3% to 1.6% for real (RPI) pre-tax cost of debt.

8.55 We said that although a WACC would not be used in our revenue requirement calculations, we would still determine WACC values for Network Rail for the purpose of:

- showing what Network Rail's revenue requirements might be under a full WACC approach;

- calculating the cost of capital for facility charges payable by third parties who have promoted enhancements financed by the governments through Network Rail; and

- providing a benchmark discount rate/internal rate of return for internal projects (and other economic decisions) by Network Rail in CP6.

Consultation responses

8.56 Network Rail considered that its proposed ranges were still valid and should be the basis of our decisions. These were 2.8% to 3.4% for the real (RPI) vanilla WACC, 3.4% to 4.2% for the real (RPI) pre-tax WACC and 1.4% to 1.8% for the real (RPI) pre-tax cost of debt. It commented that the main time sensitive factor in the analysis carried out for them in summer 2017 by Oxera was the forward-looking debt premium element of the cost of new debt. It said that this implied CP6 forward interest rates have only fallen slightly since summer 2017.

Our views

8.57 We consider that the ranges we set out in our draft determination remain valid.

8.58 After considering Network Rail's response to our draft determination, we consider that the mid-points of our ranges are appropriate. This is particularly because compared to Network Rail's views we, in common with other regulators, think that the risk levels reflected in debt costs provided for regulated utilities have been systemically overestimated in the past.

8.59 Our final determination WACC values are as follows:

- 3.8% for real (CPI) vanilla WACC;

- 4.15% for real (CPI) pre-tax WACC; and

- 1.45% for real (RPI) pre-tax cost of debt. This is set with reference to RPI as Network Rail's contract with Crossrail uses RPI in the calculation of the CSAC.

Opex memorandum account

Draft determination approach

8.60 In our draft determination, we said we would no longer use an opex memorandum account to log-up specific funding shortfalls for remuneration at a subsequent periodic review[31]. This is because funding from DfT and Transport Scotland is at fixed levels for CP6.

[31] For example, relating to higher than expected business rates.

8.61 We said we would consider using an opex memorandum account again, if Network Rail, or a part of it, were at some point to be privately financed or its funding structure changed.

Consultation responses

8.62 Network Rail accepted our position that the opex memorandum account will no longer be used to log-up payments for future periods due to the governments funding levels now being fixed. It proposed to continue to take account of logged up values for its financial performance reporting purposes.

Our response

8.63 We confirm that we will not use an opex memorandum account in CP6.

Central cost allocations

Draft determination approach

8.64 We did not propose making any specific changes to Network Rail's cost allocation approach in our draft determination. However, we said that we would carry out a limited but more detailed review of central cost allocations before our final determination.

Consultation responses

8.65 Network Rail stated that it will continue to identify ways to devolve services to routes in order to charge costs directly. It said that it was also working with stakeholders to review its methodology in order to further inform our final determination.

8.66 DfT said that the central cost allocation should not be changed in our final determination. If cost allocation is revisited, it said this it should be done early in the next periodic review ahead of the SoFA for CP7.

8.67 Transport Scotland requested further work to be undertaken to examine the extent of contestability and challenge by the Scotland route on central costs. In advance of CP7, it requested a more detailed bottom up model for cost allocation rather than using allocation methods such as track miles or headcount.

8.68 Transport Scotland also emphasised the importance of monitoring the allocated route spend in detail during CP6. To do so, it has requested details of each central cost item attributed to the Scotland route in advance of CP6.

Our response

8.69 We agree with Transport Scotland that it is important to monitor spend that is allocated to routes in CP6 and we will do that. We also agree that the Scotland route should challenge the central cost allocations.

8.70 Following our draft determination, we had detailed discussions with Network Rail, DfT and Transport Scotland on the allocation of costs to routes, with a particular focus on Scotland. The result of these discussions was that we thought overall Network Rail had taken a reasonable approach to the allocation of central costs across routes in its SBPs.

8.71 Reflecting Network Rail's commitment to continuous improvement in this area and the importance of route regulation, we expect Network Rail to keep the methods it uses under review in CP6 and where appropriate update its methodology, for example, where better data is available. We would discuss the implications and timing of any potential changes to the methodology with Network Rail's routes and centre, DfT and Transport Scotland.

Re-opener provisions

Draft determination approach

8.72 Franchised passenger track access contracts in CP5 contain a provision allowing ORR to carry out an interim access charges review ahead of the next scheduled periodic review if certain criteria are met. This is commonly referred to as a re-opener provision. In our draft determination, we proposed that these provisions should be retained.

Consultation responses

8.73 Network Rail welcomed our proposal to retain the re-opener provisions. In the absence of this clause, Network Rail said it would require additional funding to cover all possible risks that may arise.

8.74 Other respondents largely agreed with our proposals.

Our response

8.75 Having considered responses to our draft determination and to our July 2018 consultation on implementing PR18 (available here), we have decided to retain the re-opener provisions in track access contracts for CP6. This is because they provide an important mechanism that allows us to work with the governments, Network Rail and industry stakeholders to change the terms of our determination of track access charges if material unforeseen circumstances were to arise during a control period.

8.76 Some of the respondents to our draft determination have suggested that there should be a specific schedule 8 re-opener. Our views on this are included in Chapter 9 of our PR18 final determination – Overview of approach and decisions document.

Financial indemnity mechanism (FIM) fee

Draft determination approach

8.77 In our draft determination, we said that we would consider whether to propose a change to the fee payable by Network Rail for the financial indemnity of its private sector debt by the UK Government. This is currently 1.1% (on an annual basis) of the daily outstanding amount of indebtedness incurred by Network Rail Infrastructure Finance plc that is supported by the indemnity.

Consultation responses

8.78 Network Rail did not think that the FIM fee was necessary in CP6 but if a monetary payment had to be made to DfT, it considered that a simpler process for doing so could be implemented. If an indemnity fee was required, Network Rail said that it considered 1.1% was still an appropriate value for CP6.

Our response

8.79 In light of subsequent discussions with DfT, it is not yet clear whether the FIM fee is necessary for CP6. We will not make a final decision on this until we have updated views from DfT on the relevance of the fee going forward.

8.80 If we retain the requirement, the fee would continue to be 1.1% (on an annual basis).

Calculation of revenue requirements

Draft determination approach

8.81 In our draft determination, we set out the format that we expected to use for our final determination of revenue requirements for the geographical routes, the FNPO route, and the System Operator.

Consultation responses

8.82 Network Rail welcomed our requirements for a 'full' revenue requirement presentation for each geographical route, FNPO and SO. It also highlighted that certain costs that are outside of the scope of the SoFA were not covered in our proposed presentation. This included areas that it deemed necessary for both ORR and funders understanding of its business, including financing costs, British Transport Police costs and corporation tax.

8.83 Network Rail requested that its broader cost and income base should be set out in the presentation of our final determination revenue requirements to provide transparency on its overall financial position.

Our response

8.84 We have updated our approach to incorporate the majority of Network Rail's comments and non-SoFA expenditure is identified.

HLOS affordability

8.85 As part of the periodic review, we have to consider whether there are sufficient funds available in the SoFAs to deliver what each relevant government wants delivered in the control period as set out in the HLOSs.

8.86 In our draft determination, we said that we considered that both the Secretary of State's and Transport Scotland's HLOSs were affordable.

Consultation responses

8.87 In its response, Network Rail said that it considered that both the Secretary of State's and Scottish Ministers' HLOSs are affordable.

8.88 Transport Scotland was concerned that we were not in a position to provide an opinion on HLOS affordability due to questions around the completeness of the SBP provided by Network Rail.

Our response

England & Wales

8.89 The Secretary of State's SoFA set out the funding for Network Rail in CP6. As shown in the table in our final determination overview document, we consider that Network Rail's expenditure requirements in respect of the outputs required in the HLOS can be met by the funding in the Secretary of State's SoFA. As such, we consider that the HLOS is affordable.

Scotland

8.90 The Scottish Ministers' SoFA covered not just Network Rail's OSMR but also included some funding for railway improvements but did not include other non-Network Rail income and expenditure. These improvements are not restricted to enhancements on Network Rail's network but could also include improvements to non-Network Rail parts of the railway in Scotland. For example, service based and/or rolling stock solutions. The approach to investment will be governed by the Scottish Government's Rail Enhancement and Capital Investment Strategy.

8.91 For our affordability assessment, we only needed to consider Network Rail's OSMR plan (net of OSTI). But to do this we required clarity from Transport Scotland about how much funding in its SoFA was for Network Rail's OSMR (net of OSTI). Transport Scotland confirmed before the draft determination that the funding available for enhancements and other industry improvements on the railway in Scotland will be the balance left in the SoFA after our assessment of the costs of Network Rail's OSMR (net of OSTI).

8.92 In our assessment, we have found that there is significantly more funding available in the SoFA than Network Rail's forecast OSMR expenditure in Scotland. We therefore think that the outputs required by Transport Scotland's HLOS are affordable.

8.93 There are some HLOS requirements that Network Rail has not costed yet, e.g. the gauging strategy. This is because how Network Rail intends to deliver these requirements will not be clear until it provides its plans to ORR in November 2018[32].

8.94 In addition to the steps that Network Rail will take during CP6 as business as usual to deliver these requirements, it may identify enhancement opportunities, for example, to deliver journey time improvements. Such enhancements would need to go through the CP6 enhancements pipeline process and the Scottish Ministers would decide whether or not they are funded.

8.95 Transport Scotland considers that the gauging strategy for Scotland should be dealt with as part of the day job and therefore included within the CP6 funding envelope for OSMR, particularly given its obligations requiring it to maintain the capability of its network.

8.96 However, Network Rail has not included the cost of delivery of the gauging strategy in its SBP[33]. As Network Rail is not yet in a position to confirm costs for delivering the gauging strategy it cannot be funded from the OSMR envelope included in our final determination, as the costs are not yet known. Instead, these costs can be funded from the balance that is available in the SoFA.

8.97 Once better cost estimates are available, the Scotland route will present its case for funding the Scottish gauging strategy to Transport Scotland and it will decide whether to provide these funds. If Transport Scotland does not provide the incremental

[32] The current expectation is, however, that apart from delivery of the Scottish gauging requirement, all other requirements will not incur additional costs.

[33] A thorough review of the whole of the Scottish network was required in order to provide estimated costs for this work, which could not be completed in advance of the final determination. The process of the Scotland route reviewing what work is required, and then consulting on that proposal, will provide more accurate cost estimates. We will also undertake further analysis of the Scotland route's plan for the gauging strategy, once it has provided its draft proposals. If necessary, we will commission an independent review of Network Rail's plans and proposed costs to provide assurance to Transport Scotland and other stakeholders.

funding from the SoFA balance (i.e. in addition to the OSMR envelope in our final determination). Then the Scotland route would not be required to deliver it.

Efficiency and financial performance monitoring

Draft determination approach

8.98 In our draft determination, we said that we would monitor and report on each of the routes'/the SO's financial performance and efficiency to provide further incentives on the routes/the SO to improve their financial performance.

Consultation responses

8.99 Network Rail requested that the term "cost efficiency" should be replaced with a "cost movement index" to differentiate between cost movements due to efficiency changes, e.g. introduction of new technology such as rail milling, and other factors.

8.100 Network Rail also had concerns about using CPI to uplift cost baselines, e.g. it would make comparisons with CP5 harder.

8.101 Network Rail suggested that fishbone analysis should be used to identify variances between CP5 and CP6 costs. It said that this analysis should include asset management and accounting treatment policy changes and be clear how variances impact the baseline for CP6.

Our response

8.102 We do not think that it would aid transparency to introduce new phrases like "cost movement index" to the way that we report on Network Rail's efficiency and financial performance. Instead, we think it is more important to focus on explaining Network Rail's efficiency and financial performance in the context of how its total costs have changed.

8.103 Network Rail's preference for us to maintain RPI as the reference point for our efficiency reporting is not consistent with the move from RPI to CPI in CP6. If we did use its suggestion and retained RPI for this purpose, the same issue it has outlined would arise in CP7. This is because at some point if we are using CPI we need to make this change. We think it is better to make the change at the same time as we change the indexation of charges, otherwise it would add unnecessary confusion.

8.104 We agree with Network Rail that its proposed fishbone analysis should be used to explain the reasons for cost variances, including due to changes in efficiency. We will continue to work with Network Rail to agree how this should be presented and will finalise our approach in our CP6 regulatory accounting guidelines.

9. Charges and Incentives

Overview

Chapter 9 of our draft determination overview[34] set out the PR18 approach to reviewing contractual charges and incentives and summarised our proposals on infrastructure cost charges (ICC) and the variable usage charge (VUC). This chapter was supported by supplementary documents that set out a summary of all the charges and incentives decisions we had taken to date[35], as well as more detail on our ICC and VUC proposals[36].

This chapter provides a summary of the main concerns raised by stakeholders in their responses to these documents, and our response to those concerns.

Approach to the review of charges and incentives

Priorities in PR18 and PR23

9.1 A number of responses raised concerns about our decision not to more thoroughly review Schedules 4 and 8 as part of PR18. Several responses also suggested priority areas for review in PR23.

Our response

9.2 Early in the review, and following consultation, stakeholders indicated that both Schedule 4 and 8 were broadly fit for purpose. In light of this feedback we elected to prioritise areas of the charges and incentive regime that were in need of more urgent review, such as the efficient recovery of infrastructure costs from operators. We nonetheless proposed a number of improvements to Schedules 4 and 8 during PR18, with a view to refining these regimes.

9.3 It is worth noting that in 2019 we will be taking work forward on a review of delay attribution (see chapter 10 of the overview document). This can happen outside of the periodic review process and should help strengthen the scope for revisions to Schedule 8 in the 2023 periodic review (PR23).

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[34] *2018 periodic review final determination: Overview of approach and decisions*, ORR, October 2018. This may be accessed here.

[35] *2018 periodic review final determination: Supplementary document – Overview of charges and incentives decisions*, ORR, October 2018. This may be accessed here.

[36] *2018 periodic review final determination: Supplementary document – Charges and incentives: Conclusions to consultation on infrastructure cost charges*, ORR, October 2018. This may be accessed here. And

2018 periodic review final determination: Supplementary document – Charges and incentives: Conclusions to consultation on variable usage charges, ORR, October 2018. This may be accessed here.

9.4 We have noted the other suggestions for PR23 and we will seek industry views on priorities for PR23 as we begin work on it.

Infrastructure cost charges

9.5 In our June 2018 consultation, we set out final proposals on several outstanding areas of our approach to infrastructure cost charging. We received many responses from stakeholders on these proposals. We took these responses into consideration in arriving at our final decisions, which are set out in our ICC conclusions document[37]. Below we set out our responses to the key issues that stakeholders raised. Specifically:

- how we took into account the increase in the VUC when determining our proposed ICC levels;
- for freight operators:
  - whether freight services carrying ESI biomass can bear an ICC; and
  - whether to phase in ICC for services carrying ESI biomass;
- for open access operators:
  - the details of implementation;
  - the level of the ICC;
  - the phase-in profile; and
  - the treatment of recently approved open access services; and
- for franchised passenger operators:
  - measuring timetabled train miles and setting timetabled traffic baselines; and
  - re-opener for timetabled traffic baselines.

How we took into account the increase in the VUC when determining our ICC proposals

9.6 Many open access and freight stakeholders were concerned about how we determined the overall levels of the ICCs proposed in the draft determination.

9.7 Several respondents were concerned about whether the level of the ICC for freight services took into account the increase in the VUC. Some were concerned specifically about the increase in the VUC paired with levying a charge on ESI biomass.

[37] *2018 periodic review final determination: Supplementary document – Charges and incentives: Conclusions to consultation on infrastructure cost charges*, ORR, October 2018. This may be accessed here.

9.8 Network Rail and Grand Union Trains (Grand Union) requested more clarity on how the level of the charge was determined for open access services. They were particularly concerned with how we took into account the removal of the capacity charge and the increase in the VUC from CP6.

Our response

9.9 As stated in our June 2018 consultation released alongside the draft determination[38], our decision on the levels of the ICCs reflected both what the market can bear[39] and the level of other charges in CP6.

9.10 We also stated that we would revisit the ICC levels before the final determination to take into account changes to charges during the recalibration process. In the final determination, the open access ICC remains unchanged and the freight ICCs have been adjusted marginally to take into account changes in the VUC. More information is outlined in the ICC conclusions document released alongside the final determination[40].

Freight

Whether freight services carrying ESI biomass can bear an ICC

9.11 Drax Power Limited (Drax), DB Cargo and GBRf did not support our proposal to allow Network Rail to levy charges on freight services carrying ESI biomass. GBRf stated that it was not convinced we had undertaken meaningful work to understand whether the industry could bear the increased costs. It did not comment on the analysis undertaken by MDS Transmodal (MDST) on the impact of increases in track access charges on the transport by rail of biomass[41].

9.12 Drax and GBRf reiterated that levying charges on freight services carrying ESI biomass may result in:

- an increased cost of biomass for end-users, making it less competitive compared with coal and gas and possibly making it more difficult for the industry to remain viable following the removal of renewable support in 2027;

[38] *2018 periodic review draft determination: Supplementary document – Charges and incentives: Infrastructure cost charges consultation*, ORR, June 2018. This may be accessed here.

[39] *PR18 Structure of charges review – Market can bear analysis: Passenger services*, Cambridge Economic Policy Associates & Systra, September 2017. This may be accessed here.

PR18 Structure of charges review – Market can bear analysis: Freight services, Cambridge Economic Policy Associates, September 2017. This may be accessed here.

[40] *2018 periodic review final determination: Supplementary document – Charges and incentives: Conclusions to consultation on infrastructure cost charges*, ORR, October 2018. This may be accessed here.

[41] *The potential impact of increases in track access charges on the transport by rail of biomass*, MDS Transmodal, April 2018. This may be accessed here.

- biomass being ‘priced-off’ the rail network over time; and
- a poor signal to other industries that may want to invest in rail freight infrastructure.

Our response

9.13 We have considered all responses regarding the potential effects of charging an ICC on freight services carrying ESI biomass. Responses to the June 2018 consultation did not present new information about whether the industry could bear an ICC. In addition, only two responses made brief reference to analysis undertaken, and none addressed the MDST work. As a result, we still consider that freight services carrying ESI biomass can bear an ICC.

Whether to phase in ICCs for services carrying ESI biomass

9.14 Drax proposed that the ICC on ESI biomass (if it were to be introduced) should be phased in with a similar profile to that used for the introduction of the freight specific charge (FSC) for ESI coal, spent nuclear fuel, and iron ore in CP5. It suggested that a phase-in period would allow the industry time to re-negotiate with its suppliers including ports and freight operating companies. See Table 9.1 for our calculation of the phase-in profile.

Table 9.1: Phase-in profile for ESI biomass in CP6

	2019-20	2020-21	2021-22	2022-23	2023-24
Percentage of ICC	0%	0%	20%	60%	100%
ICC level (£/kgtm)	0	0	0.29	0.87	1.45

Note: kgtm = thousand gross tonne miles.

Our response

9.15 We agree with Drax’s proposal for ICCs for ESI biomass to be phased-in over CP6. Despite our analysis supporting that freight services carrying ESI biomass can bear increased charges, the introduction of an ICC would be a significant increase in rail charges for those services.

9.16 Introducing the charge in full from the start of CP6, would mean the industry would have less time to react and renegotiate supplier contracts. The implementation costs of this charge would also likely be significantly higher should it be introduced immediately.

9.17 We also consider it reasonable that the proposed phase-in profile is the same as that applied to other commodities when the FSC was introduced in CP5. This profile was developed during PR13 to give the businesses affected time to adapt to the change.

Open access operators

The details of implementation

9.18 Many stakeholders were concerned about the lack of detail we have released to date about: the definition of the interurban market segment; what constitutes a significant variation for existing open-access services; and the nature of the changes that would be made to the 'not primarily abstractive' (NPA) test and access policy.

9.19 Network Rail and Arriva expressed concern about the effect that this lack of information would have on the ability of both current and potential open access operators to make decisions.

9.20 Network Rail, RDG and several other stakeholders[42] requested more clarity about:

- the definition of the interurban market segment and what constitutes significant variation of access rights for existing operators;
- the changes to access policy, including potential changes to the NPA test; and
- the effect of the economic equilibrium test (to be introduced in early 2019).

9.21 Network Rail, First Rail Holdings, GO-OP Co-operative Limited (GO-OP), and Virgin & Stagecoach made specific suggestions regarding how we should address each of these areas.

Our response

9.22 We will be consulting on implementation issues for levying an ICC on new interurban open access services towards the end of 2018. This will allow new or emerging operators sufficient time to understand policy implementation before incurring significant sunk costs such as the procurement of rolling stock. It should also give us time to conclude on policy by the beginning of CP6. We are taking into consideration all relevant concerns and suggestions made by respondents as we develop our policies.

9.23 We will also ensure that our policies adhere to legal requirements including discrimination concerns and outcomes from any relevant case law. We will continue to consult both formally and informally with industry throughout this process.

9.24 We have now largely clarified how the ICC would apply should a service not clearly fall in either the interurban or other market segments. A service would not attract an ICC if it calls at one interurban station but is not scheduled to stop at any other interurban destinations. If the service stops at more than one interurban station, the

[42] Arriva, First Rail, GO-OP, Grand Union, Open Access Rail, and Northern.

ICC (i.e. £4 per train mile) would only be levied on the journey between the two most distant interurban stations; it would not be levied on the whole service. However, a service that starts and finishes at interurban stations would have the charge levied for the whole service, even if it stops at rural or suburban stations along the way.

The level of the ICC

9.25 Respondents were mixed in their support for the level of the ICC for new open access services falling inside, or partly inside, the interurban market segment. Network Rail, LNER and GO-OP were generally supportive of the ICC level we proposed in the draft determination, stating that it appeared reasonable based on their knowledge of charges for similar services.

9.26 However, RDG, Arriva, First Rail, and Virgin & Stagecoach argued that the charge was too high and that this could result in either new open access services being priced out of the market, or Network Rail giving preference to open access services when granting access rights.

Our response

9.27 One of the outcomes of CEPA/Systra's work was a conservative estimate of the total amount an open access intercity or long-distance commuter service could pay in addition to its current variable charges: £6 to £7 per train mile excluding the capacity charge. As stated in our June 2018 consultation on the VUC[43], open access services are not forecast to incur a material increase in their total variable charges. The increase in the VUC, on average, offsets the removal of the capacity charge.

9.28 After considering this information, we determined that £4 per train mile was a conservative estimate of what new open access services in the interurban market segment could bear.

9.29 In the draft determination, we also stated we would revisit this level before the final determination to take into account changes to charges during the recalibration process.

9.30 We are mindful of the risks associated with setting the ICC level too high or too low. Our approach has been cautious when balancing these risks.

9.31 Considering this additional analysis, we have determined that £4 per train mile is still an appropriate charge.

[43] *2018 periodic review draft determination: Supplementary document – Charges and incentives: Variable usage charge consultation*, ORR, June 2018. This may be accessed here.

The phase-in profile for ICCs

9.32 Respondents were largely supportive of phasing in ICCs for new open access services in the interurban market segment. Network Rail and GO-OP stated that the phase-in profile should be available to new services offered by existing operators. Network Rail suggested that not extending the phase-in to new relevant services run by existing operators may be discriminatory.

9.33 GO-OP and Virgin & Stagecoach suggested that a bespoke phase-in profile should be applied to new services, based on assumed profitability. DfT stated that it would like new interurban open access services to pay an ICC from year two of operation (at 10% of the full rate)[44].

Our response

9.34 Determining the phase-in rate requires a compromise between the potential negative effect of additional charges on new open access services and the benefits of securing some recovery of fixed costs from these operators (including the potential for the latter to support greater levels of on-rail competition in the longer-term).

9.35 We appreciate the breadth of comments regarding our phasing-in proposals for ICCs on new interurban services. We have considered the comments and suggestions made by respondents, but have decided not to change the phase-in profile proposed in the draft determination.

9.36 The phase-in period is designed to allow new entrants time to build up their businesses. It is applied to new operators because the risks faced by these operators are higher than for existing operators making adjustments to their services. Reflecting this, we do not consider that existing operators should benefit from a phase-in profile. Because of the different market positions of new and existing operators underlying our decision to phase-in charges, we do not consider this treatment unduly discriminatory.

9.37 We also consider that a bespoke phase-in profile would complicate the financial forecasting and access decision-making, while also introducing uncertainty into the assessment of business cases by aspirant open-access operators. We are also mindful of the higher risk that this approach could be discriminatory.

[44] We proposed that an in-scope interurban service would start paying a proportion of its ICC from year three.

The treatment of recently approved open access services

9.38 Two new services, First Rail's London to Edinburgh service and GNWR's London to Blackpool service, have had access applications approved since we set out our intention to review charging for open access services in late 2015.

9.39 Several respondents were concerned about how these services would be treated in the new charging regime. Network Rail and First Rail both suggested changes to the distinction between new and existing services. Both definitions would result in First Rail's service being reclassified as an existing service. Network Rail's definition would also result in GNWR's service being classified as an existing service. First Rail was particularly concerned that it had been granted access rights under the more strict existing policy, but was expected to pay charges as if the rights were granted under the new access policy.

Our response

9.40 When First Rail's London to Edinburgh service and GNWR's London to Blackpool service had their applications approved, we set out clearly that neither should assume that they would be protected from changes to the charging regime[45]. We have considered the arguments put forward but maintain that the position set out in our draft determination is appropriate.

9.41 However, we appreciate their concerns and have since worked to give both operators more clarity about how the ICCs might apply to their services. We have also agreed to revise the dates in their track access contracts by which they need to sign the rolling stock contracts. This means that these operators will be able to avoid incurring the sunk costs associated with rolling-stock purchase/lease before they have a better understanding of the ICC that may apply to their services in CP6.

9.42 Noting this, both services will still be considered as new services and therefore in scope for being charged ICCs should the service fall, or partly fall, within the definition of the interurban market segment.

9.43 However, we do recognise that both services were granted access rights in line with our previous policy. In this context we note that, in common with all operators, these two operators would be able to apply for additional rights and any such application would take into account their contribution to fixed costs on the railway.

[45] *Decision letter: Applications for access to the East Coast Main Line (ECML),* ORR, 12 May 2016. This may be accessed here.

Decision letter: Application for a new track access contract for services between London Euston and Blackpool North, ORR, 7 June 2018. This may be accessed here.

Franchised passenger operators

Measuring timetabled traffic and setting timetabled traffic baselines

9.44 Network Rail has identified its Schedule 4 Compensation System (S4CS) as the most robust system to measure operators' annual timetabled train miles. However, Network Rail explained that more work is required to confirm if the S4CS data is suitable.

9.45 To set the timetabled traffic baselines for each franchised passenger operator, Network Rail said in response to our June 2018 consultation that it considers its latest risk-adjusted forecast as the most appropriate forecast to use. This is due to the significant level of uncertainty in the levels of timetabled traffic over CP6.

Our response

9.46 On the approach for measuring franchised passenger operators' timetabled traffic in CP6, we need further assurances that the S4CS is robust enough to use for the annual adjustment to franchised passenger operators' ICCs. Network Rail has confirmed that S4CS is independently audited to check that Schedule 4 compensation payments to train operators accurately reflect their track access contracts. Network Rail is carrying out further checks to confirm that the timetabled train miles data in S4CS is sufficiently robust for setting franchised passenger operators' ICC baselines in CP6..

9.47 Since its response to our June 2018 consultation, Network Rail has discussed with us in more detail possible approaches for setting timetabled traffic baselines. Network Rail's preferred approach is to use timetabled train miles from the S4CS for either 2018-19 or 2019-20 and apply its traffic growth forecasts for each year of the control period. We will continue to work with Network Rail to develop the best available approach for forecasting franchised passenger operators' timetabled traffic in CP6. When a robust approach has been developed, franchised passenger operators will be consulted on their timetabled traffic baselines for CP6. For further information on this work see Chapter 10: next steps in the PR18 Final determination – overview of approach and decisions document, available here.

Re-opener for timetabled traffic baselines

9.48 In response to our July 2018 consultation on implementation[46], Network Rail proposed including a re-opener provision in franchised passenger operator track access contracts for timetabled traffic baselines. This proposal was also discussed in its response to our June 2018 consultation. Network Rail considers a re-opener provision necessary to amend franchised passenger operators' timetabled traffic

[46] *Implementing PR18: consultation on changes to access contracts*, ORR, July 2018. This may be accessed here.

baselines for transfers of services between operators and for material errors in the forecasts of timetabled traffic.

Our response

9.49 We consider that a re-opener provision should not be included in the franchised passenger operator model track access contract for timetabled traffic baselines. We recognise that the timetabled traffic baselines may need to be amended during CP6 to reflect franchise changes, however any such amendment can be addressed through the section 22 change procedure for the relevant track access contracts as currently happens on franchise changes. In terms of a re-opener provision for errors in the timetabled traffic baselines, there are no similar provisions for errors in other charges or incentives and we do not consider it appropriate to include a re-opener provision for timetabled traffic baselines errors.

Fixed track access charge for TfL concessions

9.50 In response to our June 2018 consultation, Transport for London (TfL) raised the concern that the fixed track access charge (FTAC) will increase for its concession operators because Network Rail's new cost allocation methodology allocates a higher proportion of Network Rail's fixed costs to urban services. TfL holds its concession operators neutral to changes in track access charges at each periodic review.

9.51 In a separate letter submitted to us in October 2018 TfL explained that it is unable to mitigate increases in FTAC and requested that it be exempted from these increases for CP6.

9.52 The main reason TfL provided in its letter for not being able to mitigate any increase in FTAC is that it no longer receives an annual operating grant from DfT. In addition, TfL said that because a large proportion of its costs are fixed it has limited ability to reduce costs through reducing services. Moreover, TfL explained that due to relatively slow growth in demand it is unable to generate additional fare revenue to offset any increases in charges.

Our response

9.53 We recognise that TfL has limited ability to mitigate any increases in the cost of holding its concession operators neutral to changes in track access charges at PR18, however, we do not consider that TfL should be exempted from increases in FTAC for CP6.

9.54 Although our decision to use Network Rail's new cost allocation methodology, excluding the elements that allocate non-avoidable costs to services, is likely to increase FTAC for TfL concessions, it is important to note that other decisions we have made as part of PR18 will have a positive financial impact on TfL. In particular, we expect the decision to use a lower cost of debt for Crossrail than the assumption we had in CP5[47] to more than offset any increase in the FTAC for TfL concessions. In addition, the decision to remove the capacity charge will also partly offset the increase in FTAC for TFL concessions.

Stations charges

9.55 MTR Crossrail and Nexus raised questions about the methodology that Network Rail developed for recalibrating the long-term charge (LTC) at franchised stations. Both asked for clarity on whether the methodology had taken account of circumstances that are unique to the stations they serve.

9.56 In addition, Nexus asked for more information on why the new methodology had resulted in a large increase in the LTC for Sunderland station.

Our response

9.57 Network Rail, as the lead for the recalibration of the LTC, is better placed to answer detailed questions about the new methodology. We consequently referred these questions on to Network Rail and it has since followed them up with MTR Crossrail and Nexus.

Variable usage charge

9.58 The cost of repairing the wear-and-tear that train operators cause to the network is now significantly higher than the charges levied to meet these costs. Without mitigation, the VUC would increase materially in CP6, to cover these higher costs.

9.59 After consideration of our statutory duties and the relevant UK and EU legal requirements, we proposed in our June 2018 consultation to cap/phase-in the increase in variable network access charges for freight and charter operators so that variable usage charges only increase to reflect the full costs of wear-and-tear on the network towards the end of CP7. The policy would mean that, on average, total variable charges would remain flat (in real terms) for freight and charter operators for two years and then increase (on a straight-line transition profile) from the third year of CP6, achieving full cost reflectivity at the end of CP7.

9.60 When considering the capping/phasing-in of charges for the draft determination, we had particular regard to the impact on train operators' total variable charges. In particular, we took into account the impact of our earlier decision to remove the

[47] We did not publish a CP5 cost of debt for the investment framework because apart from Crossrail, the framework uses a pre-tax cost of capital. Our supporting information to our PR13 determination included a cost of debt assumption that was consistent with our pre-tax cost of capital.

capacity charge and the coal spillage charge in CP6, as well as our decision to use CPI to index charges instead of RPI.

9.61 Further detail on our proposed policy can be found in our June 2018 'Variable Usage Charge' consultation, and the supporting draft impact assessment.

9.62 Responses to the consultation were received from a wide range of stakeholders with a particularly high concentration of comments from rail freight industry participants.

9.63 Both Network Rail and DfT were supportive of our capping/phasing-in proposal for freight and charter operators. Network Rail commented that the proposal struck a reasonable balance between maintaining a stable 'package' of charges for freight and charter operators, whilst continuing to move towards operators paying cost reflective VUCs. DfT was pleased that the short term impact of increases in charges would be limited through the phasing-in of the increases over two control periods but considered that the capped operators should move towards paying an appropriate share of their costs over time.

9.64 However, a number of concerns were also raised by respondents, particularly by freight operators. In this section we summarise the issues raised and set out our response for each.

Potential for modal shift from rail to road

9.65 Freight respondents all said that the proposed increase in charges will cause the rail freight sector to become less competitive, resulting in modal shift from rail to road. Concern was expressed over our consideration of this issue – specifically that we may have underestimated the extent, or failed to consider the effect, of this issue in our draft determination.

Our response

9.66 In our draft determination proposal, we recognised that higher charges may impede rail freight volumes and result in modal shift from rail to road. In our impact assessment we also considered the wider external negative impacts (including on the environment, productivity and safety) that might arise as a result of a reduction in rail freight traffic volumes. In formulating our capping/phasing-in policy proposal, these impacts were taken into account and balanced against our wider statutory duties and the requirements of the relevant UK and EU legislation. Please see below for further comment on the issue of modal shift at a freight commodity level.

Concern about evidence from 2012

9.67 A number of freight operators challenged the approach we took when considering the issue of modal shift in our draft determination. In particular, our reference in our impact assessment to the findings of the 2012 MDS Transmodal (MDST) study. It was noted that a number of the underlying assumptions underpinning the MDST study (including freight traffic mix) were no longer valid. Freight respondents indicated that they had commissioned MDST to update the 2012 analysis and would share the report with us shortly after its completion on 14 September 2018.

Our response

9.68 The reference to the MDST 2012 analysis in our impact assessment was used only to help to indicate the scale of the impact on traffic volumes as a result of an increase in charges, including at a freight commodity segment level.

9.69 As outlined above, the impact on freight volumes is one of a number of important impacts that need to be considered when assessing the appropriate level of capping/phasing-in of charge increases and we did not rely solely on this specific piece of evidence when reaching a view on the overall impact of modal shift, or when constructing our capping and phasing-in proposal.

9.70 While we were prepared to consider any new evidence available, we note that the referenced refreshed MDST work has not been submitted to us.

Variability of capped VUC rates between commodities

9.71 Freight respondents were also concerned that the average rate increases presented in our draft determination concealed significant variability in rates, with some vehicles and commodity segments facing rate increases much higher than the average.

Our response

9.72 As we stated in our draft determination, we were aware that there would be differential impacts at a commodity level, due to the combined effect of the PR18 recalibration and the unwinding of CP5 capping arrangements.

9.73 Different types of vehicles/commodities impose different degrees of wear-and-tear costs on the network and it is important that over time variable charges reflect this as part of a cost reflective charging regime. In addition, our capping/phasing-in transition profile acts to moderate the rate of increase in rates to uncapped levels for all freight VUC rates.

9.74 We have analysed the potential impact of the proposed (draft price list[48]) increases in variable charges in CP6 across the various freight commodity segments. The implied impact of the higher charges on traffic in CP6 was calculated based on each commodity segment's elasticity (MDST, 2012) and compared to the forecast traffic growth for that commodity segment (MDST, 2017). The proposed increase in total variable charges is not expected to result in a material contraction of any of the

[48] Network Rail's July 2018 draft CP6 price lists consistent with the draft determination.

freight commodity segments. The phasing-in and capping will prompt higher rail freight volumes than would otherwise occur, while more extensive capping/phasing-in would increase this further.

9.75 Our proposed charges strike an appropriate balance between the impacts on operators and on rail freight growth, and the benefits of charges moving credibly towards cost-reflectivity over time.

Consistency of VUC increases with government policy

9.76 Freight respondents flagged the importance for the VUC capped transition profile to take into account wider government freight policy decisions. Specifically, respondents quoted both DfT's and Transport Scotland's respective published policy documents and queried whether our proposals go against government policies aimed at promoting rail freight.

Our response

9.77 As outlined in our draft determination, the aim of our capping and phasing-in policy proposals was to strike the right balance between our statutory duties and to also comply with both the EU and UK legislative requirements. We also had regard to wider government policies that affect rail freight as outlined in our impact assessment.

9.78 In reaching our decision, we particularly considered both DfT and Transport Scotland's position about the benefits of keeping charges to some train operators at a sustainable and predictable level.

Consideration of ORR's statutory duties

9.79 Referring to the increase in track access charges over CP6, Rail Freight Group (RFG) pointed out that the "Delivery of ORR's General Objectives" section in our impact assessment document did not include the duty to "promote the use of the network for the carriage of goods". RFG questioned how our draft determination draft decisions could be reconciled with this duty while they are susceptible to lead to a reduction in the volumes of rail freight.

Our response

9.80 The 'General Objectives' within the impact assessment represent PR18 objectives rather than ORR statutory duties. "Promote the use of the railway network in Great Britain for the carriage of passengers and goods, and the development of that railway network, to the greatest extent that it considers economically practicable" is an ORR statutory duty which has been considered and balanced alongside our other duties when formulating our PR18 objectives and was considered when reaching our capping/phasing-in policy position.

Alternative transition profile

9.81 While freight respondents broadly acknowledged the need to work towards a charging regime that achieves full cost reflectivity, they did not support our proposed transition profile to achieve this (flat average rates for the first two years of CP6, then a straight-line transition increase until the end of CP7). Respondents argued that our proposed transition profile was too steep (charges increasing too quickly) and instead a proposal was made via RDG that charges be capped at CPI+1% until full cost recovery is achieved. Freightliner noted that other options such as a 15 year transition period may also offer less damaging alternatives.

Our response

9.82 When developing our proposed capping/phasing-in policy we considered a wide range of transition profiles including over three control periods.

9.83 The trajectory of our proposed transition profile to cost reflective charging (as required by the relevant legislation) has been set in light of our statutory duties and in order to strike an appropriate balance between the impacts on operators and on rail freight growth, and the benefits of charges moving credibly towards cost-reflectivity over time.

9.84 We have carefully considered the comments made by respondents. However, the responses did not include any material new evidence or arguments. We have therefore decided to retain the transition profile outlined in our draft determination.

Approach to adjusting CP6 charges following the removal of the capacity charge and coal spillage charges

9.85 DB Cargo commented on the mechanics of the VUC capping/phasing-in approach used to take into account the removal of the capacity charge and coal spillage charges in CP6. It suggested that the increase in VUC to offset the removal of the coal spillage charge should be recovered only from those ESI Coal operators that are currently subject to it. DB Cargo added that the revenue currently collected through the capacity charge should be recovered through an ‘across the board’ increase in VUC rates in CP6 to reflect the fact that the capacity charge revenue in CP5 is being recovered from every freight train irrespective of vehicle type.

Our response

9.86 The removal of the capacity charge and coal spillage charges act to mitigate the adverse impacts of an increase in the VUC. We have used this to reach our proposals on capping/phasing-in.

9.87 For freight, the increase in the VUC rates in year 1 of the control period as a result of the removal of the capacity and coal spillage charges is collected through an ‘across the board' increase in the VUC rates that are rising in CP6. However, where increasing a VUC rate for the removal of the capacity charge and coal spillage charge would result in the VUC rate exceeding its uncapped level, we have limited the increase to the correct VUC rate (so that charges do not exceed the cost 'directly incurred' as set out in relevant EU legislation). A 'statement of methodology'[49] detailing how Network Rail applied our capping/phasing-in policy when calculating the rates for the draft price list is available here.

9.88 It is recognised that relatively few freight operators will benefit from the reduction in the coal spillage charge but matching the respective VUC increases to these operators has not been possible. Data limitations and the size of coal spillage charge revenues mean it would not be proportionate to take this approach.

Impact assessment wording on net benefits from increased freight traffic

9.89 Freightliner said that our draft impact assessment indicated that an increase in rail freight traffic would lead to an increase in external costs, whereas evidence suggests that there is in fact a net benefit.

Our response

9.90 We agree that a movement of freight traffic from road to rail results in a net external benefit and this overall net impact is recognised in the impact assessment. However, we acknowledge that the discussion of the underlying costs and benefits in the referenced section of the document is poorly worded and we have sought to clarify this issue in the final impact assessment.

The ability of operators to respond to near-term pricing signals

9.91 A number of stakeholders including Freightliner, RDG and RFG considered that our impact assessment places too much weight on the ability of operators to respond to near-term pricing signals and therefore overstates the importance of incentives for the selection of track-friendly rolling stock.

9.92 It was also noted that because there was expected to be an increase in almost all VUC rates, it would not be possible for operators to "avoid" an increase in charges by switching rolling stock.

Our response

9.93 The incentive to procure and use track friendly vehicles is one of the benefits we see of a transition towards eventual full cost reflectivity. Cost reflectivity can help to drive

[49] N.B. This document refers to figures included in the draft price list.

efficient decisions in relation to balancing costs and benefits (and expectations around future costs and benefits) whilst helping to drive innovation.

9.94 We recognise that wagons have a substantial asset life and that the process of securing new vehicles is subject to significant investment lead-times. Indeed, we emphasised in our draft determination that the benefits of a cost reflective charging regime are expected to be realised over the long term, due to these factors.

9.95 In addition, even though the PR18 recalibrated VUC rates are largely increasing across the board, the extent of the increase reflects the track-friendliness of the vehicle and the changing differential between these charges (actual and/or expected) will provide incentives for industry participants and promote innovation in the long run.

Allocation of costs incurred by Network Rail's vehicles

9.96 GBRf stated that Network Rail's engineering wagons were some of the most damaging vehicles on the network. It suggested that, like train operators, Network Rail should pay for the wear-and-tear costs caused by its vehicles and the cost should not be included as part of the VUC charge for train operators.

Our response

9.97 We note that GBRf raised this issue previously when responding to Network Rail's July 2017 consultation on variable and station charges.

9.98 As part of the PR18 recalibration of the VUC, ORR and Network Rail jointly asked Arup to consider this issue as part of its assurance on the VUC calculation work (report available here). Arup's view was that the calculation process and decision to include the cost of engineering trains in the cost of track maintenance and renewals is reasonable given the fact that engineering work cannot be undertaken without the use and support of engineering trains. Furthermore, analysis undertaken by Network Rail indicates that its engineering trains are not excessively damaging to the track when compared to other freight traffic.

9.99 In light of the likely limited impact of changing the approach for recovering wear-and-tear costs caused by Network Rail's engineering wagons, we chose not to prioritise this issue as part of PR18. However, we support the principle of incentivising Network Rail to more closely consider the track-friendliness of their vehicles and it could be a potential improvement that could be considered as part of PR23.

Freight efficiency deal

9.100 RFG said that there had been no apparent consideration of whether a "freight efficiency deal", as was considered in PR13, could be used to reduce the increase in charges in return for joint measures to help reduce industry freight costs.

Our response

9.101 We have followed an extensive process of consultation when reaching our proposals for freight charging. While parties have at times referred to a 'freight efficiency deal', we are unclear on how this could work in a way that secured suitably binding commitments on all parties.

Ring-fencing of Network Rail's additional freight income

9.102 Freightliner noted that Network Rail's February 2018 SBP assumed that freight operators would be charged a flat real VUC rate in CP6. Our capping/phasing-in policy includes some real VUC increases in years 3-5 of CP6 which is expected to result in Network Rail receiving more income than assumed in the SBP. As such, Freightliner and FTA suggested that these additional funds be ring-fenced to enable the industry to have a more informed debate about the best value for such funding.

Our response

9.103 Our regulatory approach includes some restrictions on how Network Rail allocates its funds between business units and activities but the settlement does not contain detailed ring-fencing of individual sources of funding. We also note that the VUC remains below the level of costs directly incurred through CP6.

Direct costs allocation

9.104 Freightliner requested that we complete a detailed assessment of the VUC cost estimates' compliance with the 2012 EU Directive (2012/34/EU) and the Implementing Regulation (EU 2015/909) with respect to excludable costs.

Our response

9.105 Network Rail provided details on how its VUC estimates comply with the relevant legislation as part of its document 'Network Rail's conclusions on variable charges and station charges in Control Period 6', accessible here.

9.106 ORR has not undertaken a detailed review of Network Rail's assessment of excludable costs, nor have we reviewed costs that were previously excluded to assess whether there could be a case for reflecting them in the VUC. This is proportionate as the capping policy outlined in this paper significantly reduces the impact of the decisions on the appropriate scope of costs on the VUC charge paid by freight and charter operators in CP6. However, as charges move closer to costs – as they are expected to in CP7 – it will become increasingly important to have greater clarity on which costs should be reflected in the VUC. This will need to be reviewed during CP6 to facilitate decision-making ahead of PR23.

Capacity charge

The incentive impact of removing the capacity charge

9.107 Network Rail expressed concerns that because the ICC is poorly correlated with the increased Schedule 8 expenditure that is typically associated with adding traffic to the network, Network Rail will lack the right incentives to add traffic to the network.

Our response

9.108 Network Rail maintains that it needs to recover the increase in Schedule 8 payments historically associated with new traffic in order to be adequately incentivised to add traffic to the network. For reasons set out in previous publications, we do not agree.

9.109 In particular, we note that the connection between traffic growth and performance is, to some extent, within Network Rail's control. And, as we stated in our June 2017 conclusions to our December 2016 consultation on charges and incentives (available here):

> "…the available evidence suggests that the incentive effects of the current capacity charge are relatively weak. In particular, it is calculated in a way that does not provide a strong link between the level of the charge and either congestion or the impact on end-users (passengers or freight customers)."

9.110 Noting this, we consider that it is more desirable (from an incentive perspective) for Network Rail to be recovering the costs associated with the provision of infrastructure that will deliver good performance (as the ICC seeks to do), than for it to be recovering the costs associated with poor performance (as the capacity charge did).

9.111 More generally, in addition to our work on charges, we will be looking to improve the incentives on Network Rail to add traffic to the network by investigating what reputational incentives could be used to this end.

Schedule 4

9.112 We had previously concluded on key policy issues for Schedule 4 and consequently did not include specific proposals in the draft determination. However, a number of recalibration issues were still to be resolved at that time.

9.113 Respondents' comments covered a variety of issues, specifically:

- the effect of the May 2018 timetable re-write on Schedule 4;
- the recalibration of Schedule 4; and
- freight operator specific issues.

The effect of the timetable re-write on Schedule 4

9.114 Network Rail identified in its response that the recent re-write of the timetable is expected to have knock-on consequences for Schedule 4 payments in CP6. Specifically, it suggested that costs were likely to be around £40m higher in 2019-20 that it had originally forecast in its SBP.

Our response

9.115 We have discussed this issue in more detail with Network Rail to understand better the increased forecast. Network Rail told us the additional funding is required because it will now not be able to meet its commitment to notify passenger operators about possessions at least 12 weeks before the possession date until at least June/July 2019. This is a result of the on-going impact of the May 2018 timetable re-write.

9.116 Network Rail receives a discount on the amount of Schedule 4 compensation it pays passenger operators if it meets the 12 week deadline, and so by continuing to miss this deadline into CP6 it will pay more Schedule 4 than it forecast in its SBP. This will increase the ACS by £26m, as it funds maintenance and renewal related possessions Schedule 4 payments[50].

9.117 Accordingly we have approved an increase in the ACS for CP6 of £14m.

Schedule 4 recalibration of the access charges supplement (ACS)

9.118 A number of respondents commented on the methodology behind the calculation of the ACS which franchised passenger operators will pay in CP6. The methodology was developed by Network Rail in consultation with the industry.

9.119 Two concerns were raised by Northern. It said that:

- Schedule 4 costs related to Emergency Timetable possessions should not be paid for through ACS; and
- the ACS should be set on the basis that all possessions are notified by the early threshold (rather than on the basis of when past possessions have been notified) in order to better incentivise Network Rail.

9.120 Southeastern suggested that Schedule 4 compensation should be expanded to reflect the compensation passenger operators pay to passengers.

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[50] The additional funding requirement of £14m is to fund enhancement related Schedule 4 payments, which are funded separately out of each enhancement's capital budget.

Our response

9.121 We have set out the rationale for each of the decisions stakeholders commented on in our letter to industry on disputed issues[51]. In response to Southeastern's suggestion, passenger compensation is funded through franchises therefore this is a matter for franchising authorities.

Schedule 8

The approach to recalibrating the freight and charter operator benchmarks

9.122 Network Rail reiterated its view that our decision to support the freight operator proposal on the application of the adjustment for expected traffic growth will mean the benchmark is not an accurate reflection of freight operators' expected performance in CP6. The draft determination response by Network Rail's FNPO claimed that "there is clear evidence that ORR has set the freight benchmark at a level that will lead to c. £5m of Schedule 8 payments annually from NR to freight operators".

Our response

9.123 We made our decision on the approach to setting the freight and charter operator benchmarks after reviewing the arguments submitted by operators and Network Rail. We set out the rationale for this decision here.

9.124 Network Rail's view on this decision is thus familiar to us, and we have given it due consideration.

9.125 We do not agree that Network Rail has provided clear evidence (but rather restated its position) that the freight benchmarks will lead to payments to freight operators on expectation, and we do not agree with the sum that Network Rail considers will be the net impact on the company.

9.126 In contrast, the freight operators' submission provided clear, well-reasoned arguments as to why its proposal was a better reflection of expected performance.

9.127 We took a decision on the evidence available, in light of our statutory duties. The logic of our position is that the evidence available does not support Network Rail's view.

[51] *Final decision: Approval of Passenger Schedule 4 Access Charge Supplement*, available here.

Other aspects of PR18 Schedule 8 recalibration

9.128 Stakeholders also commented on the following decisions we have taken in relation to the PR18 recalibration of Schedule 8:

- the level of the Sustained Poor Performance (SPP) threshold;
- freight operators' exposure to delay minutes above their incident caps; and
- the level of the risk premium in the incident cap access charge supplement.

Our response

9.129 We have set out the rationale for each of the decisions stakeholders commented on in the following letters to industry:

- Level the Sustained Poor Performance (SPP) threshold
- Freight operators exposure to delay minutes above their incident caps
- The level of the risk premium in the incident cap access charge supplement

9.130 The points made in these letters address all the concerns raised by stakeholders.

10. Freight & National Passenger Operator route

Overview

This chapter provides a summary of the key points raised by stakeholders in response to the proposed decisions set out in our draft determination in respect of the Freight & National Passenger Operator's (FNPO's) route strategic plan. These were set out in our draft settlement document for the FNPO and in chapters five and seven of our draft determination overview document.

Consultation responses relating to our proposals on access charges (which affect freight and national passenger operators) are covered in Chapter 9 of this document.

Accountability and governance of the FNPO

10.1 There was broad support for our proposals for holding the FNPO route to account, with many stakeholders (including DfT and the RFG) raising concerns about the ability of the FNPO to adequately protect national operators' interests and requirements when dealing with the geographic routes and other Network Rail business functions. Other stakeholders said that the governance arrangements between these functions needed to be clearly defined.

10.2 In supporting our proposals for strengthening Network Rail's accountability and governance of the FNPO, DB Cargo and Freightliner both raised concerns that the FNPO needed greater empowerment so that it can protect the needs of the freight industry and influence how other parts of Network Rail's business (including the geographic routes and System Operator function) can deliver for the freight industry. Clarity was also sought on the roles and relationship between the FNPO and geographic route supervisory boards and how they these provide assurance and transparency to customers on their delivery.

10.3 Arriva argued that a clear governance structure was required to clarify how the FNPO's engagement with the geographical routes would deliver benefits for national operators and their customers and this should include mechanisms to effectively hold them to account. It further considered there should be a greater incentive on Network Rail to develop and promote the sharing of best practice between the geographical routes, alongside comparison using route scorecards, to address concerns that there was insufficient focus on the needs of operators for whom a route was not a lead[52]. This was a particular concern for CrossCountry Trains where it argued the FNPO route had not been able to secure appropriate focus from each of the geographical routes over which it operates. Arriva said it would welcome a

[52] The concept of 'lead routes' is discussed in paragraph 2.4 (page 11) of Chapter 2.

mechanism that enabled the FNPO to hold the geographic routes to account more effectively.

10.4 ASLEF queried whether freight services would be given a fair hearing in access and timetable decisions, when there are many competing stakeholders involved. It was concerned that more profitable passenger services were likely to be prioritised over freight.

10.5 Transport for Greater Manchester said that FNPO should have sufficient authority so it is not treated as secondary to the other geographic routes and that we needed to undertake close scrutiny of the FNPO until it becomes more established to ensure it is being treated equally.

10.6 In Network Rail's response, the FNPO underlined its commitment to address the specific actions that we had identified in our draft settlement document, in order to improve its governance arrangements and provide greater transparency to its stakeholders. It explained that it was undertaking a number of specific actions which included:

- detailing the governance and framework arrangements which it would share with ORR and stakeholders in September 2018;
- establishing a Route supervisory board (RSB)[53] with terms of reference that are consistent with other RSBs. It would engage with its customers to agree how meetings should be arranged to meet the specific needs of their end-users;
- collating the activities undertaken by the FNPO as part of its annual reporting to stakeholders for each key customer group it manages;
- continuing its stakeholder surveys and pulse checks, providing improvements to these and acting on the information received from stakeholders;
- developing end user scorecards, drafts of which had already been shared with a number of stakeholders and for which feedback would be incorporated in finalised versions; and
- clarifying all the milestones in the FNPO route strategic plan with all 'TBC' references removed and an updated iteration of the route plan to be made available and shared with stakeholders.

Our response

10.7 We welcome Network Rail's commitments to improve its governance arrangements for the FNPO to provide accountability and transparency to all of its stakeholders, in

[53] Since consulting on PR18 draft determination, Network Rail has now redefined these as railway boards.

order to address their concerns about the ability of the route to provide sufficient weight and focus to their individual requirements. This is particularly important, so that the geographic routes provide sufficient attention to the FNPO's multi-route operators and that the FNPO provides sufficient focus on their requirements.

10.8 It is disappointing that Network Rail did not meet its commitment to provide detail on its governance and framework arrangements and share these with stakeholders by the end of September 2018. We understand that the company now proposes to meet this commitment to clarify some aspects of its governance arrangements later in the autumn. We will therefore expect Network Rail to keep stakeholders informed in the development of its proposals, providing stakeholders with the opportunity to comment on aspects of Network Rail's governance and to hold the FNPO to account as part of its regular engagement, stakeholder surveys and publication of annual reports on its delivery.

10.9 Our proposals for changes to Network Rail's network licence would also strengthen the obligations on the company to address the particular issues faced by the FNPO's customers.

Scorecards and performance measures for CP6

10.10 Stakeholders responded to our assessment of Network Rail's proposed performance delivery for freight and national passenger operators, including the requirements for network availability and network capability. These responses and our decisions relating to performance for CP6 are discussed in chapter 4.

FNPO safety improvement programme

10.11 A number of stakeholders welcomed the inclusion of the £22m FNPO safety improvement fund within the FNPO's strategic plan in February 2018. There was also support for our proposed decision that this should be in the 'core' (rather than 'optional') spend. GBRf said it was important that the funding was spent on the right areas, where there sustainable safety benefits could be clearly demonstrated. DB Cargo said it would work closely with the FNPO to identify and mitigate safety risks.

10.12 In supporting our proposal, ASLEF said that the success of Network Rail's SBPs for CP6 together with the continued safe asset management in subsequent control periods was dependent on continued monitoring and efficient budgeting.

10.13 Network Rail welcomed our proposed decision and provided details of its process that set out its proposed process in relation to the scheme.

Our response

10.14 We note and welcome the comments made. The settlement that we have set the FNPO in the final determination includes the £22m in its ‘core’ funding allocation.

11. Scotland

Overview

This chapter provides a summary of the points raised by stakeholders in response to our draft settlement for Scotland, which formed part of the draft determination. This set out the revenue requirement for Scotland along with our proposed requirements for Scotland over CP6.

The draft determination was our assessment of Network Rail's strategic plans which sought to reflect the requirements that the Scottish Ministers set in their HLOS. These included passenger and freight train performance, rail freight market growth and reduction of carbon emissions.

Introduction

11.1 Stakeholders responded with comments on our proposed decisions on what Network Rail must deliver in Scotland. Broadly, stakeholders agreed with our proposals for Scotland. Transport Scotland welcomed the approach that we took to setting out what Network Rail would need to deliver during CP6 to meet the HLOS requirements. The main points raised by stakeholders are discussed in turn below.

Delivery of the Scottish Ministers HLOS

Journey time improvements

11.2 DB Cargo broadly supported our draft determination for the Scotland route. It considered that the Scotland route understood its role in delivering for rail freight and the need for alignment of targets with the FNPO and System Operator to ensure Network Rail is able to deliver the promised outcomes expected from its funder and customers. However, DB Cargo said it would have liked the Scotland route scorecard to have included a freight journey time improvement or a freight efficiency measure as well.

11.3 Railfuture Scotland asked why ORR had accepted the Scottish Ministers priority of reducing journey times when passenger feedback, as surveyed by Transport Focus, suggest journey time improvements were less of a priority for Scottish passengers.

Our response

11.4 The Scotland route long-term scorecard includes a measure for freight journey time improvement, as this is captured by the *'Average speed of Freight Services'* metric and we will monitor progress on Network Rail's delivery throughout CP6.

11.5 The Scotland route scorecard does not include a specific freight efficiency measure. However, it is open to any customer to discuss adding additional measures to their customer scorecard with the route (albeit that in this context, this specific measure may be better reflected on the FNPO scorecard), while being mindful of the trade-off between having more measures and the lower weight placed on any individual measure.

11.6 We note Railfuture Scotland's point regarding the focus on journey times and are aware that this has been challenged in various PR18 stakeholder forums. We note that Transport Scotland has said that, as well as enhancing passenger journeys, the requirement for journey time improvements would benefit Scottish passengers and also encourage modal shift from car to train[54]. This requirement was in the HLOS and we are reflecting it in the final determination.

Freight growth target

11.7 The Friends of the Far North Line group supported the requirement for freight growth of 7.5% by the end of CP6, but considered that there was ambiguity around the question of how much of the freight growth target (of 7.5%) is new business.

Our response

11.8 In its HLOS, the Scottish Ministers required Network Rail to take all reasonable steps to facilitate growth of 7.5% in rail freight traffic on the Scotland route.

11.9 We have discussed with Transport Scotland how this requirement should be reflected in the determination. It has said that net freight tonnage, at 31 March 2024, should be at least 107.5% of the end position as at 31 March 2019. Further, at the end of CP6, at least 7.5% of the final net freight tonnage must be product that is new to rail during CP6[55].

The sale of property and land

11.10 Railfuture Scotland asked whether consequential losses from sales of railway property were monitored (though it noted that this issue was less applicable to Scotland).

Our response

11.11 We do not routinely monitor consequential losses after the sale of property, but do include property sales income and the reductions in property rental income in our forecasts. We also assess the impact of property sales on the railway before allowing

[54] This point was made at the Scotland route stakeholder workshop in September 2017.

[55] See our letter 'Clarification points on The Scottish Ministers' High Level Output Specification for Control Period 6' here.

the sale. Condition 7 of Network Rail's network licence safeguards against the inappropriate disposal of land assets[56].

11.12 Further, in the Scottish HLOS for CP6, the Scottish Ministers require Network Rail to optimise the availability of redundant or underused assets, including land, for the benefit of the local community. Where Network Rail looks to dispose of assets, it should first undertake a thorough assessment of the potential for railway use in the future.

Transport Scotland’s approval of renewals

11.13 In the draft determination we highlighted that we were still discussing the Scottish HLOS requirement for Transport Scotland to take decisions on which major renewals projects should be taken forward. We also noted that this would be a significant departure from how Network Rail currently operates, and also raise issues of accountability.

11.14 In its response to the draft determination, Network Rail reiterated its own concerns about this. It continues to be of the view that it alone should retain ultimate accountability for decisions on renewals, but that it should work together with Transport Scotland to develop improved means of consultation on major renewals decisions.

11.15 Transport Scotland, in its response to the draft determination, provided some further background to why it considers its approval of renewals is required in CP6. Transport Scotland confirmed that this is limited to renewals where there was ‘an opportunity for choice of outputs’. Its response explained that it did not want to approve renewals that were either routine or safety critical.

Our response

11.16 Transport Scotland, Network Rail and ORR agree that there are only three renewals in scope (Carstairs, Perth re-signalling and the Integrated Electronic Control Centre (Edinburgh) (IECC)).

11.17 In its response, Transport Scotland acknowledged that agreement was unlikely to be reached on this in time for the final determination. It accepts that we will determine a specific approach to Carstairs (as this project is such an early stage of development, this is discussed further below).

11.18 The Perth resignalling project is linked to the Seven Cities Enhancement Project and as such is already part of the enhancement pipeline. It is our understanding that Transport Scotland’s approval is in effect already required for this project as it is will

[56] Recent examples of land disposal cases are available here.

be included in the enhancements pipeline. This therefore means that any potential additional approval would be limited to the Edinburgh control system renewal.

11.19 There has been no agreement on Transport Scotland's role in the IECC renewal. Our final determination does not set any requirements in relation to this renewal. We expect Network Rail to continue to engage with Transport Scotland on progress with the IECC as part of the wider 'Growing the Lothian Borders' project.

Assurance that Network Rail will deliver plans for November 2018

11.20 A number of respondents noted that there were areas in the draft determination where Network Rail still has to develop a plan to deliver outputs in CP6. Respondents were specifically concerned with delivery of Network Rail's gauging strategy and journey time improvements.

11.21 DB Cargo noted the importance of ensuring that there was input from freight customers on the Scottish gauge requirement. Following publication of its SBP, Network Rail committed to consulting on its draft proposals for the Scottish gauge requirement, which will allow interested parties to provide their views.

11.22 DB Cargo also sought assurance that the journey time plan would involve the SO, FNPO and freight industry.

Our response

11.23 We have been monitoring Network Rail's progress on the development of these plans.

11.24 Following publication of the SBP, Network Rail has established a 'CP6 Journey Time Metrics - Industry Working Group' which meets on a monthly basis. This is led by the SO and attended by the Scotland route, the FNPO, ScotRail, ORR, Transport Scotland and passenger and freight operator representatives (Freightliner attends for freight). Network Rail also provides an update on progress to industry parties at its Route Investment Review Group, which meets on a quarterly basis.

11.25 We closely monitor implementation of these plans and during CP6 we will continue to monitor delivery through the HLOS tracker. If we require further assurance on Network Rail's plans we may instruct an independent reporter to review them.

Carstairs renewal

11.26 In its SBP, the Scotland route had allocated a high level forecast of £53m towards the Carstairs renewal. This renewal has previously been deferred on a number of occasions while options were considered, particularly around whether the renewal could be linked with an enhancement project (HS2 in particular).

11.27 Following publication of its SBP, the Scotland route has confirmed its intention to proceed with Carstairs as a standalone renewal. It has explained that the deterioration of the existing infrastructure (and holding works initiated in 2015) and issues with technical non-compliance pose a significant risk to future performance (there are currently emergency and temporary speed restrictions being imposed).

11.28 The Scotland route has undertaken further project development for Carstairs as a standalone renewal, and it is proposing that the project could now cost £100 - £150m. To ensure there are funds available within the OMR envelope, the Scotland route has asked for £50m of the efficiency savings identified in our draft determination to be retained within the route.

Our response

11.29 We have scrutinised the route's revised plans for Carstairs and attended a site visit in August 2018 to better understand the work that is planned.

11.30 We accept the route's proposals and have allocated an additional £50m of renewals expenditure to address the funding gap, this will be funded from the efficiency savings identified in our draft determination. This means that in CP6, £103m of funds are now available for Carstairs.

11.31 While we accept Network Rail's proposals, given this project is still at very early stages of development (Governance for Railway Investment Projects or GRIP stage GRIP 1[57]) and there is no firm estimate of costs, as outlined above we will take a different approach to Carstairs. This will involve an efficient cost review at around GRIP 3[58].

11.32 In CP5 efficient cost reviews were typically carried out on enhancements projects in Scotland. While Carstairs is not an enhancement, we consider that it is appropriate to require an efficient cost review for Carstairs given the project is currently at such an early stage of development. This will ensure that Network Rail's costs are justified and that a robust option process has been followed.

11.33 Given the points made above in relation to Transport Scotland's role in approving certain renewals in CP6, it is vital that Transport Scotland is involved in the efficient cost review. While we have yet to agree specifically how this will work, as a minimum, we expect to involve Transport Scotland in the Scotland route's plan for Carstairs and ahead of and during the cost review to ensure the optimal solution is being delivered for Carstairs.

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[57] GRIP 1 is output definition stage.

[58] GRIP 3 is where there is an assessment of potential options and selecting the most appropriate one to deliver stakeholders' requirements.

11.34 While retaining an additional £50m within the OMR envelope, if following the efficient cost review it is established that costs for Carstairs are less than £103m, there will be a trilateral review (Network Rail, ORR and Transport Scotland) of where best to spend the excess. If costs are higher they will be funded out of the Scotland risk funding.

Central costs

11.35 Following publication of the draft determination, we met with Network Rail and Transport Scotland to discuss the total amount of central costs being allocated to the Scotland route and efficiency of those costs. In its response, Transport Scotland noted that from that discussion, there were a number of actions that remained to be completed before the final determination was published. It also noted a number of concerns with central costs, including:

- the level of increase compared to CP5 and asked ORR to revisit certain areas, particularly the increase in headcount (by 7,000) in central functions since 2011, the SO costs and the procurement of electricity for traction;
- the need for Network Rail to provide it with further analysis to help explain why there is expected to be an increase in central costs in CP6; and
- its consideration that there is more work needed to examine how well the routes are challenging central costs.

Our response

11.36 We have provided additional information to Transport Scotland following our meeting with them.

11.37 With regards to Transport Scotland's concerns around SO costs and electricity for traction, we have provided it with additional information to help address its concerns.

11.38 For the points raised around the increase in headcount in central functions, the data submitted to us by Network Rail shows that its total headcount has increased by 4,515 heads since 2010-11 (see Table 11.1 below). This comprises an increase in route managed headcount of 4,724 and a reduction in centrally managed headcount of 209. This does not align with Transport Scotland's assertion that there has been a headcount increase of 7,000 in central functions.

Table 11.1 – Central functions headcount change from 2011

	Route managed	Centrally managed	Total
March 2011	22,668	11,913	34,581
Now	27,392	11,704	39,096
Increase/ (decrease)	4,724	(209)	4,515
Movement due to:			
Increased project delivery	2,492	613	3,105
New activities	716	695	1,411
Transfer of responsibility	1,516	(1,516)	0

Source: Network Rail

11.39 We have also asked Network Rail to follow up on its commitment to provide Transport Scotland with additional analysis.

11.40 On the routes' challenge of the central costs, we will monitor the ability of routes/the SO to hold central functions to account throughout CP6.

11.41 Where we have concerns about a central function's activities – and/or we are not confident that the governance arrangements provide sufficient assurances that routes/the SO can influence and exert pressure on the central functions – we will adapt our approach accordingly. This approach will be backed by a new licence condition that places additional requirements on the centre to set out transparently the reasons for preventing routes from taking their own procurement decisions.

Safety

11.42 Railfuture Scotland asked about the retrospective enforcement of EU Electricity Clearance Regulations on Scotland route electrification projects and said that it considered that the decision to do this was unnecessary. Railfuture Scotland asked if the ORR was involved in this particular decision.

11.43 Railfuture Scotland also asked whether there had ever been an appraisal of the prohibition of 'red zone' working in Scotland and whether it is the result of an effective risk assessment compared to other routes.

Our response

11.44 The Railways (Interoperability) Regulations 2011 transposed the requirements of the EU Interoperability directive 2008/57/EC into UK law. As the authorising body we are responsible for assessing whether Network Rail has delivered against these standards and whether the infrastructure can be entered in service. It is not in our gift to grant Network Rail a derogation from these requirements; that decision has to be made by DfT and the European Commission.

11.45 With regards to Railfuture Scotland's point around 'red zone' working, Network Rail took the decision to restrict 'red zone' working in Scotland in response to an enforcement notice issued in 2009, and there remain circumstances where red zone working is permitted. The revised arrangements were appraised by ORR at the time and deemed as meeting the legal requirements referred to in the notice. The law requires risk control by elimination – achieved in this case by minimising instances of staff working in close proximity to moving trains – in preference to procedural controls, where reasonably practicable.

12. System Operator settlement

Overview

This chapter provides a summary of points raised in response to our draft settlement for the System Operator, which was part of the draft determination. This set out our proposals regarding what the System Operator (SO) should be required to deliver for its customers in CP6, and the funding it requires[59].

Some responses also discussed our proposals for reflecting the SO's role in the context of Network Rail's network licence for CP6, which will be updated; these are dealt with in the separate responses document for the draft licence consultation.

The role of the SO and its regulatory framework

A separate regulatory settlement

12.1 A range of stakeholders expressed support for the SO having its own settlement, including the Welsh Government, the West Midlands Rail Executive, Nexus, the Rail Freight Group and Arriva. Abellio noted that ORR will have to be clear about how it will regulate the SO alongside the routes.

12.2 Jonathan Tyler suggested that the SO functions should be separated from Network Rail, and augmented with additional decision-making powers.

Our response

12.3 We note the general support for the SO settlement as proposed in our draft determination, and as such have made only minor revisions in our final determination in response to specific points. The SO remains a distinct part of Network Rail, with governance arrangements that support its unique role. Our proposals for changes to Network Rail's network licence will also mean that our regulation of the SO will reflect its particular functions within Network Rail.

12.4 More generally, the SO's business plan and the regulatory settlement are intended to support an impartial and expert SO, for example through the SO's proposals for a new external governance framework.

[59] The SO is a business unit within Network Rail that is responsible for strategic planning, managing changes to what the network delivers, managing Network Rail's Sale of Access Rights (SoAR) framework, and producing the timetable. For CP6, the SO will have its own settlement and its own budget to fund these activities. Following our assessment of the SO's plan, we supported its proposed expenditure plans and proposed some additional requirements we would place upon it.

The SO's accountabilities, and its relationship with Network Rail routes

12.5 Whilst supportive of the establishment of a dedicated SO, stakeholders expressed some differing views on the relative responsibilities of the SO and the routes, with many stressing the need for the SO to cooperate effectively with routes to support their objectives.

12.6 Freight operators and the DfT were clear that the SO must engage with the FNPO route, and take the needs of freight and national passenger operators into proper consideration. Freightliner and DB Cargo also stressed that it was important for the SO to make decisions impartially and consistently across routes. DB Cargo suggested that the SO could also report on routes' compliance with the various frameworks it owns (for example the network change framework which sets out how Network Rail must consult with stakeholders in order to make changes to the network's capabilities).

12.7 Several respondents said they would welcome further clarity on the roles/responsibilities of the SO and the routes. Arriva and Northern considered that we should make sure that there is proper engagement between the routes and the SO, in particular with regards to enhancements and third party funders. LNER said that there should be greater devolution of timetabling to the routes.

12.8 Clarity on roles and responsibilities was also stressed with regards to safety standards. TSSA was concerned about a lack of clarity between accountability for system safety between the Safety, Technical and Engineering function of Network Rail (also known as the 'Technical Authority') and the SO. IOSH stressed that the SO and the routes need to show a clearer recognition of their role in leading measurable improvement in system safety.

Our response

12.9 We agree that the SO should take the needs of the FNPO's stakeholders into consideration, and that the SO supports freight objectives. The SO needs to play an important role in complementing route devolution, ensuring that the benefits of devolution can be achieved whilst still maintaining those associated with a coordinated national network, which brings significant benefits for customers.

12.10 We agree that the SO has a role in promoting whole system safety through its activities, and in promoting safety by design in those enhancement projects where the SO acts as the project client. We considered how best to measure this role during the periodic review in discussions with the SO, but no straightforward means to measure system safety could be determined. We remain open to developing such a metric. The SO has committed to reporting on its contribution to system safety during

CP6 through its annual narrative report, which will be in the form of a qualitative description until such time as a quantitative measure has been developed.

The SO's delivery of its functions, and our requirements on the SO

Strategic planning

12.11 Southeastern noted that separating enhancements from the periodic review may make it harder to secure funding for incremental improvements to the network as part of renewals. Southeastern also stated that TOCs should be able to work closely with the SO in the long-term planning process. Arriva and Northern noted that the SO would need to work closely with routes to secure third party funding.

Our response

12.12 Enhancements in CP6 will be treated differently to operations, maintenance and renewals expenditure in the periodic review. Both DfT and Transport Scotland are adopting a pipeline approach to commissioning enhancements, following lessons learned from CP5. This means funders have more control over the release of investment funds, but we expect routes to make pragmatic decisions over incremental enhancements within their business planning processes.

12.13 We agree that there are opportunities for continuous improvement in strategic planning, and are satisfied that the SO's plan for CP6 goes some way to addressing these, for instance through strengthening the tracking of benefits of projects 'end-to-end' and through strengthening the capabilities of its strategic planning teams. We note that the SO is trialling a new approach to long term planning (which it calls 'continuous modular strategic planning') which, it considers, will be more timely and responsive to stakeholder needs.

Sale of access rights

12.14 A number of stakeholders stated that the Sale of Access Rights (SoAR) process needs improvement. Arriva argued that the process was driven by technicalities rather than a strategic vision, and Open Access Rail argued that prospective open access operators were being disadvantaged by having to bid into existing timetables. Both said that the SO should identify the overall capacity available instead.

12.15 Northern and Open Access Rail would like to see the SO having full independence (implicitly from the routes) to manage the SoAR process.

12.16 DfT considered that the SO must retain accountability for ensuring the effective operation of the railway at a system level, but also called for more involvement from the routes. TfL, however, had concerns that greater devolution of decisions around access rights could increase the risk of disagreement between the routes and the SO.

Our response

12.17 We note that Network Rail, working with industry, has recently been undertaking a review of the SoAR process. We are supportive of this review, and expect the SO to report on progress in its annual narrative reports.

Journey time improvements

12.18 DB Cargo, Nexus and Transport Scotland welcomed the SO's lead role on journey time improvements in Scotland. However, some also pointed out that this should be a broader project that encompasses more than the Scotland route. In particular, Southeastern wanted to see journey time improvements in the South East route.

12.19 Transport Scotland stressed the need for ORR to continue to monitor the process of reducing journey times in Scotland rigorously, and that Transport Scotland should be involved in the development of these strategies before they are submitted to ORR on 30 of November 2018.

Our response

12.20 Journey time improvements for passenger and freight services were a specific requirement set out in the Scottish Ministers' HLOS, which is why Scotland is the focus of our requirement. We consider that the SO is best-placed to take the whole-system view necessary to achieve improvements in journey times. In our final determination, we have therefore set out requirements that the SO is accountable for producing an industry-wide plan to improve journey times, for leading and overseeing Network Rail's delivery of the actions set out in that plan, and for overseeing the wider delivery of the plan.

The SO's budget

12.21 There were a range of views on the proposed increases in the SO's costs set out in the strategic plan and our proposed decision to accept those:

- Transport Scotland was concerned at the scale of the increase in SO costs relative to CP5, in particular the costs of timetable planning, and would welcome revision in some areas;
- many stakeholders, including Abellio, FirstGroup, DfT, Northern and the West Yorkshire Combined Authority, supported the need for the SO to be well resourced, and believed that the proposed increase in SO expenditure to £272m was appropriate. Stakeholders were particularly supportive of additional expenditure in timetabling; and

- however, some stakeholders said that the current plans did not go far enough, particularly in light of the recent issues around the introduction of the May 2018 working timetable. Several stakeholders argued that the SO needs further resources (beyond the proposed £272m) to guarantee that it can properly perform its different functions. In particular, Arriva, DB Cargo, LNER, and RDG and Southeastern all questioned whether additional resources beyond the £272m were required – in particular, whether there should be additional investment in timetabling IT systems.

12.22 The CP6 plan already set out how the SO would improve the capacity and capability of its timetable resources including recruiting more staff and investing in additional systems. Network Rail have accelerated some of these actions, such as bringing forward the recruitment of additional timetable planners, which it does not expect to materially impact on its plans for CP6. However, the recommendations from the inquiry and Andrew Haines' review of Network Rail's structure may necessitate the SO to consider whether its plans for CP6 will need to be revised to reflect these recommendations.

Our response

12.23 The proposed £272m budget for the SO represents a considerable increase from CP5 (c. £145m). As part of our assessment of the SO's plan, we noted the considerable capital investment it has proposed in timetabling systems (£55m across the control period), as well as an expansion of staff numbers in its capacity planning function (which produces the timetable) of around 100 staff members.

12.24 Furthermore, and given the significant increase in the SO's budget for CP6, we are requiring the SO to implement improvements in its processes and controls for making capital investment decisions (as identified in Nichols' review of the SO's current arrangements). We want to be confident that the SO has the necessary capabilities to deliver this increase in investment.

12.25 The PR18 determination provides an individual settlement for the SO. However, we recognise that circumstances can change and that it is important Network Rail and the SO are able to respond to events. Our Managing Change policy sets out the process that Network Rail must follow if making changes to the SO budget (for example to provide additional funding to improve timetabling).

12.26 Having reviewed the SO's plans and considered stakeholder comments, we are reaffirming our prior conclusion that the efficient direct cost for the SO is £272m (comprising £211m operational expenditure and £61m capital expenditure).

13. Other issues

Overview

This chapter sets provides a summary of points raised by stakeholders on our draft determination that do not clearly relate to specific documents or chapters.

Our approach and Network Rail's devolved structure

13.1 In Chapter 2 of our draft determination overview, we set out our approach to determining what Network Rail should deliver for its customers in CP6.

13.2 A couple of stakeholders questioned whether ORR would be able to effectively regulate Network Rail given its devolved structure. Points raised included how services that run across different routes would be monitored and clarity on how the routes and system operator (SO) would be regulated, to avoid any possible internal disputes. Abellio questioned how ORR would regulate and penalise Network Rail given its reclassification as a public sector body.

13.3 A couple of operators expressed concern that where they had been designated a lead route, if an operator transverses over multiple routes, the engagement with the non-lead routes may not be so effective. FirstGroup added concerns about the effectiveness of reputational incentives on routes and the SO.

Our response

13.4 Our PR18 final determination overview document sets out the approach we will use to regulate Network Rail in CP6, and our intention to make use of comparison between the devolved routes to improve the incentives on Network Rail. Our regulation of both the SO and FNPO will provide additional incentives on these parts of Network Rail to protect against the particular risks faced by operators when their services cross route boundaries.

13.5 The route supervisory boards (RSBs) (now defined by Network Rail as railway boards), could also play an important role in reviewing issues that affect operators across more than one route, particularly in light of Network Rail's updated proposals that provide a forum for all of the chairs of the RSBs to meet to resolve issues.

13.6 In addition, we intend to make amendments to Network Rail's network licence that will require it to put in place appropriate arrangements to manage the risks faced by operators of services that cross route boundaries. These obligations will apply to all parts of the company, and so provide an additional focus to the reasonable requirements of these operators.

13.7 This approach has been designed in the context of Network Rail's transition to a public sector body. We have also highlighted the importance to Network Rail of greater clarity in the governance arrangements that apply to certain areas of the company; notably in respect of the FNPO.

Absence of a route for the north of England within Network Rail

13.8 Northern said in its response that the absence of a specific Network Rail route for the north of England, as recommended in the Shaw review (2016), remained a fundamental concern to it. Northern considered that the engagement it had experienced with LNE&EM and LNW routes had been inconsistent in approach and it called for closer joint working between the two routes. Northern added that LNE&EM and LNW should adhere to a consistent approach to managing cross-boundary delays.

Our response

13.9 The optimal number and geographic scope of routes is complex issue, and there is no perfect solution to the question of where to draw route boundaries. The issue of whether Network Rail should create a specific route for the north of England is a matter for Network Rail. The licence changes we consulted on in June 2018 did not specify how many routes Network Rail must have, or the geographic areas. However, to maintain clear accountability, any changes to the current route areas proposed by Network Rail would need to be dealt with through the managing change process (in line with the changes to the licence that we expect to make ahead of CP6).

13.10 We have set out above in paras 13.4-13.6 how our determination aims to mitigate the risks faced by operators of services that cross route boundaries. In addition, our proposed changes to the network licence include a new duty of cooperation to ensure that the SO and every route business provide and receive such cooperation and assistance as is necessary to ensure compliance with all other licence obligations.

Requests for additional funding for particular routes

13.11 A few stakeholders made representations outlining the case for increased funding for particular routes (for example LNE&EM, South East and Western), including for enhancement schemes.

Our response

13.12 Enhancement schemes are outside the scope of PR18. DfT and Transport Scotland are using the pipeline processes that they have each set up to fund and commission enhancements, rather than the periodic review process.

13.13 Within PR18, the total funding available to Network Rail for OMR activity is fixed at the level set out in the relevant government SoFA. Therefore, an increase in funding for one part of Network Rail would necessitate a corresponding decrease elsewhere.

13.14 We have reviewed how Network Rail has allocated funds between routes and between different activities (e.g. renewals, maintenance, etc). We had some concerns about the methodology used by the company. Reflecting this, in our draft determination, we stated our view that Network Rail should spend more money on asset sustainability in England & Wales, and asked it to include additional expenditure in its route plans based by allocating this expenditure based on relative asset condition.

13.15 We remain of the view that Network Rail should improve its methodology for allocating funding between routes, and have required it to develop an updated approach, in consultation with stakeholders. This would be used to inform allocations from the Group Portfolio Fund, should risks not materialise.

Network Rail's fulfilment of its biodiversity obligations

13.16 Natural England highlighted that Network Rail, as a public body, has a duty to consider biodiversity as part of its policy and decision making. Natural England made the point that Network Rail should have set out in its SBP how its 40,000 hectare estate would promote biodiversity.

Our response

13.17 The final determination does not specify biodiversity measures. Network Rail is responsible for the detail of vegetation management and ensuring this complies with asset sustainability, environmental, ecological and health and safety requirements.

13.18 These requirements sit alongside the company's obligations. Network Rail includes commitments to biodiversity as part of its Lineside asset management policy for CP6[60], although the route SBPs do not go into detail about how biodiversity is managed by route.

13.19 ORR participated in an independent review, commissioned by DfT and chaired by John Varley (who was supported by RSSB), on vegetation management. At the time of publication of the PR18 final determination, this review is still ongoing. We are therefore not in a position to comment more specifically on this. Any recommendations that result in certain requirements on government may need to be reflected in Network Rail's subsequent plans.

[60] Network Rail's Lineside asset management policy for CP6 is an internal document, and not publicly available as of October 2018.

Financial resources to participate in the ombudsman scheme

13.20 DfT welcomed Network Rail's participation in the Rail ombudsman scheme (which is included in the Freight & National Passenger Operator (FNPO) route strategic plan) and encouraged ORR to ensure Network Rail has allocated sufficient resources to ensure Network Rail plays an effective role in the scheme.

Our response

13.21 We have accepted Network Rail's revised business plans, including its proposed funding in respect of the ombudsman scheme. We expect Network Rail to ensure that it has the appropriate level of resources to fulfil its agreed commitments to participate in the Rail ombudsman scheme.

Role of regional bodies

13.22 West Midlands Rail Executive noted the political devolution that had occurred within England during CP5. It was concerned that the industry and ORR did not always recognise the full extent of this – for example, in terms of the level of engagement undertaken with organisations such as itself.

Our response

13.23 We recognise the significant changes in rail governance that have taken place during CP5 and note WMRE's role as co-specifier of the West Midlands Trains franchise, among its other responsibilities. In our initial consultation on PR18, we noted the importance of taking account of the views of regional bodies with devolved responsibilities during the PR18 process.

13.24 Our position remains that we stand ready to help facilitate the role of the new devolved bodies where we are in a position to do so. We would be very happy to discuss with WMRE (and other devolved bodies) any specific areas of our regulation of Network Rail where this would be helpful.

Econometric benchmarking

13.25 Our PR18 econometric top-down benchmarking focused on benchmarking Network Rail's routes and maintenance delivery units (MDUs). This analysis was reviewed by an independent consultant (CEPA) who concluded that this work was "…in many ways comparable in quality and approach to work done by other economic regulators"[61]. In our draft determination, we noted that although the application of the findings of this analysis was limited by the quality and quantity of

[61] See Evidence on Top Down and Bottom-up Efficiency Adjustments for Network Rail's CP6 Maintenance and Renewal, CEPA, October 2018, available here.

the data, the results nonetheless supported our other evidence in identifying some unexplained variances in efficiency between both routes and MDUs.

13.26 We only received one response, which was from Network Rail. Network Rail's comments mainly echoed the known limitations of our analysis (e.g. the size of the dataset, the strong assumptions involved in the COLS[62] approach, the fact that a steady state adjustment was not undertaken on all assets, etc.).

Response

13.27 As we stated in our published report[63], the combined effect of the above mentioned limitations explains why our findings were used only as supporting evidence in arriving at our decisions.

13.28 However, we nonetheless consider that this analysis has established the basis of an approach to efficiency benchmarking of routes and MDUs, and we will seek to address the identified issues as this work progresses. We will require Network Rail to maintain a consistent set of data to facilitate similar work in future (something that would also be useful for its own analysis and management of the company).

13.29 We note that Network Rail also discussed the work that it has started to help it further understand productivity and efficiency at both route and MDU levels. We support this initiative. We consider that such 'bottom-up' analysis could be a good complement to robust 'top-down' econometric analysis. In CP6, we will continue to engage with Network Rail and its routes in order to develop both approaches as part of a robust efficiency benchmarking framework.

[62] COLS stands for 'corrected ordinary least squares'.

[63] PR18 Econometric top-down benchmarking of Network Rail, ORR, July 2018.

Appendix A: List of respondents

Respondents to our draft determination		
Abellio UK (Abellio)	GO-OP Co-operative Limited (GO-OP)	Railway Industry Association (RIA)
Councillor Adam Brookes	Grand Central Railway Company (Grand Central)	Railway Safety and Standards Board (RSSB)
Mr. Adam Stead (Apollo Rail Ltd)	Grand Union Trains (Grand Union)	Mr. Roy Freeland (Perpetuum)
Aggregate Industries	Institution of Occupational Safety and Health (IOSH)	Mr. Simon Babes (Movement Strategies)
Angel Trains Ltd	Mr. Jonathan Tyler (Passenger Transport Networks)	Technical Leadership Group (part of RDG)
Arriva Rail North (Northern)	Kent County Council	Transport for Greater Manchester (TfGM)
Arriva UK Trains Ltd (Arriva)	London North Eastern Railway Limited (LNER)	Transport for London (TfL)
ASLEF	London & South Eastern Railway Ltd (Southeastern)	Transport Scotland
Chartered Institute of Logistics and Transport (CILT)	Midlands Connect	TSSA
DB Cargo	MTR Crossrail	Virgin Group and Stagecoach Group (Virgin & Stagecoach)
Department for Transport (DfT)	National Audit Office (not published)	Welsh Government
Drax Power Limited (Drax)	Natural England	West Midlands Rail Executive (WRME)
East Coast Mainline Authorities	Nexus	West Yorkshire Combined Authority
FirstGroup/First Rail Holdings	Network Rail Infrastructure Limited (Network Rail	XC Trains Ltd (CrossCountry)
Freight on Rail	Open Access Rail	
Freight Transport Association (FTA)	Plymouth County Council	
Freightliner Group (Freightliner)	Rail Delivery Group (RDG)	
Friends of the Far North Line	Rail Freight Group (RFG)	
GB Railfreight (GBRf)	Railfuture Scotland	

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