



2018 periodic review final determination

**Summary of conclusions and
route settlement document for
Scotland**

October 2018

Summary of conclusions for Scotland

Context

- This document sets out a summary of ORR's conclusions for the regulation of Network Rail over the five-year period from 1 April 2019 in respect of Scotland. We have set out our conclusions in respect of England and Wales in a separate document, which is available [here](#).
- More detail on these conclusions is included in our PR18 Final Determination Overview, which is available [here](#).

Introduction

1. Today, we set out our conclusions on Network Rail's plans for the operation, maintenance and renewal of its network over the five-year control period (CP6) starting in April 2019.
2. Our conclusions build on the plans submitted by Network Rail, which have been amended in response to the challenge we set out in our draft determination. We scrutinised the amendments put forward by the company and have accepted the majority of the company's updated proposals. We have also set out our expectations on what Network Rail should deliver for passengers and freight, including how its investment should protect the condition and reliability of the rail network over CP6.
3. We welcome both governments' ongoing support for the railway, which provides a substantial increase in expenditure for operating, maintaining and renewing the network in both Scotland and England & Wales, amounting to a total of over £35bn, of which £4bn relates to Scotland (in 2017/18 prices), in the five years to 2024¹. It is essential that this money delivers improvements to passengers and freight users and is spent efficiently. Reflecting this, our final determination includes significant changes to how we monitor Network Rail and hold it to account.
4. This document sets out our conclusions for Scotland. Our decisions take the form of separate decisions for Scotland and for England & Wales, reflecting legislative requirements and how Network Rail is funded. All monetary amounts are in 2017-18 prices, unless otherwise stated².

¹ The Scotland Statement of Funds Available (SoFA) includes funding for enhancements and other industry improvements (£0.8bn), will meet costs associated with risk (£0.3bn) and takes account of Schedules 4 & 8 (£0.1bn).

² A reconciliation back to the SoFA, which was specified in nominal terms, is included in Annex E of the [financial framework](#) document.

5. Our decisions also reflect the new arrangements for enhancements decision-making and funding, whereby the majority of these projects are specified by the Scottish Government, outside of the periodic review process.

The final determination for Scotland

6. Our determination for Scotland is different from those in previous periodic reviews. This reflects, in particular, that this is the first review to take place after Network Rail was reclassified as a public sector body. It is therefore now subject to much closer control by the Scottish Government on its spending and is no longer able to raise new finance on its own account. This means that the funding available to the company is effectively fixed. Our focus has been whether this funding will be sufficient to allow Network Rail to deliver the requirements placed on it, and how best to make use of this funding to deliver improvements for passengers and freight customers over the next five years and in the longer-term.
7. To do this, we have carried out a detailed review of the company's plans, challenging whether the plans: include a reasonable degree of stretch (and so are a good basis for measuring how the company performs); provide a credible response to the recent deterioration in train performance and in the company's efficiency; and are deliverable. Throughout, we have considered whether the plans make appropriate trade-offs between the competing priorities facing the company, including between maintaining the network, renewing it to raise asset condition and spending to raise performance levels delivered to passenger and freight operators in the near-term. Additionally, we have considered stakeholder responses to our draft determination, updated our decision to reflect these, and also taken account of new information, notably the disruption in England that followed the May 2018 timetable change.
8. We have set detailed outputs for Scotland that align with the Scottish Government's high-level output specification (HLOS), and assessed whether the requirements we have placed on the company are affordable.
9. More generally, however, we have not made detailed changes to Network Rail's plans. Rather, we have been guided by the following broad principles:
 - **reinforcing the relationship between Network Rail and its customers**, the passenger and freight train operators. We want Network Rail to work with its customers on delivering what it has committed to over CP6;
 - **supporting further devolution to routes and the development of the System Operator (SO)** and more broadly Network Rail's transformation in the way it organises itself;

- **reflecting the reasons why government provided a significant increase in funding for the railway** which was – as set out in our earlier advice³ – the desire for a sustainable railway where asset condition is maintained over time; and
 - **learning lessons from CP5**, including the need for the company to ‘own’ its plans, the importance of deliverable bottom-up plans and the importance of setting a stretching but realistic efficiency challenge.
10. This process of Network Rail preparing, and ORR challenging, business plans has benefitted from three particular changes that the company has put in place.
 11. First, we now have a separate plan for the SO (whose functions centre around maintaining the benefits of having an integrated national network), following its creation as a distinct business unit within the company. This plan focuses on improving the capability of people and processes, so that Network Rail can make better use of the national network, deliver better timetabling of trains and support the Scottish Ministers’ decisions on how best to expand the capability of the network. Some of these improvements will take time to deliver for passengers and freight users. However, it is important to raise the capability of the SO, so that future timetables support reliable services and that changes are effectively managed.
 12. Second, Network Rail has aligned its devolved approach in Scotland through the creation of seven geographic routes in England and Wales, and has also created the Freight & National Passenger Operator (FNPO) route which is responsible for supporting those operators who substantially rely on several geographic routes.
 13. This has led to a much clearer set of route business plans covering the next five years than we had before CP5, as well as benefiting from closer involvement of train operators and other stakeholders. There is also a real sense that each route management team feels fully accountable for its plan.
 14. While we recognise that the Scotland route has been devolved for a number of years, Network Rail’s changes to introduce more devolution across its whole business structure has resulted in a much clearer route business plan in Scotland covering the next five years. The linkages between what the Scotland route is responsible for delivering and the role of other parts of Network Rail are clearer, reflecting the transformation across the whole of Network Rail. The SO and FNPO plans, for example set out their role in the delivery of the Scotland HLOS.

³ ORR’s advice on maintenance and renewals expenditure (to Transport Scotland), April 2017, available [here](#).

15. Third, these plans have been prepared and justified on the basis of bottom-up analysis of the work that needs to be done in Scotland. This has also supported a clearer focus on route-level initiatives, to promote improved efficiency over time.
16. Network Rail's transformation remains a work in progress, and further changes are expected to take place, to unlock the benefits of route devolution and increased focus on system operation. Our determination will allow the company to continue this process, albeit with important protections in place that ensure that we can continue to hold Network Rail to account for effective delivery.
17. On its own, our final determination cannot guarantee that the performance levels, improvements and other requirements are delivered. There are risks and uncertainty, and circumstances will change over CP6. It is for this reason that the determination includes significant funding for Network Rail to manage risk and new processes that support orderly change control throughout CP6. In addition, our monitoring and reporting on the company will continue to evolve and, alongside the PR18 decisions, forms an important part of how we encourage the company to deliver against its commitments and, more generally, to improve what it delivers for passengers, freight customers and funders.
18. We set out below a summary of our final decisions, including how we will hold the company to account through CP6 for its delivery.

Our conclusions

19. Overall, we consider that the Scotland route, SO and other supporting plans represent an important step forward.
20. While stakeholders were broadly supportive of the draft determination, there were a number of issues which required further careful consideration, including:
 - the Scotland route's revised trajectories measuring the reliability of passenger journeys (i.e. the ScotRail Public Performance Measure (PPM) and the Network Rail Consistent Route Measure for Passenger performance (CRM-P)⁴);
 - the Scotland route's request for additional funding for the Carstairs renewal project as cost estimates had changed since its original strategic business plan (SBP) submission⁵;
 - Network Rail's proposals on Research and Development spend; and
 - Transport Scotland's requirements for a specific digital rail strategy for Scotland.

⁴ CRM-P measures primary and reactionary delay minutes to passenger services caused by each Network Rail route, normalised per 100 train kilometres. It focuses on the delay that a route causes, rather than delay caused by train operators.

⁵ The Scotland route strategic business plan, February 2018, is available [here](#).

21. We discuss each of these issues in turn below and have summarised all responses to the draft determination in our summary of consultation responses document⁶.

Delivering the Scottish Ministers' HLOS

22. The Scottish Ministers published a detailed HLOS for Scotland⁷. Throughout this periodic review we have worked closely with Network Rail to understand exactly how it intends to deliver each of the HLOS requirements.
23. From the start of CP6, our final determination for Scotland requires Network Rail to deliver all of the requirements set out in Annex 1. Each is individually enforceable against its licence. We will take into account where Network Rail is partly reliant on external parties to deliver each requirement. Where this is the case, Network Rail will need to be clear on its own planned contribution. Each obligation will be subject to the reasonable practicability test in the Network Rail licence⁸.
24. In one area, our final determination takes a different approach to that set out in the HLOS. This relates to the Scottish Ministers and Transport Scotland taking decisions on certain renewals projects in CP6. As set out in the draft determination, we consider that this is a significant departure from how the Scotland route currently operates and it also raises issues of accountability.
25. In response to the draft determination, Transport Scotland clarified that it wants a role only in respect of those renewals where there is an opportunity for choice of outputs, and in order to inform this choice. Transport Scotland does not want a role in routine or safety-critical renewal activities required to comply with Health and Safety legislation. In applying these criteria, Transport Scotland, Network Rail and ORR agree that this results in only three renewals being in scope (Carstairs, Perth re-signalling and the Integrated Electronic Control Centre (Edinburgh) (IECC)).
26. 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 will be included in the enhancements pipeline.
27. For the Carstairs renewal we will adopt a different approach which is explained in further detail below (see paragraph 87).

⁶ Consultation on the draft determination – Summary of comments and our response document is available [here](#).

⁷ The Scottish Ministers High Level Output Specification (HLOS) for CP6 is available [here](#).

⁸ Network Rail's current Network Licence (see Licence Condition 1), available [here](#).

28. There has been no agreement on Transport Scotland's role in the IECC 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.
29. There are some areas included in the HLOS which Network Rail is continuing to develop, including:
- its Scottish gauging strategy;
 - the journey time improvement plans (for both passenger and freight services);
 - the plan for freight growth;
 - key performance indicators for train service performance; and
 - metrics for both carbon emission reductions and to drive behaviours to reduce overall traction and non-traction energy use by the end of CP6.
30. Many of the respondents to the draft determination consultation noted the importance of these plans being in place in time for the start of CP6. Network Rail has provided assurance to us that its plans will be in place for the start of CP6. We continue to monitor Network Rail's progress with development of these plans and will review the drafts that it will submit to us at the end of November 2018. Transport Scotland will be involved in this review. If we consider that further analysis is required we will commission independent reviews of these plans.
31. There is also a question of how any work needed to deliver the requirements listed in paragraph 29 will be funded⁹. 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. 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.
33. 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 operations, support, maintenance and renewals (OSMR) activities, particularly given its obligations requiring it to maintain the capability of its network.

⁹ The current expectation is, however, that apart from delivery of the Scottish gauge requirement, all other requirements will not incur additional costs.

34. However, Network Rail has not included the cost of delivery of the gauging strategy in its SBP¹⁰. 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 (see Table 5).
35. 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 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.

Supporting improved passenger and freight performance

36. The funding included within PR18 will support what passengers and freight receive from the railway, both in terms of reliability and accommodating new services and growth. The rail network in Great Britain (GB) has supported more than a doubling of passenger journeys over the last 20 years and, outside of coal, growth in freight volumes.
37. To keep it running effectively requires ongoing maintenance and renewal; work that is often made more challenging by the intensity with which the network is used.
38. This also means that delivering reliable services to passengers and freight requires additional effort, as the network becomes busier. This is discussed further below.

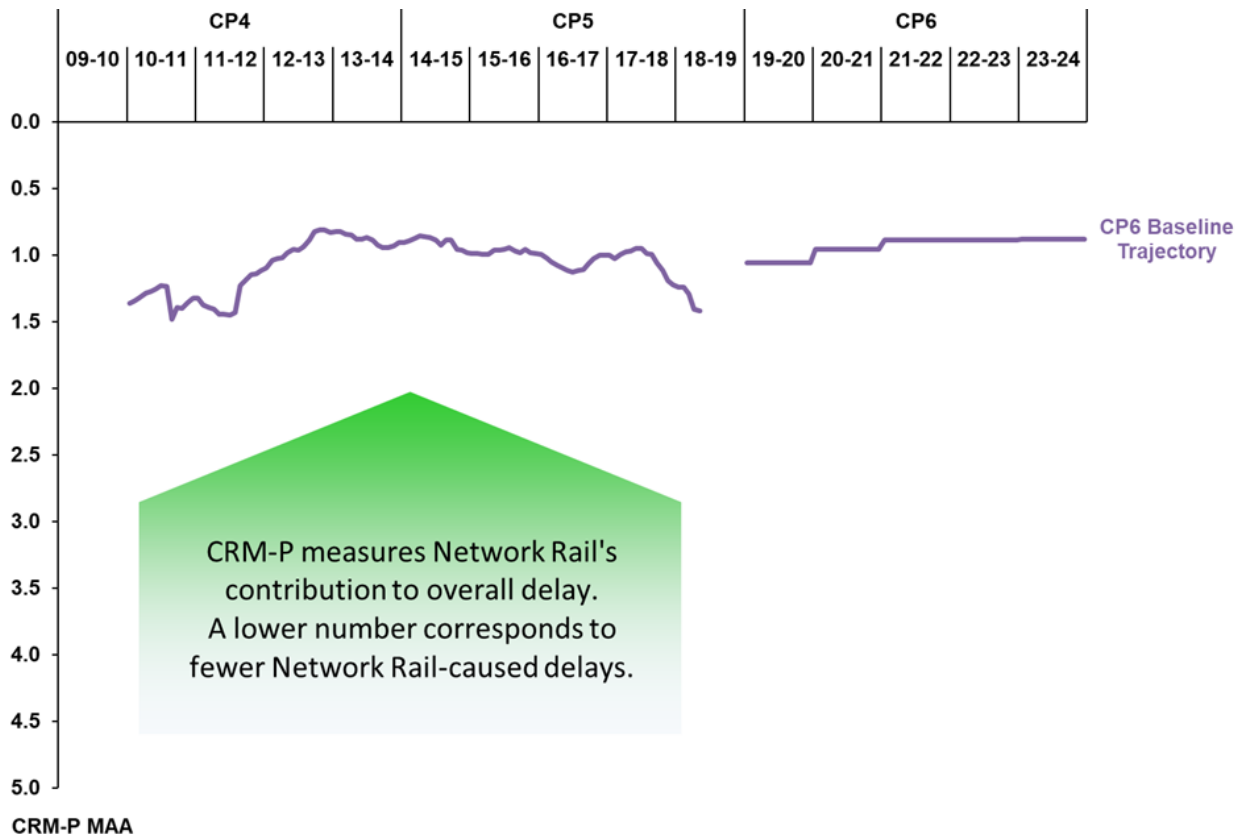
Network Rail's contribution to improved passenger performance

39. We have set out the performance levels that we expect the Scotland route to work to deliver, which reflect the requirements of the HLOS. We will also monitor the route's contribution to the delays experienced by passengers using a consistent route measure. This new measure is referred to as the CRM-P, and allows comparison between the Scotland route and routes in England and Wales.
40. CRM-P measures Network Rail's contribution to the delays experienced by passengers. This includes, for example, delays caused by the failure of signalling

¹⁰ 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.

equipment or the supply of electrical power to trains. As illustrated below in figure 1 (which sets out the Scotland route's historical performance of CRM-P), there is a considerable step up required in CRM-P performance in year one of CP6.

Figure 1: Network Rail Scotland route's delivery towards passenger performance and CP6 baseline trajectories



41. We have also set out our expectations on freight performance, namely that Network Rail should aim to deliver a Freight Delivery Metric-Route (FDM-R) of 94.5% in Scotland by the end of CP6. This reflects the requirements set out in the HLOS.
42. In addition to performance measures, there are other requirements that we are placing on Network Rail in relation to asset sustainability and passenger satisfaction.
43. The Scotland route has also responded to stakeholder feedback and included in its plans steps to improve the physical resilience of the Scotland network. Its plans include spend to optimise the benefits of taking a 'predict and prevent' approach to managing its infrastructure, building on remote condition monitoring spend in previous control periods. The Scotland route is also learning lessons from CP5. In response to the incident at Lamington (where scour damage caused the West Coast Main Line to be closed for seven weeks in 2016), it is increasing the amount of physical works to protect bridges at risk of scour damage.

Passenger and freight train service performance

44. In the HLOS, the Scottish Ministers set performance targets of 92.5% PPM for ScotRail services and 80% for right time arrivals¹¹ (RTA) of Caledonian Sleeper services. While the Scotland route fully supports the intent of working towards 92.5%, it considers that, in light of recent performance, this is unlikely to be achieved from the start of CP6.
45. In particular, in its response to the draft determination, the Scotland route confirmed its latest view on its performance trajectory that could be achieved for ScotRail and the associated route level CRM-P. The Scotland route has reflected on performance trends since the publication of its SBP and other factors, including the impact of it suspending 'skip stopping' (whereby services do not make scheduled stops in order to recover from earlier delays) as a performance management tool. It now considers it is unlikely to achieve PPM of 92.5% until year 3 of CP6. For years 1 and 2 it is forecasting PPM of 90.5% and 91.5%.
46. While we recognise that there are some potentially significant risks, we have decided that the ScotRail PPM target for each year of CP6 should continue to be set at the HLOS target of 92.5% and 80% RTA for Caledonian Sleeper services. The obligation on Network Rail is to achieve the PPM and RTA targets to the greatest extent reasonably practicable having regard to all relevant circumstances.
47. As well as measuring performance through PPM and RTA measures, we will also use the CRM-P measure to compare how much delay Network Rail causes to train services across all the routes. We agree with Network Rail's position that the CRM-P should align with the Scotland route's trajectory for CP6 performance, which reflects a performance level that we expect is as likely to be met as not. The CRM-P will also be used to set Schedule 8 benchmarks¹², which determine when payments for poor performance are triggered between Network Rail and operators.
48. Reflecting that there are specific HLOS targets for passenger performance in Scotland, the role of the CRM-P trajectory will be different in Scotland. While we will hold the route to account against its PPM and RTA targets, in the event of performance being below expectations, we will use CRM-P to provide further insight on the route's contribution to overall network performance (reflecting that CRM-P

¹¹ Right-time performance measures the percentage of trains arriving early or within 59 seconds of schedule.

¹² The schedule 8 regime compensates train operators for unplanned service disruption caused by Network Rail and other train operators.

records Network Rail-caused delay only). For consistency across our monitoring and reporting framework, we have set a regulatory minimum floor for CRM-P¹³.

49. The Scotland HLOS required delivery of a FDM-R for Scotland of 93% at the start of CP6, moving through staged improvements towards 94.5% at the end of CP6. The HLOS requirement is reflected in the form of FDM-R¹⁴, which measures the route's impact on the GB-wide FDM measure. We have concluded that this should be set in line with the levels required by the Transport Scotland HLOS.
50. Table 1 below provides an overview of each of the performance requirements for both passenger and freight operators in Scotland in CP6.

Table 1: Scotland performance requirements

	Network Rail's CP5 exit forecast	CP6 performance requirements in Scotland				
Measure	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
ScotRail (PPM)	89.3% ¹⁵	92.5%	92.5%	92.5%	92.5%	92.5%
Caledonian Sleeper (RTA)	80% ¹⁶	80%	80%	80%	80%	80%
Freight performance (FDM-R) (CP6 baseline trajectory)	95.1%	93%	Staged improvements			94.5%
FDM-R regulatory minimum floor¹⁷	n/a	92.5%	92.5%	92.5%	92.5%	92.5%
Route performance (CRM-P) (CP6 baseline trajectory)	1.18	1.06	0.96	0.89	0.89	0.88
CRM-P regulatory minimum floor	n/a	1.25	1.15	1.08	1.08	1.07

Encouraging new ways to improve performance

51. In our draft determination, we set out new proposals for a Performance Innovation Fund, whereby a moderate amount of funding would support innovative ways to

¹³ While we are adopting a different approach for ScotRail PPM and Caledonian Sleeper RTA targets, typically regulatory minimum floors provide an indication of the point below which we are highly likely to investigate whether or not Network Rail has breached its licence obligations.

¹⁴ The industry definition of this measure is: A measure of Network Rail's ability to deliver commercial freight services to destination within 15 minutes of scheduled time. Where this is not met, responsibility is assigned to a Network Rail Route based on the Delay, Cancellation or Service Variation events affecting each qualifying train.

¹⁵ ScotRail PPM and CRM-P CP5 exit forecast are both referenced in the scorecards and requirements supplementary document (Table 4.1).

¹⁶ Caledonian Sleeper RTA and FDM-R CP5 exit forecast are taken from the Scotland route's SBP.

¹⁷ The regulatory minimum floor is not a concept in 2018-19 (this applies to both the regulatory minimum floors for FDM-R and CRM-P).

improve passenger and freight performance. This fund is for all of GB. Innovative ways to improve passenger and freight performance might involve new operational approaches, research or changes to how industry rules apply in certain circumstances. There was significant support for this proposal, and some concern that the funding was not large enough.

52. The overall balance of decisions elsewhere in the final determination means that we can increase the funding available to the Performance Innovation Fund from £10m to £40m (of which £4m will be funded through the Scotland route settlement). We will work with Network Rail and other stakeholders over the coming months to agree suitable cross-industry governance arrangements for the fund.

Network capability

53. The Scotland HLOS sets out specific requirements around network capability, including gauging requirements. Maintaining network capability is also a requirement of the network licence. We commissioned a review of the current situation on network capability in Scotland and England & Wales, including whether Network Rail is on track to deliver the end of CP5 regulated output target and to help inform our monitoring and assessment for CP6. The findings from this work will be published separately from the final determination. In addition to complying with the requirements for gauging (see Annex 1), we expect Network Rail to implement the recommendations from this review.
54. We will continue to work with Network Rail to set the baseline that reflects the level of capability at the start of the control period. As part of this work we will consider whether the base requirement should be as we set out for CP5 (in terms of track mileage and layout, line speed, gauge, route availability, electrification type) or whether this should be amended. This will then provide the baseline against which we monitor compliance with the HLOS requirement.

Investing to protect long-term performance

55. Our final determination includes a number of decisions that focus on longer-term improvements in passenger and freight performance.
56. We have approved Network Rail's proposals for a substantial increase in the funding for the SO. This will support investment in timetabling systems and lead to an increase in dedicated timetabling resources for Scotland. These extra resources need to be used wisely. We note that Transport Scotland has concerns around the level of increase in SO funding compared with CP5. We have responded to the issues Transport Scotland raised in our separate consultation responses document.
57. We welcome Network Rail's proposals for improving both:

- the governance of the SO (by establishing a new Advisory Board to hold the SO to account for its delivery to customers); and
- the processes and controls the SO uses to make decisions about new investment (which will mean the SO's customers have a greater voice in determining how the new systems are developed and rolled-out).

58. We are also proposing changes to Network Rail's licence to embed the SO's role into Network Rail's organisational structure to sharpen the focus on this important part of the company.

Supporting improved safety

59. It is the responsibility of the Secretary of State to specify safety requirements for the GB rail network, as safety is a reserved matter.
60. Our scrutiny of Network Rail's proposed plans for CP6 has shown that there is evidence of growing maturity in its management of health and safety.
61. The Scotland route's proposals on safety are well founded. Amongst other things, its plan provides for improved resilience to weather events through: remediation of those sites at highest risk of scour; earthworks that currently require special inspections during adverse weather; and increased provision of remote monitoring equipment. The ongoing programme of work to manage vegetation is to be accelerated. There is also a commitment to protect the safety of track workers by continuing the route's (now longstanding) prohibition of unassisted red zone working¹⁸.
62. Across GB, Network Rail has targeted efforts at priority areas in order to deliver its health and safety strategy, the Home Safe Plan. In doing so, it has ensured its efforts are focused and has secured route commitment to deliver. It is promoting the use of RM3¹⁹ as a tool for securing excellence.
63. Network Rail's own assurance activities have been robust – resulting in progressive challenge to route proposals and securing improved arrangements. This is a positive development.

Spending money effectively

64. Reflecting its public sector status, the funds available to Network Rail in Scotland are effectively fixed. Our decisions have, therefore, been framed by how best to allocate this fixed funding, and when deciding to agree any change in spending we have

¹⁸ A red zone is a worksite which is not protected from train movements.

¹⁹ RM3 describes what excellent management capability would look like for the key elements of an organisation's health and safety management system as measured against five maturity levels.

looked at where this money should come from – in short, it is effectively a package of decisions where the income and expenditure must reconcile.

Scrutiny and challenge of business plans

65. We have looked at whether the costs included in Network Rail's plans are justified and reflect a reasonable estimate of achievable efficiency improvements. We have done this through scrutiny of the Scotland route plans, analysis of Network Rail's central processes and guidance and external reviews by technical consultants Nichols and Gleeds.
66. Network Rail's approach to planning and costing work has improved, however the evidence from our scrutiny pointed to the potential for the company to make further reductions to the cost of the work it delivers. This evidence is set out in detail [here](#).
67. Our draft determination set a challenge for Network Rail to identify £73m of additional efficiencies in Scotland (including both the Scotland route operating, maintenance and renewals costs and the Scottish allocation of central function costs). This was equivalent to increasing efficiency from about 9% to about 11%. In particular we identified significant inefficiencies in Network Rail's central functions.
68. Network Rail has responded positively to our challenge and has reallocated £35m of cost pressures that it included in its efficiency assumption to base costs and included £63m of additional efficiency savings in its plans. This includes both savings that are expected from further route initiatives and a further level of efficiency stretch (with as-yet unidentified initiatives).
69. We note that Network Rail's proposal included significant efficiency improvements in central functions. Our review of Network Rail's response identified an £8m cost reduction for materials purchased in CP5, which had been misclassified as a CP6 efficiency.
70. Taking account of these changes means that Network Rail is now committed to delivering efficiencies of £314m over CP6; up from £224m in its February 2018 proposals. This corresponds to a 12% efficiency improvement over the five-year period (as set out in Table 2 below).
71. There was some evidence that Network Rail could go further on efficiency, including from analysis undertaken by consultants CEPA. However, on balance, we have accepted the routes' efficiency proposals, and consider that they include a sufficient degree of stretch and are a reasonable baseline against which to hold the company to account. This approach also has the benefit of accepting plans put forward by the Scotland route, which maintains its ownership of the plans. This will strengthen our ability to hold the routes to account for delivery of these efficiency improvements.

72. Table 2 below shows Network Rail’s CP5 forecast for efficiency, what it proposed in its plan and our assumptions for CP6.

Table 2: Network Rail efficiency (exit to exit basis*, + efficiency - inefficiency)

	£m, 2017-18 prices			%		
	CP5 forecast	February SBP	Final determination	CP5 forecast	February SBP	Final determination
Opex	22	18	22	10%	7%	8%
Renewals	-21	35	51	-5%	11%	14%
Total	1	53	73	0%	9%	12%

* Exit to exit efficiency measures spending in the last year of CP6 with the last year of CP5. Over the whole of CP6 Network Rail in Scotland proposed efficiencies of £224m in its plan (including central costs), which increased to £314m in the final determination.

73. While we accept the majority of Network Rail’s proposals, we have not agreed with its view on property income in other single till income, where we have retained our view from the draft determination that Network Rail can deliver £3m more income for Scotland. Network Rail had proposed £1m of additional income for Scotland.

74. Also, Network Rail identified that the Scotland route’s plan incorrectly included toilet charge income at managed stations in its plan. As Network Rail will stop charging for toilets at its managed stations in 2019, we have adjusted for this issue in our final determination. Therefore, net operating costs in Scotland have increased by £2.5m for this issue compared to our draft determination.

Central costs

75. In the draft determination we said that Network Rail’s allocation of central costs to Scotland uses well-established methods. However, we thought it was time to reconsider whether such traditional methods are suited to a devolved funding environment. We committed to carrying out a limited but more detailed review of central costs before the final determination on some aspects of this process.

76. Following our draft determination, we had further detailed discussions with Transport Scotland and challenged Network Rail on the allocation of costs to the Scotland route. From this, Network Rail demonstrated that it had taken a reasonable approach to the allocation of central costs across routes in its plan but we expect it to keep the methods it uses under review in CP6 and where appropriate update its methodology.

British Transport Police (BTP) costs

77. As set out in our draft determination, the governments have confirmed that Network Rail's share of BTP costs for the whole of GB will be separately funded. Therefore, our expenditure forecasts for Scotland in the final determination are £40m lower than in Network Rail's SBP.

Improving asset condition

78. The position on asset sustainability in Scotland is better than in the England & Wales routes, with the level of sustainability above the baseline at the end of CP4. However, there is still a small forecast decline in sustainability as measured using the Composite Sustainability Index (CSI), from +3% to +2.3% when measured against the start of CP5, a reduction of 0.7 percentage points over CP6. In the draft determination we estimated that this would involve around £67m of extra spend to eliminate. The change in the track and earthworks measures are the main drivers for the decline over CP6 in Scotland.
79. For CP6 we are requiring that Network Rail must deliver the baseline target for CSI of 2.3% in the final year of CP6. We have set a regulatory minimum floor for this measure, which is 1.8%. Further detail on this requirement can be found in Annex 1.
80. In light of the better position on asset sustainability, there is not the same need to reprioritise expenditure to address asset sustainability in Scotland as is the case in the England & Wales routes. However, in its response to the draft determination, the Scotland route set out that it would require additional funding for an issue that had materialised since the drafting of its plan.
81. Network Rail explained that in CP6 it will need to replace a number of bridges that are at risk of failure linked to high alumina cement. This is a recent issue. This risk was highlighted in the assumptions, but not costed in the Scotland route's plans. It has since undertaken further work and confirmed that it will require an additional £20m to address this issue.
82. Following further discussion with the Scotland route on this issue, we have decided to add £20m to the Scotland route's funding for renewals to ensure there are sufficient funds available for it to manage this issue.

Delivering renewals effectively

83. To improve the efficiency with which renewals are delivered, there are two areas that require continued focus - the effective profiling of work over CP6, and considering GB supply chain availability and readiness for the start of CP6.

84. The profile of expenditure in the Scotland route's plan shows some peaks. However these relate to availability of specialist plant in the case of track renewals and major re-signalling schemes. It is anticipated that there may be a little movement between years (subject to funding restrictions), however we expect the route to maintain a smooth profile of work within CP6, as well as an orderly transition into the following control period. A smooth profile of work is likely to be more efficient and better for supply chain management.
85. Considering the reliance on specialist suppliers, we expect Network Rail to improve its engagement with the supply chain, and the information available on the likely volume and nature of work in each year. This will be particularly important given the potential impacts from Brexit.
86. With only five months until the start of CP6, it is important that the Scotland route is in a position to make a good start to CP6 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.

The Carstairs renewal

87. In its plan, 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, principally around whether the renewal could be linked with an enhancement project (HS2 in particular).
88. Following publication of its plan, 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).
89. 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 to £150m. To increase the funds available within the OSMR envelope, the Scotland route has asked for £50m of the efficiency savings identified in our draft determination to be retained within the route.
90. 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.
91. We 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.

92. 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 1²⁰) 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 3²¹.
93. 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.
94. Given the points made above in relation to Transport Scotland's role in approving certain renewals in CP6, Transport Scotland will be involved in the efficient cost review. We will involve Transport Scotland in the Scotland route's plan for Carstairs both ahead of and during the cost review to ensure the optimal solution is being delivered.
95. 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.

Investment in research & development

96. We strongly support expenditure on research and development (R&D) and see it as an important way for Network Rail to deliver efficiency, improved asset management and performance improvements over time. However, Network Rail's initial case for a substantial increase in R&D spend was poorly justified.
97. In response to our challenge, Network Rail has revised its plans, provided significant supporting evidence and updated its proposed governance arrangements. Following our assessment of this new evidence, we support a GB-wide fund of £245m for R&D in CP6 (of which £26m will be funded from the Scotland route settlement). This is broadly in line with expenditure levels in CP5. However, this expenditure is subject to Network Rail finalising suitable governance arrangements and it agreeing these with ORR. In reviewing these arrangements we will, in particular, be looking at how

²⁰ GRIP 1 is output definition stage.

²¹ GRIP 3 is where there is an assessment of potential options and selecting the most appropriate one to deliver stakeholders' requirements.

governance supports third-party funding and brings in the interests of passengers, funders and freight and train operators.

98. Transport Scotland has stated that it supports R&D. However it was clear in its response to the draft determination that it considers that there must be a clear line of sight between proposals for R&D and Scottish Government strategic priorities, including outcomes for Scottish rail passengers and freight customers. Transport Scotland also wants visibility of how R&D spend can benefit the Scottish economy (i.e. evidenced by research from, for example, Scottish Universities).
99. Network Rail's original proposals for R&D did not provide sufficient evidence on how the R&D funding would be spent, including the potential for this expenditure to involve institutions in Scotland. The company has since explained how it is already engaged with Strathclyde University (undertaking scour research) and is working with the UK Rail Research and Innovation Network, Heriot-Watt University and other universities that have expertise in specific areas. It is also in discussions with the Oil and Gas Innovation Centre based in Aberdeen about how it can collaborate across programmes and share expertise.
100. For engagement with funders on R&D in CP6, Network Rail is proposing a new industry R&D Advisory Board and has invited Transport Scotland to be on this board. The Scotland route and R&D programme team should continue to involve Transport Scotland in how R&D funding is spent in CP6 and clearly identify where R&D funding is being spent in Scotland. ORR will be a member of the R&D Advisory Board and we will use this forum to help monitor how Network Rail is taking account of the priorities of the Scottish Ministers.

Investment in the Digital Railway programme

101. While not a specific Scottish HLOS requirement, in its Rail Infrastructure Strategy consultation 2016, Transport Scotland set out that the Scottish Government is keen to support industry innovation to improve the efficiency, resilience and quality of passenger-facing services. It committed to working with industry partners across Great Britain to support the development of proposals for a modernised railway, including the introduction of new electronic signalling solutions.
102. In its response to the draft determination, Transport Scotland has requested a specific digital rail strategy for Scotland. Transport Scotland has explained that it has little confidence that the Scotland route's signalling strategy for CP6 adequately reflects the Scottish Government's strategic priorities, including sustainable competitive costs and delivery of the necessary performance, reliability and journey time improvements.
103. To address Transport Scotland's concerns about the Scotland route's signalling strategy, the Scotland route is required to create a long term, whole system signalling

strategy for Scotland incorporating its existing signalling strategy, the elements of the GB Digital Rail Strategy applicable to Scotland and rolling stock plans.

104. Network Rail is in the process of developing a GB-wide strategy for digital rail from CP6 onwards. This will be a renewals-based long term plan that links together infrastructure and train investments. Once developed, the Scotland route's whole system signalling strategy should feed into this GB-wide digital rail strategy so that the Digital Railway programme team is aware of the opportunities, as well as any limitations, for future implementation of digital rail in Scotland.
105. Transport Scotland is also of the view that the work of the Digital Railway Programme Board does not consider the position in Scotland in enough granular detail; that there is currently a greater focus on the Department for Transport's priorities; and that this needs to change. Throughout CP6, we require Network Rail to provide a greater level of assurance to Transport Scotland that the priorities of the Scottish Ministers are fully reflected in the digital rail plans for Scotland. Transport Scotland must also be involved in the development of the GB-wide strategy for digital rail.
106. This leaves the issue of how the Digital Railway programme should be funded. Based on Network Rail's plans, Transport Scotland's share of the Digital Railway programme team costs is £22m. In its response to the draft determination, Transport Scotland refers to the extensive discussions held with Network Rail and ORR on digital rail. In these discussions, Transport Scotland has consistently rejected proposals that it should fund the Digital Railway programme team as digital rail is not a requirement in the Scottish HLOS. It wants to be able to decide what funds are made available for digital rail (and when) from the remaining SoFA funding.
107. We have given the issue of funding careful consideration. However, as set out in the draft determination, we maintain our view that the GB system is an integrated system. While there are ultimately a number of costs that individual funders could say they do not benefit from, they all benefit from the whole system, including its integrated nature. There is a balance between meeting a funder's requirements and avoiding what could be seen by other funders as adversely affecting the integrity of the railway as a system. This is particularly the case if funders could change their mind in the future.
108. Reflecting this, a proportion of the costs of the Digital Railway programme team (£22m) should be allocated to Scotland, as the rail network has to work as a GB-wide system on a long-term basis.

Encouraging effective delivery

109. This is the first periodic review since Network Rail was reclassified into the public sector. In response, we have made a number of changes to our approach, with a

view to delivering an effective package of incentives on the company to deliver against its plans. These include the changes made to how risks and changes in circumstances are managed, and how we monitor, report on and hold Network Rail to account.

Ownership of plans and collaboration

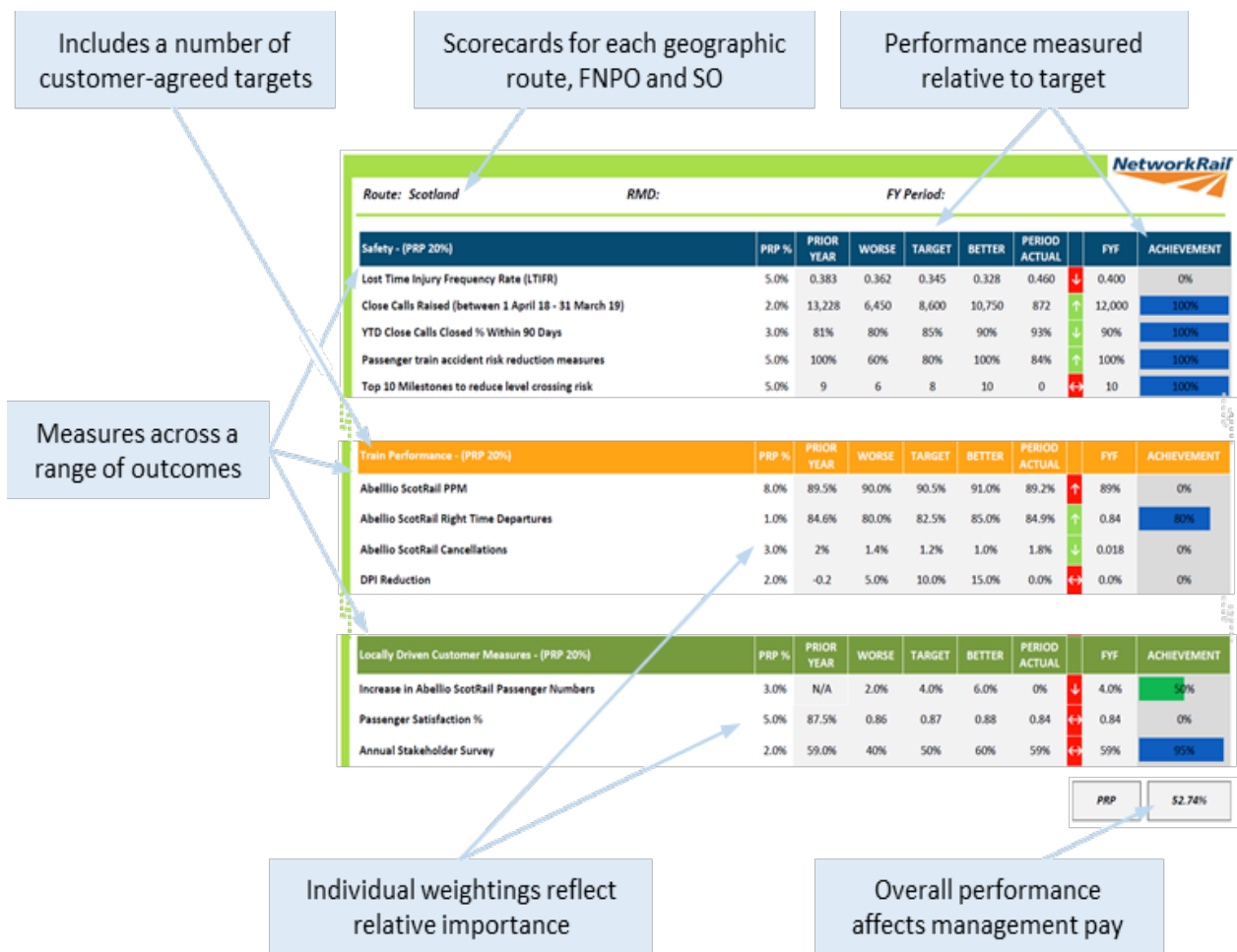
110. An important aspect of holding Network Rail to account is the ownership of the company's plans. We have challenged the company to improve its plans in a number of areas, and it has responded positively to this.
111. In considering Network Rail's response to our draft determination, we have been mindful of the need to maintain route and SO ownership of the business plans. We have not sought to re-write those plans, or to make minor changes, just because our view differed slightly from that of the company. Our approach here was helped by the overall good quality of the plans and the way that changes were made in response to our draft determination.
112. This means that the plans underlying the final determination for Scotland are those put forward by the Scotland route, the FNPO and by the SO. It now falls to each of those teams to deliver against their own plans.

Adapting plans over time

113. The Scotland route and SO plans reflect what we currently consider needs to be done to improve outcomes for passengers and freight over the next five years. However, circumstances will change, and the Scotland route and the SO will need to update their plans in response. This happens in a number of ways:
- During the year, the work undertaken on the railway will change, as the Scotland route makes decisions about relative priorities and how best to deliver effectively against its commitments to customers and the Scottish Ministers.
 - Every year, we expect the Scotland route to update its scorecard. Scorecards capture what the route plans to deliver for customers and funders, providing a balanced picture across different aspects of delivery, including on safety, asset condition and train performance. Ideally, they should reflect agreement with each customer on a number of key measures, so that scorecards reflect what is particularly important to them. A summary of how scorecards work is set out below in Figure 2. We also expect Network Rail to routinely update the Scotland HLOS tracker²² (this is discussed further in Annex 1).

²² The Scotland HLOS tracker is available [here](#).

Figure 2: The role of scorecards in CP6



- Related to this, we expect the Scotland route and the SO to update their business delivery plans. This process should involve stakeholders and will be an important opportunity for the Scotland route and the SO to apply the lessons learnt from engagement during PR18.

114. We have confirmed our proposals to introduce new processes to facilitate changes to route and SO budgets and/or accountabilities, but require transparency and consultation before these changes are made. We are also introducing the potential for ORR to prevent certain changes in exceptional circumstances that would reduce how well regulation can provide incentives for the company to improve (for example, where it reduces the effectiveness of making comparisons between routes). These changes will be backed by new licence conditions.

Managing uncertainty and risk funding

115. A further aspect of maintaining the Scotland route and SO accountability for delivery of their plans is the provision of appropriate funds to match the risks the company is managing.

116. We consider the total risk funding of £284m (in 2017-18 prices) proposed by Network Rail for Scotland to be appropriate. Given there are separate funding arrangements for Scotland, risk funding for Scotland will be ring-fenced from the amounts for the England & Wales routes. Reflecting this, all risk funding for Scotland should be held at route level. However, some of this risk funding could be required for financial risk that materialises in central functions, where the costs of central functions are allocated to Scotland. We discuss the governance arrangements relating to financial risk in our financial framework document²³.

Holding Network Rail to account in CP6

117. We need to put in place the arrangements for monitoring the company and for holding it to account. This will build on the changes that we are making to our biannual Network Rail Monitor document and monitoring teams, to focus more on route comparison.

118. In CP6, Network Rail will use a 'route comparison scorecard' (which contains a set of comparative data looking across routes). This will compare performance between routes in relation to all consistent route measures. The measures that the Scotland route is required to report on are set out in Annex 2.

119. To sharpen the incentives on Network Rail to deliver against its plans, we will do the following:

- **Monitoring delivery of CP6 requirements:** some of CP6 requirements that Network Rail is required to deliver are set out in the route scorecard. The Scotland route has consulted with its customers on its route scorecard. Where the Scotland route and train operators agree scorecard measures and trajectories, our assessment of Network Rail's performance will particularly consider these agreed trajectories, and use them as important inputs into our monitoring, reporting and enforcement.
- **Monitoring delivery of the HLOS requirements:** As many of the requirements set out in Annex 1 do not feature on Network Rail's route scorecards, we have worked with Transport Scotland and Network Rail to develop a way in which we can monitor progress of Network Rail's delivery. This has resulted in Network Rail establishing a HLOS tracker, in addition to its route scorecard. The HLOS tracker will allow us to monitor delivery of each of the requirements set out in Annex 1.
- **Improve the monitoring of whether efficiency improvements are likely to be delivered,** by identifying a set of leading indicators such as the proportion of

²³ PR18 final determination Supplementary document – Financial framework, available [here](#).

required possessions that are booked, which provides an indication of whether the planning of work is sufficiently well advanced.

- **Continue to monitor delivery of the Donovan recommendations relevant to Network Rail** to drive improvements in performance. We have recently asked an independent reporter to review the Scotland route's implementation of the recommendations made by Nick Donovan in March 2018. We need assurance from the Scotland route that it is committed to delivering the recommendations that are relevant to it, to ensure performance improves throughout CP6. This is particularly important given forecasts for CP5 exit (as outlined in Table 1 above). We will publish the findings of this review in due course and hold the Scotland route to account to address any Network Rail owned recommendations made.
- **Monitor and report on the performance of the Scotland route and the SO against the CP6 plans**, and make greater use of public **comparisons** across routes and the SO, including on the performance levels delivered to customers, putting more scrutiny on those parts of the company that are lagging behind. Equally, we expect to take the opportunity to highlight the successes of the individual management teams, supported by our own route-based monitoring teams. A route comparison scorecard will inform these comparisons.
- **Improve the monitoring of efficiency and financial performance.** We will provide a better understanding of the efficiency of Network Rail's routes by putting greater emphasis on reviewing and reporting on how routes have delivered efficiency improvements. We will provide more assessment of cost drivers, unit costs and productivity measures over time and across routes. We will also make greater use of information from our safety role, for example, drawing on insights from health and safety reports where relevant.
- **Update our approach to escalating concerns and enforcement**, so that we make better use of reputational incentives alongside our existing licence enforcement powers. This will include holding the management teams of the Scotland route, the SO and other business units to account for their actions, including through the potential for ORR hearings between Scotland route/SO and affected parties; a change that we will reflect in an update to our monitoring and enforcement policies on which we plan to consult later this year.

120. In addition, we are making a number of changes to Network Rail's licence. As noted above, this includes: reflecting the company's new structure (particularly the distinction between routes and the SO); introducing additional obligations that will protect the interests of freight, charter and national passenger operators; and reflecting the new process for managing changes.

121. A further change is to place an obligation on Network Rail to ensure the routes and SO can choose how to procure the goods and services they need, unless the

company sets out why this approach is inconsistent with its other obligations in the licence. This will allow routes and the SO the ability to choose how they procure the goods and services they need – introducing greater contestability into the provision of goods/services to routes and the SO by the company's central teams.

Charges and incentives

122. Our final determination decisions are consistent with the high-level decisions that we have already set out in respect of the charges that operators will pay and the financial incentives in place to encourage improved performance on the network. This will lead to a major simplification to charges and incentives, with the removal of the route-level efficiency benefit sharing mechanism, volume incentive, capacity charge and coal spillage charge, and simplification of other freight charges.
123. These changes were broadly welcomed by stakeholders. However, freight operators raised concerns about the increases in variable charges; an increase principally caused by the higher cost of repairing the wear-and-tear caused by use of the network. These operators argued that our proposals for capping and phasing-in these increases did not go far enough.
124. We have considered these arguments carefully, and are of the view that our proposals strike the right balance between the need to protect operators and freight users from unexpected, large changes in total variable charges and the importance of charges moving towards the costs caused through the use of the network. This establishes a credible path towards cost-reflectivity over-time, providing appropriate incentives on operators to reduce the costs they cause on the network. We are, therefore, confirming our earlier position on the capping and phasing-in of variable charges.
125. In particular, we confirm the following in respect of charges and incentives:
- **Variable network access charges for freight and charter operators will be capped**, so that variable usage charges (VUC) increase over time but only fully reflect the costs of wear-and-tear on the network (as required by relevant legislation) towards the end of CP7. This will mean that, on average, total variable charges will remain flat for freight and charter operators for two years and then increase over the last three years of CP6; variable usage charges will be capped to achieve this profile. The average annual increase in the total variable charges over CP6 will be 1.9% for freight and 1.0% for charter, after adjusting for inflation.

In addition, when adjusting charges for inflation, we will now use CPI to index them instead of RPI. This means charges will be on average 5% lower (in nominal/cash terms) than they otherwise would have been at the end of CP6. Greater collaboration between Network Rail and operators to improve efficiency

also has the potential to mitigate further any increases in subsequent control periods;

- **Charges that recover fixed costs of the network will be reformed to support competition in passenger services.** New open access passenger operators will face higher charges where their services operate within the 'interurban' market segment, as in these locations demand is likely to be sufficiently strong to allow these costs to be met. This can support them having greater access to these parts of the network. These additional charges will be reflected in our assessment of the likely benefits generated by open-access applications and will inform our decisions on whether to grant access to the network. Existing open-access operators will be protected from these charges over CP6 for their existing business;
- **The introduction of infrastructure cost charges for biomass for electricity generation will now be subject to a five-year phasing-in period.** We considered whether there was a sufficiently strong case for phasing-in the change to biomass charges, and met with Drax (the UK's largest consumer of biomass) a number of times. We were mindful of the need to give parties time to renegotiate contracts and otherwise adjust to the introduction of these charges, and so agreed with its proposals for a phasing-in period; and
- **Financial performance incentives on the company will be updated,** including to reflect new research that ORR commissioned on how passengers plan their journeys and the impact of delays. More generally, the incentives on punctuality and delay (notably Schedules 4 and 8) will be recalibrated to reflect the most recently available data, and we welcome the industry-led process that will deliver many of these updates.

Summary

126. Network Rail's plans were a significant step towards securing improvements for passengers and freight customers in the next control period. Network Rail's response to our challenge and the updates it has made to the plans are a further step forward. Reflecting this, we set out below the final expenditure figures for Scotland.

127. There are two revenue requirement figures relating to Scotland:

- **the revenue requirement for the Scotland route** (using a 'building blocks' approach). This can be found in Annex 3; and
- **a total Scotland revenue requirement**, set out in Table 3 below, which is the sum of: the revenue requirement for the Scotland route; the amount recharged by the Scotland route to the FNPO; and the share of the FNPO's own support and operations expenditure, and recharged SO costs, attributable to freight operations in Scotland.

128. Table 4 below sets out our assumptions for efficiency in Scotland in CP6 (the Scotland route's efficiency assumptions for CP6 can be found in Annex 3).

Table 3: The Scotland revenue requirement (2017-18 prices²⁴)

£m (2017-18 prices)	CP5		CP6					
	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	45	235	50	48	47	47	47	239
Support	42	219	60	61	60	57	58	295
Maintenance	121	600	145	145	141	142	141	715
Renewals	343	1,683	377	510	455	403	315	2,061
Schedule 4 and 8	23	134	15	18	18	15	13	79
Traction electricity, industry costs and rates	66	299	64	66	71	80	81	362
Route-controlled risk funding	n/a	n/a	18	36	58	79	93	284
Contingent asset management funding	n/a	n/a	0	0	0	0	0	0
Route contribution to group portfolio fund*	n/a	n/a	0	0	0	0	0	0
RPI/CPI differential adjustment**	6	(27)	13	25	32	39	42	150
Gross revenue requirement	645	3,143	741	910	882	862	790	4,185
Other single till income	(29)	(159)	(34)	(35)	(36)	(36)	(37)	(179)
Net revenue requirement	616	2,983	706	874	846	826	753	4,006

* This is the allocation of the cost of the centrally-held group portfolio fund to the routes.

** This is the adjustment for the change from RPI to CPI as explained in the financial framework supplementary document.

Table 4: Summary of our efficiency assumptions for Scotland for CP6²⁵

%, exit to exit basis	CP6				
	2019-20	2020-21	2021-22	2022-23	2023-24
Operations	-2.2%	3.8%	5.6%	6.1%	6.6%
Support	-1.9%	-2.0%	0.4%	1.0%	1.2%
Maintenance	2.1%	5.6%	8.3%	9.4%	11.1%
Renewals	3.9%	8.6%	14.4%	12.3%	13.9%
Total	2.5%	7.0%	11.6%	10.4%	11.5%

²⁴ Uplifted for CPI/RPI differential – see illustration in Table 1.2 in chapter 1 PR18 final determination Supplementary document – Financial framework.

²⁵ A positive number is efficiency, a negative number is inefficiency.

Affordability

129. The Scottish Ministers' SoFA covered Network Rail's OSMR activities and included some funding during CP6 for railway improvements. These improvements are not restricted to enhancements on Network Rail's network. The approach to investment will be governed by the Scottish Government's Rail Enhancement and Capital Investment Strategy²⁶.
130. For our affordability assessment, we only needed to consider Network Rail's OSMR plan. To do this we required clarity from Transport Scotland about how much funding in its SoFA was for Network Rail's OSMR. 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 after our assessment of the costs of Network Rail's OSMR (net of other single till income).
131. Table 5 shows the income and expenditure required to fund Network Rail's OSMR plan in Scotland. It shows that the outputs required by Transport Scotland's SoFA are affordable. The income shown in the table is lower than the total funding in Transport Scotland's SoFA because we have not included the funding available for enhancements and other industry improvements, as this is outside the scope of our determination.
132. The income and expenditure assumptions in the PR18 determination column reflect the changes that have happened to the forecasts since Transport Scotland's SoFA was published.
133. In addition to enhancements and other industry improvements, there are uncosted HLOS requirements (in particular, gauging) that will be funded from the balance in the SoFA if necessary. Therefore, we are discussing with Transport Scotland and Network Rail how the remaining balance in the SoFA should be treated.
134. Total expenditure in our final determination for Scotland is approximately £0.2bn higher than assumed in the Scotland SoFA, largely because of increased traction electricity costs (c. £0.1bn). Traction electricity costs increased because traffic forecasts and rates have both increased.
135. The total income in our final determination for Scotland is approximately £0.2bn higher than assumed in the Scotland SoFA largely because of the previously mentioned increases to traction electricity (c. £0.1bn). Also, other variable charges have increased, mainly VUC, because of higher rates and traffic forecasts.

²⁶ The Scottish Government's Rail Enhancement and Capital Investment Strategy, March 2018, is available [here](#).

136. We accepted Transport Scotland's proposal on FTACs, which are £1.5bn, which is £0.4bn higher than the SoFA assumption. This increase is more than offset by a £0.5bn reduction in network grants compared to the assumption in the SoFA.

Table 5: Scotland affordability position

£m, cash prices	SoFA	Network Rail's SBP	Final Determination
Variable charges	(269)	(476)	(621)
Fixed charges	(1,100)	(1,100)	(1,500)
Schedule 4 ACS Income	n/a	(130)	(81)
Schedule 4 expenditure	n/a	140	81
Net Schedule 4 & 8	14	10	(0)
Total charges	(1,355)	(1,565)	(2,121)
Other single till income	(98)	(131)	(127)
Other operating income	(110)	(109)	(88)
Network grants	(2,794)	(2,794)	(2,245)
Total income	(4,357)	(4,600)	(4,581)
Operating costs	1,747	1,925	1,918
Renewals	2,360	2,349	2,332
Risk funding	250	325	330
Total expenditure	4,357	4,599	4,581
Balance	0	(1)	0

Next steps

137. Network Rail will now consider our final determination and whether it can formally accept this. If it exercises its right to object, this could lead to a review by the Competition & Markets Authority.

138. We will also begin the preparation for publishing legal 'review notices' in December 2018 setting out the changes to relevant access contracts needed to give effect to the determination. We also expect to commence the statutory process to modify Network Rail's network licence at this point.

139. In parallel, we will be working with Network Rail and operators to prepare for the wider implementation of PR18. This includes the following.

- **Delivery plan:** By 31 March 2019, Network Rail will publish its delivery plan for CP6, setting out what the company will deliver for its customers and funders over 2019-24. This will have two key functions: to allow stakeholders to plan their businesses with a reasonable degree of assurance and to provide a transparent baseline against which Network Rail will report progress, helping us to monitor delivery and hold it to account. The delivery plan will set out: how Network Rail's planned activities will deliver the requirements set out in the final determination; the measures we require Network Rail to forecast (to indicate planned performance); and the level of disaggregation at which it should report progress against these forecasts. It will also include Network Rail's revised financial forecasts. Network Rail has confirmed that it will continue to engage closely with stakeholders on key aspects of the delivery plan.
- **Monitoring and enforcement policy for Network Rail:** In November 2018 we will publish a consultation setting out key aspects of our policy for monitoring and economic enforcement in CP6²⁷. The policy will set out how ORR will monitor Network Rail's performance at route and SO level, and the role of customers and other stakeholders. It will also cover Network Rail's compliance with the network licence.
- **Infrastructure cost charges (ICCs):** we will consult on two sets of implementation issues. First, in respect of the application of ICCs to open access operators, we will publish a consultation in December 2018 which, in particular, will consider the appropriate definition of the interurban market segment (which will determine which new open access services will pay the ICC). Second, in spring 2019 we will consult on the appropriate baseline to use for the calculation of ICCs for franchised operators.
- **Performance innovation fund (PIF):** we will work with Network Rail and the wider industry over the coming months to design the PIF. This will include matters such as: setting out more detailed criteria for what type of projects can be funded by the PIF; establishing how the PIF will be governed; and setting expectations for how knowledge gained through projects funded by the PIF should be captured and disseminated across the industry.
- **Collaborative working guidance:** During consultation with stakeholders, we identified some perceived barriers which could inhibit industry building on existing collaboration and achieving further benefits, such as how the network licence or wider obligations on Network Rail are interpreted. Reflecting this, we

²⁷ When the consultation on monitoring and enforcement policy for Network Rail is published in November 2018, this will be available on our [website](#).

will publish guidance setting out our views on what arrangements are likely to be permitted. We will aim to publish the guidance by 31 March 2019.

140. In addition, we have set out our intention to take forward a **review of delay attribution**. We shared a draft remit for this work with the Delay Attribution Board in early 2018, and explained that work on this review – including seeking views on the appropriate scope – will commence after the PR18 final determination is published. Reflecting this, we propose to begin work on this review in earnest in 2019.
141. We will also continue to discuss with governments and Network Rail how **the budget flexibility rules** that the company will be subject to will work in practice. This includes the link to enhancement expenditure where the profile of spend will depend on decisions taken by the governments under their pipeline approaches.
142. The key forthcoming milestones for PR18, up to the commencement of CP6, are included in the [PR18 timetable](#).

Annex 1: Scotland requirements

1. In our draft determination we set the outputs that Network Rail is expected to deliver throughout CP6. These requirements reflect what the Scottish Ministers want Network Rail to deliver.
2. Each requirement is set out in Table A.1 below. For further detail on each requirement please refer to our draft determination²⁸.
3. Table A.1 sets out the obligations, in the form of reasonable requirements under the licence, on Network Rail. Network Rail must deliver each requirement to the greatest extent reasonably practicable, having regard to all relevant circumstances. If Network Rail fails to do this we would consider whether this constitutes a licence breach²⁹.
4. In monitoring Network Rail's delivery of each of these requirements, we will take into account where Network Rail is partly reliant on external parties to deliver the requirement and hence Network Rail will need to be clear on its own planned contribution. In the event that it considers the accountability specified is no longer appropriate at any point during CP6 Network Rail must advise us, and propose an alternative accountability for our approval, in accordance with ORR's Managing Change Policy, if applicable³⁰.
5. To monitor progress against each of the requirements below, Network Rail has developed a HLOS tracker which has been jointly agreed with ORR and Transport Scotland³¹. This tracker will allow ORR to monitor Network Rail's delivery of each of these requirements. Network Rail will be required to keep the HLOS tracker up to date.
6. To align with our approach to monitoring Network Rail's performance in CP6 where our preference is for early resolution of issues, throughout CP6 Network Rail must be transparent about risks that may materialise to the delivery of any of these requirements.

²⁸ 2018 periodic review: ORR's Draft Determination – Summary of conclusions for Scotland, (June 2018), available [here](#).

²⁹ If Network Rail fails to deliver a reasonable requirement, ORR will go on to consider whether, in the circumstances of the case, Network Rail is fulfilling its duty under Licence Condition 1.

³⁰ ORR's Managing Change Policy, available [here](#).

³¹ The Scotland HLOS tracker is available [here](#).

Table A.1. Summary of what Network Rail is required to deliver in CP6

No.	Network Rail requirement for CP6	Accountable
Passenger journey time improvements		
1	<p>Working with other parts of Network Rail (including the Scotland route and the FNPO route) and with industry and government stakeholders, develop a plan to deliver the passenger journey time requirements to deliver a mile per minute target of 1.587 (by December 2019) and 1.576 by December 2024.</p> <p>The plan must be:</p> <ul style="list-style-type: none"> • developed in cooperation with the ScotRail Franchise; • consulted with Transport Scotland and stakeholders; • provided to ORR by 30 November 2018 for review; • finalised and provided to all affected parties by 31 March 2019; and • updated and amended as appropriate through CP6. <p>Throughout CP6, Network Rail must also oversee the delivery of the actions set out in the plan and report on progress.</p>	System Operator
2	Network Rail to deliver its obligations from the plan during CP6.	System Operator
Passenger train performance		
3	ScotRail Franchise PPM of 92.5% for every year of CP6.	Scotland route
4	Caledonian Sleeper Franchise Right Time Arrival target of 80% for every year of CP6.	FNPO
5	<p>Develop and monitor progress against a suite of KPIs to support delivery of performance and National Rail Passenger Survey (NRPS) targets that are:</p> <ul style="list-style-type: none"> • developed in cooperation with the ScotRail Franchise; • consulted with Transport Scotland and stakeholders; • provided to ORR by 30 November 2018 for review; • finalised and provided to all affected parties by 31 March 2019; and • updated and amended as appropriate through CP6. 	Scotland route
6	<p>In Scotland, we will primarily be holding Network Rail to account for delivery of the PPM target of 92.5%.</p> <p>We will hold the route to account against its PPM and RTA targets, in the event of performance being below expectations, we will use CRM-P CP6 baseline trajectory (refer to Table A.2 in Annex 2 for details of the baseline trajectory) to provide further insight on the route's contribution to overall performance (reflecting that CRM-P records Network Rail-caused delay only).</p>	Scotland route

No.	Network Rail requirement for CP6	Accountable
Cross-border routes		
7	We require Network Rail to use reasonable endeavours to plan to keep at least one cross-border route available at all times and ensure that journey times on the available cross-border route are kept as short as possible.	System Operator
8	Where circumstances require short-duration, minor variations to the available route, Network Rail must alert passengers, train and freight operators, funders and ourselves, as far in advance as is practicable.	System Operator
Passenger satisfaction		
9	<p>Do everything reasonably practicable to contribute to ScotRail NRPS targets for:</p> <ul style="list-style-type: none"> • 'Overall satisfaction'; and • 'How well the Franchisee dealt with disruption'. 	Scotland route
Quality of station services		
10	Maintain stations to the average asset condition in place at 31 March 2019, in a manner that facilitates the operator of the ScotRail franchise to fulfil its obligations under the current or any future Service Quality Incentive Regime (SQUIRE).	Scotland route
11	Work with the rail industry to deliver a measurable improvement to the customer experience by the end of CP6 through improved, and more consistent Customer Information Systems (CIS) with no reduction in the customer experience through CP6.	Scotland route
Freight performance		
12	<p>Network Rail must achieve FDM-R for Scotland of 93% at the start of CP6 and improve this so that the CP6 exit position is no worse than 94.5%. This requirement also constitutes our CP6 baseline trajectory for FDM-R³².</p> <p>The FDM-R will also contribute to national (GB) FDM trajectory of 94%.</p> <p>If performance drops below our regulatory minimum floor for Scotland (92.5%) we are highly likely to take regulatory action.</p>	FNPO

³² All three CP6 baseline trajectories for consistent route measures and regulated minimum floors are set out in Annex 2.

No.	Network Rail requirement for CP6	Accountable
Freight journey time		
13	<p>Develop and monitor performance against a freight journey time metric based on average speed (mph).</p> <p>The measure must be:</p> <ul style="list-style-type: none"> developed in cooperation with the freight industry; and consulted with Transport Scotland and stakeholders. 	FNPO
14	<p>Using the freight journey time metric and working with other parts of Network Rail (including the Scotland route and the FNPO route), develop a plan to increase the average speed of freight trains by not less than 10% through good operational practices, including timetabling exercises and programmes, and through collaboration with freight operators and customers.</p> <p>The plan must be:</p> <ul style="list-style-type: none"> developed in cooperation with the freight industry; consulted with Transport Scotland and stakeholders; provided to ORR by 30 November 2018 for review; finalised and provided to all affected parties by 31 March 2019; and updated and amended as appropriate through CP6. <p>Throughout CP6, Network Rail must also oversee the delivery of the actions set out in the plan and report on progress.</p>	System Operator
15	Network Rail to deliver its obligations from the plan during CP6.	System Operator
Freight growth		
16	<p>Work with the freight industry to develop and oversee implementation of a plan including all reasonable steps to facilitate growth of 7.5% in rail freight traffic carried on the Scotland route, of which, at least 7.5% will represent growth in new business (i.e. new traffic flows, not previously moving by rail), by end of CP6 as measured by net tonne miles.</p> <p>The plan must be:</p> <ul style="list-style-type: none"> developed in cooperation with the freight industry; consulted with Transport Scotland and stakeholders; provided to ORR by 30 November 2018 for review; finalised and provided to all affected parties by 31 March 2019; and updated and amended as appropriate through CP6. 	FNPO route
17	Network Rail to deliver its obligations from the plan during CP6.	FNPO route

No.	Network Rail requirement for CP6	Accountable
Asset data quality		
18	<p>Consistently maintain data quality at an A2 standard as a minimum across all asset data categories.</p> <p>This includes Network Rail's new Minimum Asset Data Requirements that have been defined to establish a process for the Exchange of Asset Information to keep asset data up to date during infrastructure projects.</p>	Scotland route
Carbon emissions reduction and climate change		
19	<p>Develop and deliver a metric for continuous carbon emissions reductions which is normalised to cover passenger and freight volumes and set against the baseline at 31 March 2019.</p> <p>This metric must be:</p> <ul style="list-style-type: none"> • developed with regard to Scottish environmental legislation; • consulted with Transport Scotland and stakeholders; • provided to ORR by 30 November 2018 for review ; and • finalised by 31 March 2019. <p>Network Rail must monitor performance against the metric in CP6.</p>	Scotland route
20	<p>Develop a metric for CP6 to drive behaviours to reduce overall traction and non-traction energy use by the end of CP6.</p> <p>This metric must be</p> <ul style="list-style-type: none"> • consulted with Transport Scotland and stakeholders; • provided to ORR by 30 November 2018 for review; and • in place by 31 March 2019. <p>The route must monitor performance against this metric in CP6.</p>	Scotland route
21	<p>Network Rail to work with the rail industry to develop and monitor performance against suitable KPIs for monitoring the impact and mitigation of climate change upon network disruption and the means of measuring the benefits of adaptation interventions.</p> <p>The KPIs must be developed with regard to Scottish environmental legislation.</p>	Scotland route

No.	Network Rail requirement for CP6	Accountable
Network capability and capacity		
22	We expect Network Rail to protect and maintain the baseline capability of the network and for all changes to go through the recognised industry processes throughout CP6. We continue to engage with Network Rail to develop and implement the Independent Reporter recommendations for monitoring and assessing network capability in CP6.	Scotland route
23	<p>Develop and implement a gauging strategy which seeks to deliver the Scottish Gauge Requirement³³.</p> <p>The strategy must be:</p> <ul style="list-style-type: none"> • developed in cooperation with the rail industry; • consulted with Transport Scotland and stakeholders; • provided to ORR by 30 November for review; • in place by 31 March 2019; and • updated and amended as appropriate through CP6. <p>The outputs from delivery of the Scottish Gauge Requirement should be used to inform and maintain accurate and up to date Network Capability statements.</p>	Scotland route
24	In accordance with appropriate governance arrangements, as envisaged by the HLOS, Network Rail must establish a rolling programme to deliver the Scottish Gauge Requirement, commencing no later than 1 April 2019 and be completed by the end of CP6.	Scotland route
Asset management, maintenance and renewal plans		
25	Network Rail's asset management, maintenance and renewal plans must maintain a balance between the specific requirements of the network in Scotland and its broader network stewardship requirements.	Scotland route

³³ The Scottish Gauge Requirement is defined as per the Scotland HLOS:

The Scottish ministers require that the capability of the network will be operated and maintained as a minimum throughout CP6 at a level which will satisfy all of the track access rights of all passenger and freight operators in place at the date of the publication of this HLOS and any rights secured, or in course of being secured, between then and the 31 March 2019. In particular, it must be fully consistent with the service level commitments specified in the ScotRail and Caledonian Sleeper franchises.

Passenger: all Scottish routes are maintained to be capable of accommodating the gauge of all locomotives and passenger rolling stock, including cross border services and charter operator's vehicles, which have run in Scotland in CP4 and CP5 or are known to be planned to run in Scotland in CP6.

Freight: Freight gauge capability should be maintained to at least the capability in the most recently published issue of the Freight Gauge Database Map (published and maintained categories), or the Sectional Appendix, or the full suite of RT3793 forms for Scottish routes, whichever is most capable at the time of publication of this HLOS.

No.	Network Rail requirement for CP6	Accountable
Development of an efficient electrification technical specification		
26	<p>Network Rail must develop an electrification technical specification by 31 March 2019, and implement this in CP6.</p> <p>The specification must:</p> <ul style="list-style-type: none"> • support the Scotland investment strategy; • be compliant with UK law and current rail technical specifications for interoperability; and • be updated and amended as appropriate through CP6. 	Scotland route
Depots and stabling		
27	<p>Network Rail must develop and implement a depot and stabling capability plan for the 15 years from 2019 to 2034.</p> <p>The plan must:</p> <ul style="list-style-type: none"> • be developed in conjunction with Transport Scotland and industry partners; • be sufficient to support predicted passenger service growth and rolling stock strategies set out in Franchise Agreements; • include a date for completion of the plan which needs to be agreed between ORR, Transport Scotland and Network Rail; and • be updated and amended as appropriate through CP6. 	System Operator
Support for the rural economy and tourism		
28	Network Rail must have appropriate processes and procedures in place to support requirements of charter, tourist and other special trains.	FNPO
29	Network Rail must maintain and deliver track access to support the reasonable requirements of charter, tourist and other special train operators, ensuring that all required approvals and pathways are confirmed to operators in sufficient time so as to enable normal business planning and marketing activity to be undertaken with certainty.	FNPO
30	Timetabling with respect to rural services should be informed by specialist local knowledge so as to ensure integration with bus and ferry services.	System Operator
31	Vegetation clearance on rural and scenic routes should be controlled and maintained so as to facilitate views from the train, and to prevent damage to trains.	Scotland route

No.	Network Rail requirement for CP6	Accountable
Railway assets		
32	Network Rail must seek to optimise the availability of redundant or underused assets, including land, for the benefit of the local community, while protecting the network for future use.	Scotland route
33	Network Rail must cooperate with Transport Scotland and the Scottish Government to examine areas where Network Rail's digital assets can support passenger services where digital connectivity is limited or currently missing, or where the assets can support digital coverage for remote and rural communities.	Scotland route
Client sponsor capability		
34	Network Rail must maintain an expert whole-industry project client and sponsor capability to control all stages of investment project development and delivery in cooperation with the Scotland route. It must report on this through the regular qualitative System Operator reporting.	System Operator
Our decisions on timetabling resource		
35	Network Rail must maintain sufficient dedicated resources available to deliver timetabling activity on the Scottish network, which must be familiar with its geographical, market and operating characteristics, using processes and priorities fully aligned with the Scottish strategic priorities.	System Operator
Network sustainability		
36	<p>We have set CSI CP6 baseline trajectory³⁴ for Scotland which reflects our expectations regarding Network Rail route's contribution to sustainability of the network in light of the funding available to Network Rail. We will use these baselines in our monitoring and reporting during CP6.</p> <p>We have set a regulatory minimum floor for this measure. We are highly likely to formally investigate a route for potential breach of the Network Rail network licence if sustainability levels are projected to be below the regulatory minimum floor for CSI.</p> <p>The route must follow the reporting requirements set out in our PR18 final determination supplementary document – Scorecards and requirements³⁵.</p> <p>A new measure of network sustainability is being developed.</p>	Scotland route

³⁴ All three CP6 baseline trajectories for consistent route measures and regulated minimum floors are set out in Annex 2.

³⁵ PR18 final determination supplementary document – Scorecards and requirements, available [here](#).

Annex 2: Scotland consistent route measures

1. The Scotland route set out what it proposed to deliver in CP6. Within this, it included a scorecard containing:
 - measures that reflected the HLOS;
 - measures that were developed with customers/local stakeholders, including train operator performance measures; and
 - a set of ‘consistent measures’ that apply to all of Network Rail’s geographic routes and which will enable comparison across routes during CP6.
2. The scorecard in the Scotland route’s plan included targets that the route set itself against these consistent route measures. It is important that throughout CP6 the Scotland route scorecard supports both the HLOS requirements and comparison across routes using the Network Rail and ORR consistent route measures.
3. Our decisions about asset sustainability and performance are discussed further in our PR18 final determination supplementary document – Scorecards and requirements. As outlined in this document, we have set CP6 baseline trajectories for the following measures only: CSI, CRM-P and FDM-R. These CP6 baseline trajectories will be used as part of our monitoring and reporting.
4. While routes may update their own trajectories as part of their business planning process (and reflect this in their annual scorecards), the CP6 baseline trajectories we have set can only be changed through the ‘managing change’ process. As such we have updated the consistent route measures table below to reflect our decisions. Table A.2 below sets out:
 - CP6 baseline trajectories for CSI, CRM-P and FDM-R, reflecting our final determination decisions (in bold); and
 - the route’s own SBP targets for its consistent route measures³⁶.
5. For each of the measures for which we have set a CP6 baseline trajectory, we have also set a regulatory minimum floor, this is set out in Table A.3 below. The role of regulatory minimum floors in Scotland is set out in our scorecards and requirements supplementary document.

³⁶ The routes will update these trajectories as part of their business planning processes. Other measures that the route included on its full scorecard (including the measures agreed with customers and local stakeholders) are available within the route’s Strategic Business Plan.

Table A.2: Route consistent measures including baseline trajectories³⁷

Area	Metric	CP6				
		2019-20	2020-21	2021-22	2022-23	2023-24
Safety	Lost time injury frequency rate (LTIFR)	0.360	0.320	0.270	0.220	0.170
	Train accident risk reduction measures	80.0%	80.0%	80.0%	80.0%	80.0%
	Top 10 milestones to reduce level crossing risk	8	8	8	8	8
	Railway management maturity model (RM3)	We expect Network Rail to provide targets and benchmarks for the start of CP6				
Train performance	Consistent route measure – passenger performance (CRM-P)	1.06	0.96	0.89	0.89	0.88
	Freight delivery metric – route (FDM-R)	93%	staged improvements			94.5%
Asset management	Composite sustainability index (CSI)	-	-	-	-	2.3%
	Reduction in service affecting failures (SAF)	2.0%	2.0%	2.0%	2.0%	2.0%
	Composite Reliability Index (CRI)	2.00%	4.04%	5.90%	7.80%	9.60%
	7 key volumes	95%	95%	95%	95%	95%
	Top investment milestones	80%	80%	80%	80%	80%
Financial performance	Financial performance measure (FPM) – gross excluding enhancements	£0m	£0m	£0m	£0m	£0m
	Financial performance measure (FPM) – gross enhancements only	£0m	£0m	£0m	£0m	£0m
	Cash compliance – income and expenditure	£0m	£0m	£0m	£0m	£0m

Table A.3: Regulatory minimum floors

Area	Metric	CP6				
		2019-20	2020-21	2021-22	2022-23	2023-24
Train performance	Consistent route measure – passenger performance (CRM-P)	1.25	1.15	1.08	1.08	1.07
	Freight delivery metric – route (FDM-R)	92.5%	92.5%	92.5%	92.5%	92.5%
Asset management	Composite sustainability index (CSI)	-	-	-	-	1.8%

³⁷ Definitions of the measures are available [here](#).

Annex 3: The Scotland route requirement and efficiency assumptions for CP6

Table A.4: The Scotland route revenue requirement (2017-18 prices³⁸)

£m (2017-18 prices)	CP5				CP6			
	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	45	233	49	47	47	47	47	237
Support	40	207	54	55	54	51	52	265
Maintenance	121	600	145	145	141	142	141	714
Renewals	343	1,683	375	508	453	401	313	2,051
Schedule 4 & 8	22	129	14	17	17	14	12	74
Traction electricity, industry costs and rates	66	290	63	65	70	79	80	357
System Operator	2	12	7	8	8	8	8	38
Route-controlled risk funding	n/a	n/a	18	36	58	79	93	283
Contingent asset management funding	n/a	n/a	0	0	0	0	0	0
Route contribution to group portfolio fund	n/a	n/a	0	0	0	0	0	0
RPI/CPI differential adjustment	6	(27)	13	25	32	38	42	150
Gross revenue requirement	644	3,127	738	906	878	859	787	4,168
Other single till income	(29)	(158)	(34)	(35)	(36)	(36)	(37)	(178)
FNPO Recharge	n/a	n/a	(79)	(95)	(91)	(90)	(83)	(438)
Net revenue requirement	615	2,969	625	776	752	732	667	3,553

Table A.5: Summary of our efficiency assumptions for the Scotland route for CP6³⁹

% , exit to exit basis	CP6				
	2019-20	2020-21	2021-22	2022-23	2023-24
Operations	-2.2%	3.8%	5.6%	6.1%	6.7%

³⁸ Uplifted for CPI/RPI differential – see illustration in Table 1.2 in chapter 1 PR18 final determination Supplementary document – Financial framework.

³⁹ A positive number is efficiency, a negative number is inefficiency.

% , exit to exit basis	CP6				
	2019-20	2020-21	2021-22	2022-23	2023-24
Support	-2.4%	-2.6%	-0.1%	0.5%	0.6%
Maintenance	2.1%	5.6%	8.3%	9.4%	11.1%
Renewals	4.0%	8.7%	14.4%	12.4%	14.0%
Total	2.6%	7.1%	11.7%	10.4%	11.6%



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