OFFICE OF RAIL AND ROAD

2018 periodic review final determination

Summary of conclusions for England & Wales

October 2018

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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 England & Wales. We have set out our conclusions in respect of Scotland 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 customers, including how its investment should protect the condition and reliability of the rail network over CP6.
3. Our decisions take the form of separate decisions for England & Wales and for Scotland, reflecting legislative requirements and how Network Rail is funded. These decisions also reflect the new arrangements for enhancements decision-making and funding, whereby the majority of these projects are specified by funders, outside of the periodic review process.
4. 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 England & Wales and Scotland, amounting to over £35bn in the five years to 2024.[1] It is essential that this money delivers improvements to passengers and freight customers and is spent efficiently. Reflecting this, our final determination includes significant changes to how we monitor Network Rail and hold it to account.

[1] In addition, the England & Wales Statement of Funds Available (SoFA) includes funding for enhancements (£9.2bn), will meet costs associated with risk (£2.3bn) and takes account of Schedules 4 & 8 (£1.5bn). The Scotland 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).

5. The remainder of this document sets out our conclusions for England & Wales and for those where the issues are GB-wide. All monetary amounts are in 2017-18 prices, unless otherwise stated[2].

The final determination for England & Wales

6. Our determination for England & Wales 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 governments 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 on 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 decisions to reflect these, and also taken account of new information, notably the disruption that followed the May 2018 timetable change.

8. In undertaking this work, we have not set detailed outputs, unless required by one of the government high-level output specifications (HLOS), nor have we made detailed changes to Network Rail's plans. Rather, we have been guided by four broad principles:

- **reinforcing the relationship between Network Rail and its customers**, the train operators. We want Network Rail to agree scorecards with its customers and for there to be a clear process to change these scorecards over time;
- **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;

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

- **reflecting the reasons why government provided a significant increase in funding for the railway** which was – as set out in our earlier advice[3] – the desire for a sustainable railway where asset condition is maintained over time through increased renewals; 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.

9. This process of Network Rail preparing, and ORR challenging, business plans has benefitted from three particular changes that the company has put in place.

10. First, Network Rail has increased the role of the eight geographic route businesses, and also created a more distinct SO (whose functions centre around maintaining the benefits of having an integrated national network) and the Freight & National Passenger Operator (FNPO) route (responsible for supporting those operators who substantially rely on several geographic routes).

11. This has led to a much clearer set of route business plans covering the next five years than we had before CP5. These plans set out: what the routes plan to deliver (with key deliverables captured in scorecards); the baseline expenditure plans that will support this delivery; the additional funding needed to cover route-level risks; and a series of additional schemes that could be pursued if risks do not crystalise or efficiency improves faster than forecast.

12. Importantly, these plans have benefitted from closer involvement of train operators and other stakeholders. While there are areas that still need to be improved, the quality of these plans is better than in the 2013 periodic review, with a real sense that each route management team feels fully accountable for its plan.

13. Second, these plans have been prepared and justified on the basis of bottom-up analysis of the work that needs to be done in each route. This has also supported a clearer focus on route-level initiatives, to promote improved efficiency over time.

14. Third, Network Rail now has a separate plan for the SO, following its creation as a distinct business unit within the company. This plan includes a significant increase in resources for the SO and 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 funders' decisions on how best to expand the capability of the network. Some of these improvements will take time to deliver for passengers and freight customers. However, it is important to raise the capability of the SO, so that future timetables support reliable services and that changes are

[3] ORR's advice on the development of the England & Wales HLOS and SoFA, February 2017, available here. ORR's advice on maintenance and renewals expenditure (to Transport Scotland), April 2017, available here.

effectively managed. This has been highlighted by the severe disruption caused by the May 2018 timetable change. Consequently, we have found that Network Rail breached its network licence obligation to manage timetable changes, as set out here. We are also carrying out a wider inquiry at the Secretary of State's request into why the system as a whole failed to produce and implement an effective timetable; our interim findings are available here.

15. 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 increase the focus on system operation. Our determination will support the company in this process, albeit with important protections in place that ensure that we can continue to hold Network Rail to account for effective delivery.

Our conclusions

16. Overall, we have found that the route, SO and other supporting plans represent an important step forward. Network Rail responded positively to the challenges we set out in our draft determination. Indeed, the company accepted in full a number of our proposals, such as on safety and that routes should hold a higher proportion of the company's risk funding.

17. In other areas, Network Rail has brought forward alternative proposals, accompanied by significant additional evidence. After considering this additional evidence, this has allowed us to accept many of these proposals. This includes the increased spending on asset sustainability and greater stretch on efficiency, relative to its February plans. There has also been a significant improvement in the justification of the plans for Research & Development (R&D) funding, accompanied by much-improved governance proposals; again, this has allowed us to accept the company's revised plans in this area.

18. However, our final determination also sets out requirements on Network Rail to make further changes. One of these relates to the company's contribution to the delays that passengers experience. Here, we have agreed with evidence put forward by a number of train operators and have set improved performance targets for Network Rail for one route.

19. 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.

20. We set out below a summary of our final decisions, including how we will hold the company to account through CP6 for its delivery.

Supporting improved passenger and freight performance

21. The funding included within PR18 will support what passengers and freight customers receive from the railway, both in terms of reliability and accommodating new services and growth. The GB rail network has supported more than a doubling of passenger journeys over the last 20 years, while franchised passenger revenues have risen by 135% in real terms. Outside of coal, freight volumes have risen by 19%. To keep the network running effectively requires ongoing maintenance and renewal; work that is often made more challenging by the intensity with which the network is used.

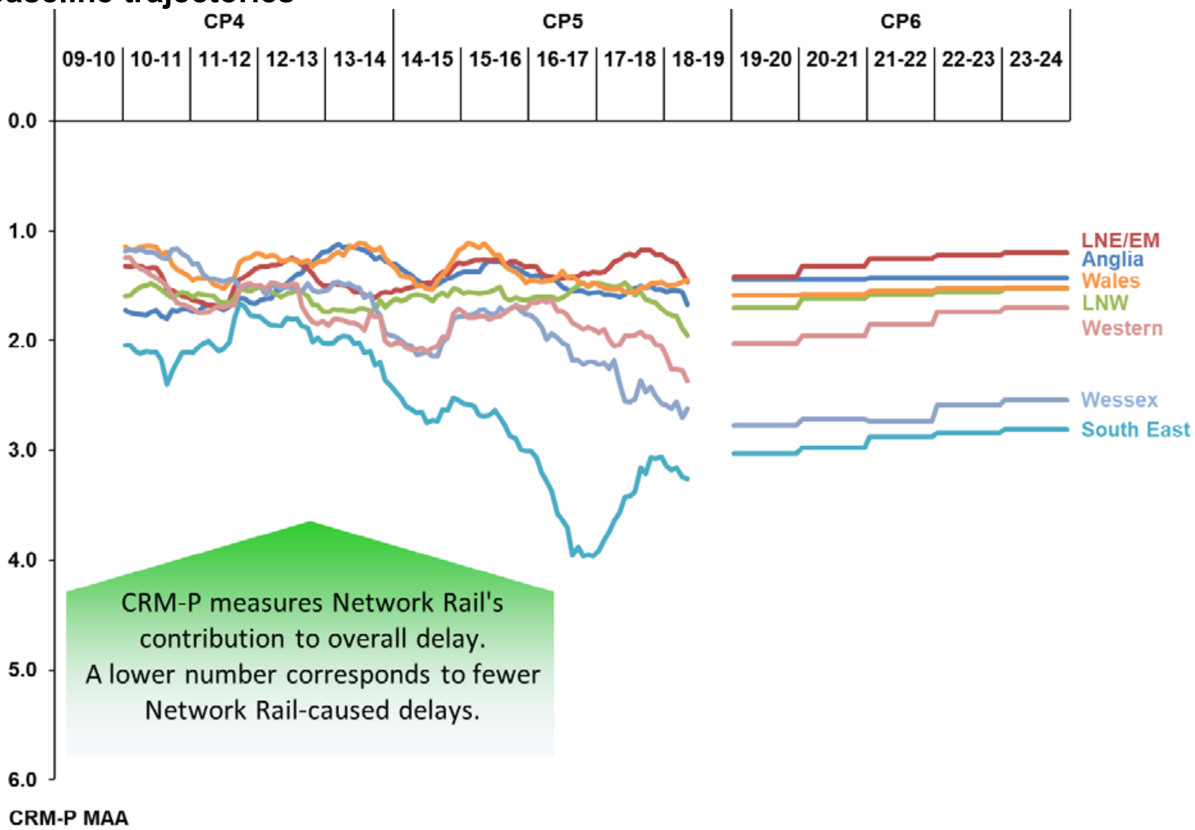
22. This also means that delivering reliable services to passengers and freight customers requires additional effort, as the network becomes busier. This is discussed more below.

Network Rail’s contribution to improved passenger performance

23. We have set out the performance levels that we expect each route to work to deliver, in terms of each route’s contribution to the delays experienced by passengers. This will allow comparison between each route and underpins the financial incentives on both Network Rail and operators (known as the ‘Schedule 8’ performance regime).

24. This new measure of Network Rail’s contribution is referred to as the Consistent Route Measure for Passengers (CRM-P). CRM-P measures Network Rail’s contribution to the delays experienced by passengers. This includes, for example, delays caused by the failure of signalling equipment or the supply of electrical power to trains. The diagram below sets out the routes’ historical performance to support improved delivery to passengers, as restated in terms of CRM-P.

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



25. We have scrutinised Network Rail's proposed trajectories for CRM-P, including by reviewing its underlying models and assumptions. This scrutiny has benefitted from additional evidence provided by operators and the advice of independent reporters (Arup). Our draft determination set out our requirements for several routes to revisit their models and forecasts to address issues we highlighted. The routes responded to this challenge, and have updated their proposals.

26. Following the draft determination, there has been debate around the appropriate level of CRM-P to act as Network Rail's CP6 baseline trajectories and to be used in the Schedule 8 performance incentives. One particular issue is whether and how quickly we might expect the delays attributed to Network Rail to fall over time, and so whether it is realistic to expect performance to improve significantly between this year and the first year of CP6. One perspective is that there are a number of one-off events in recent periods – such as exceptionally cold and then hot weather, and the disruption caused by the May 2018 timetable change – and that these will rapidly reverse out. An alternative perspective is that there is a long-term decline in performance, with these events unlikely to reverse-out fully in coming years.

27. We have considered these arguments, including operator responses, at a route and operator-level. While there are uncertainties, on balance we consider that the CRM-P trajectories proposed in Network Rail's latest submission largely represent a realistic but stretching set of baseline trajectories against which to measure how well the

routes are performing and to hold them to account. These Network Rail trajectories include a significant step-up in performance from current levels.

28. However, two operators provided further evidence on the assumptions made about their performance and how this would affect the delays Network Rail might cause to their operations. We reviewed this evidence, agreed with the operators on a number of points and require Network Rail to amend the CRM-P forecasts to reflect these new assumptions. This affects the baseline trajectory for the LNE&EM route. Our analysis of CRM-P is set out in more detail here.

Scorecards and passenger operator performance

29. We also asked Network Rail and its customers to seek agreement over the way performance is measured on scorecards. Scorecards capture what each route plans to deliver to 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.

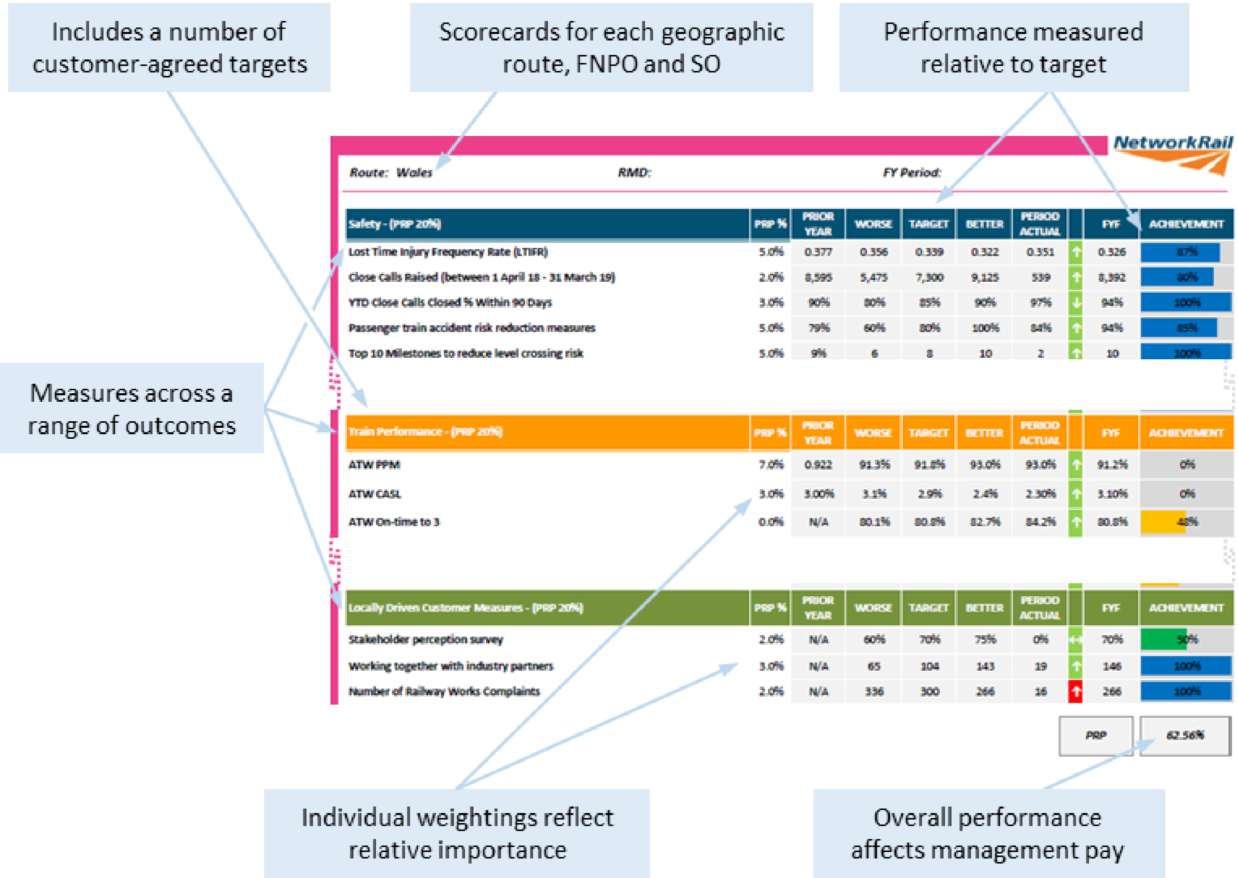
30. Where routes and train operators agree scorecard measures and trajectories, our assessment of Network Rail's performance will consider these agreed trajectories, and use them as important inputs to our monitoring, reporting and enforcement.

31. Overall, while there was good initial high-level discussion on route objectives, this was not repeated as discussions moved on to the detail of individual performance trajectories. This has contributed to the limited number of agreed trajectories between routes and operators. Where there has been agreement, this is reflected in our final determination and we will place particular emphasis on these agreed trajectories when holding Network Rail to account.

32. The majority of passenger operators have not, however, agreed five-year performance trajectories. This means that when assessing the performance of each route, we will look at a wider range of evidence, including considering how the route is performing relative to the CRM-P CP6 baseline trajectory set out in this final determination and relative to other routes.

33. However, it is still possible for operators and routes to agree what they should jointly deliver across CP6 as part of the process of setting the annual scorecards. Indeed, we expect Network Rail to operate a high-quality engagement process with its operator customers to set stretching but realistic annual targets in scorecards through CP6. Where appropriate these should be aligned with performance objectives set by funders, and reflect how circumstances have changed.

Figure 2: The role of scorecards in CP6

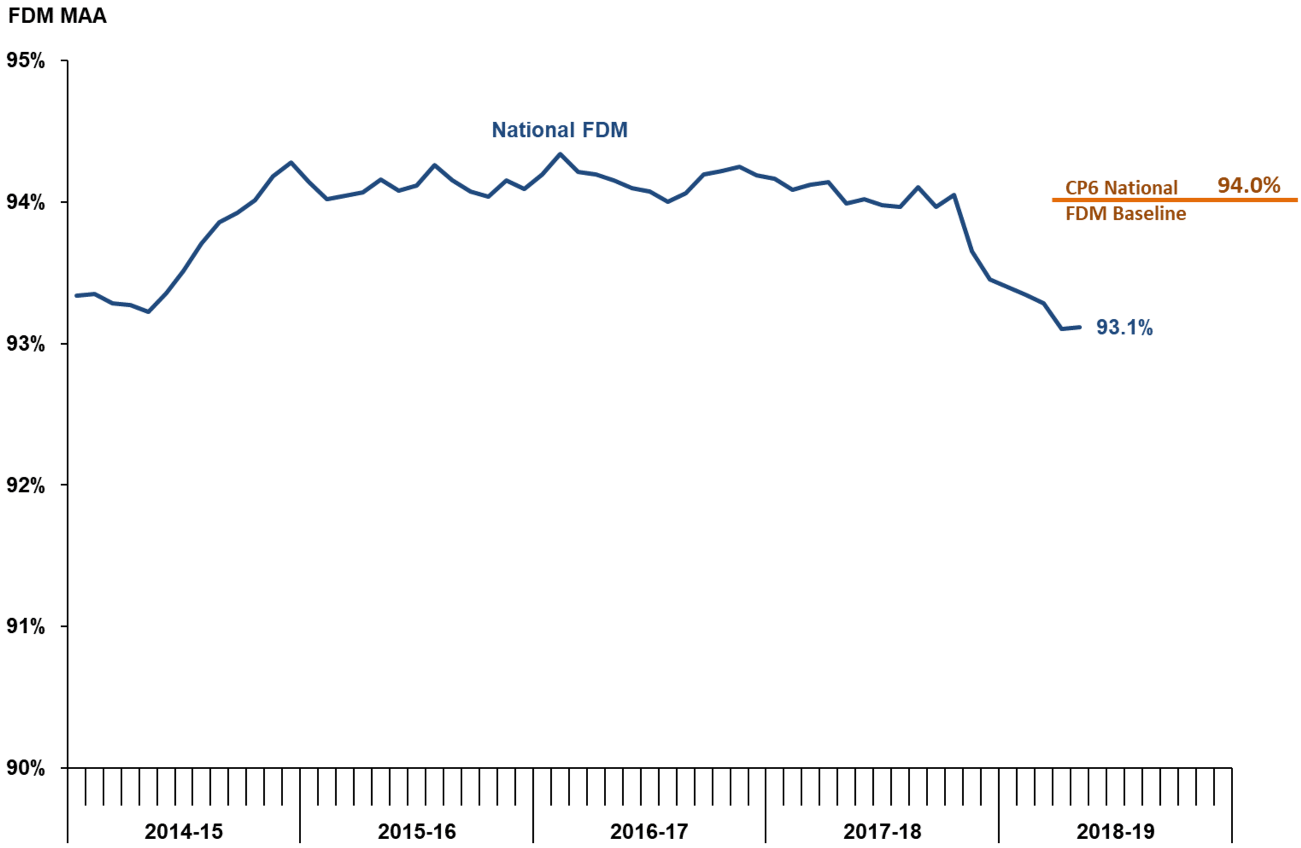


34. Where routes and operators agree alternative measures and associated performance trajectories, we will in particular monitor route performance against these trajectories. This agreement will, therefore, change how we monitor and report on performance, by providing greater clarity on what customers want and what each route has committed to deliver. Where agreement cannot be reached with operators, Network Rail must continue to ensure that each route has a stretching but realistic target in each year of CP6.

Network Rail's contribution to improved freight performance

35. We have also set out our expectations on national freight performance, against which we will measure how well Network Rail is performing and against which we will hold it to account. Reflecting this, we have set out that Network Rail should aim to deliver a freight delivery metric (FDM) of at least 94%. There was a reasonable degree of agreement between Network Rail and operators about this target. In addition, customer scorecards contain a number of additional measures, including on aspects of worker safety and that should improve incentives to increase average speed and encourage new services.

Figure 3: Historical freight performance and CP6 baseline trajectory



36. The national FDM CP6 baseline trajectory above is reflected in a series of route-level trajectories (in the FDM-R measure), which are intended to mitigate the risk that routes focus on passenger performance at the expense of freight.

37. We are also introducing new conditions into Network Rail's licence that will require the company to address the interests of freight customers and end users. While the FNPO provides a particular focus for these interests, our new proposals go further by applying to all parts of Network Rail, including the routes and SO.

Encouraging new ways to improve passenger and freight performance

38. 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 improve passenger and freight performance. These 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.

39. 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, across GB. We will work with Network Rail and other stakeholders over the coming months to agree suitable cross-industry governance arrangements for the fund. This presents an opportunity for industry participants to identify new and

innovative ways of improving performance, which could then be rolled out more widely across the network.

Investing to protect long-term performance

40. Our final determination includes a number of decisions that focus on longer-term improvements in passenger and freight performance. In particular, our challenge to Network Rail's initial plans has led to an increase in its planned renewals spend, which will improve the long-term sustainability of the network assets. These assets are an important factor in delivering a reliable service to passengers and freight customers.

41. In addition, we have approved Network Rail's proposals for a substantial increase in expenditure by the SO, to approximately £270m over CP6. This will support investment in timetabling systems and enable an increase of around 100 in staffing levels, on top of the 700 already working in this area. These extra resources need to be used wisely. 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 improved systems are developed and rolled-out). We are also bringing forward 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.

42. Furthermore, Network Rail has set out a number of specific Research and Development (R&D) proposals, which have the potential to improve the reliability of the assets and the effectiveness of train operations.

Supporting improved safety

43. 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. Network Rail has targeted efforts at priority areas in order to deliver its health and safety strategy: called 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 RM3[4] as a tool for securing excellence.

44. 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. The routes show varying degrees of ambition and maturity. In particular, there needs to be an evolution in routes' understanding of what the legal

[4] 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.

duty of reducing safety risk 'so far as is reasonably practicable' means for their investment decision-making.

45. In response to our challenge, Network Rail has addressed the safety-related issues we identified in respect of asset renewal (notably in respect of earthworks, drainage and metallic structures). It has also included an additional £80m of safety-related expenditure, rather than treating this as discretionary spend. This will increase spending on level crossings in particular and on a number of important driver and worker safety initiatives. The changes made to raise renewal spend will also have important safety benefits.

Spending money effectively

46. Reflecting its public sector status, the funds available to Network Rail are effectively fixed. This means that any increase in planned spend in one area (be it renewals, or R&D) must be met by a reduction in planned spend elsewhere (e.g. through greater efficiency savings, or higher income from property).

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

Scrutiny and challenge of business plans

48. In recent years, Network Rail has performed poorly in terms of efficiency. Renewals efficiency in particular has fallen significantly. We set out the reasons behind this decline last year, highlighting that: Network Rail was poorly prepared to deliver renewals at the start of CP5; its PR13 efficiency improvement plans were not well founded; the company reacted slowly to the problems on efficiency; and there was increased pressure on access to the railway to carry out work. The reclassification of Network Rail into the public sector, with the introduction of fixed borrowing limits, meant that when problems arose this prompted repeated re-planning of work to stay within the new funding constraints.

49. Our review has focused both on whether Network Rail has addressed these underlying issues and whether the costs included in Network Rail's plans are justified and reflect a reasonable estimate of achievable efficiency improvements.

50. Our scrutiny of costs has involved route-level scrutiny of plans (including at least 200 subject-specific meetings with Network Rail since December 2017), analysis of Network Rail's central processes and guidance, and external reviews by technical consultants Nichols and Gleeds.

51. 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.

52. Network Rail has responded positively to our challenge and has included £400m of additional efficiency savings in its plans and reallocated £150m of cost pressures that it included in its efficiency assumption to base costs. These additional efficiency savings include those that arise from further route initiatives and a further level of efficiency stretch (with as-yet unidentified initiatives). This means that over CP6 Network Rail is now committed to delivering efficiencies of £2.6bn over the five-year period; up from £2bn in its February proposals. This corresponds to a 10% efficiency improvement over the five-year period (as set out in the table below).

Table 1: Forecast Network Rail efficiency across CP5 and CP6 (+ = efficiency)

	£m, 2017-18 prices			%		
	CP5 forecast	**CP6 February SBP**	**CP6 final determin-ation**	**CP5 forecast**	**CP6 February SBP**	**CP6 final determin-ation**
Opex	-118	+131	+163	-5%	+5%	+6%
Renewals	-388	+276	+382	-21%	+10%	+13%
Total	**-506**	**+407**	**+545**	**-12%**	**+8%**	**+10%**

The measurement of efficiency compares spending in the last year of CP6 with the last year of CP5 (i.e. exit to exit). The CP5 numbers are calculated in a similar manner.

53. There was some evidence that Network Rail could go further on efficiency, including from analysis undertaken by 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 routes, which maintains their ownership of the plans. This will strengthen our ability to hold the routes to account for delivery of these efficiency improvements.

Improving asset condition

54. We have long highlighted the importance of maintaining a sustainable asset base; something which supports both value-for-money and a punctual railway. In our February 2017 advice to the Department for Transport (DfT), we set out concerns about the deferral of renewal work from both CP4 and CP5 and the detrimental impact it was having on long-term asset condition. The Secretary of State took account of our advice when he confirmed the funding he was providing to Network Rail for CP6.

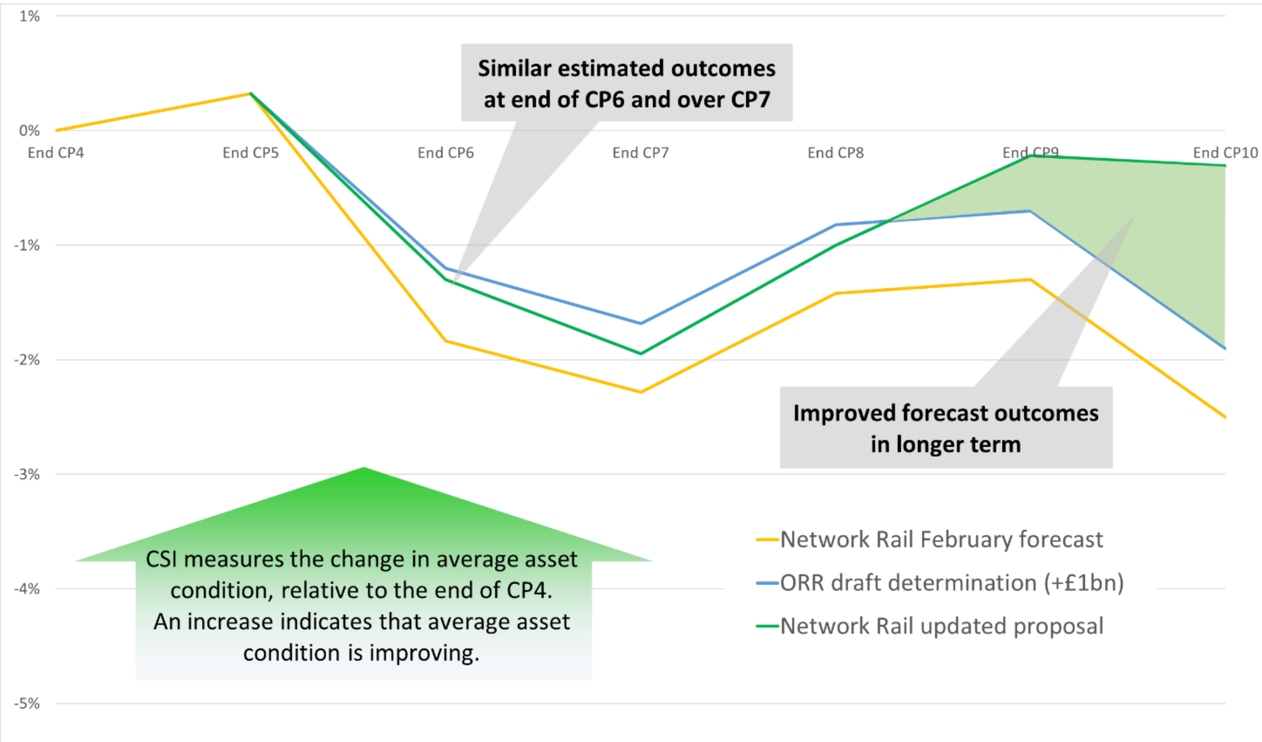
55. Reflecting this, we asked Network Rail to update its plans to increase the expenditure on renewals in its baseline plans, so as to improve safety, asset sustainability, the resilience of the railway and, when completed, have a positive impact on the

performance levels delivered to passenger and freight customers. We highlighted the importance of increasing expenditure on earthworks, drainage, track and structures.

56. In response to our challenge, Network Rail has accepted the need to improve long-term sustainability and has proposed to increase renewals spend relative to its original plan. It has also reviewed its analysis of asset sustainability and identified a number of factors that were omitted from its original submission. After consideration, we agreed that it was appropriate to include these factors in the asset sustainability modelling.

57. This updated modelling increases the long-term forecast of asset condition, as measured by the Composite Sustainability Index (CSI). In response, Network Rail's proposed increase in CP6 renewals spend (relative to its February plans) is lower than set out in our draft determination. Some of this lower renewals spend allows for a higher level of R&D spend, which is expected to improve asset sustainability over the longer-term. Overall, and when adjusting for all of these factors, Network Rail's forecasts are for a slightly lower level of CSI in CP6 when compared to our draft determination position, but a much improved position over the longer-term. This is set out below.

Figure 4: Long-term forecasts for asset sustainability, as measured by CSI



58. On balance, we consider that this delivers a reasonable profile for long-term asset sustainability. In particular, it meets our concerns in respect of safety risks relating to asset condition and, while there is still a forecast reduction in sustainability in CP6, Network Rail's proposal should deliver greater improvements in the longer-term. Consequently, we have accepted Network Rail's updated proposals for renewals

spend in England & Wales of £14.6bn over CP6 (a 17% increase from the £12.5bn in CP5). Our analysis of this new evidence is set out in detail here.

59. This represents a significant increase in renewals spend compared to CP5, and reflects the consistent focus we placed in PR18 on ensuring that the network made progress towards long-term asset sustainability in CP6.

Delivering renewals effectively

60. Asset sustainability and Network Rail's efficiency are linked. With a fixed funding envelope, improvements in efficiency will allow more renewal of the network, supporting asset sustainability. At present, a significant proportion of the increase in renewals spend is meeting the costs associated with current inefficiency. This highlights the importance of Network Rail delivering the efficiency improvements identified above and looking for opportunities to go further. Efficient delivery is also supported by the five-year funding settlement, and the opportunity it provides to Network Rail to deliver without undue re-planning and the inefficiency that resulted from this in CP5.

61. Two areas that require continued focus are the effective profiling of work over CP6 and beyond and readiness for the start of CP6.

62. We raised concerns about the profile of expenditure in Network Rail's plans, and sought changes to deliver a smoother profile of work within CP6, including an orderly transition into the later control periods. A smooth profile of work is likely to be more efficient and better for supply chain management.

63. We remain concerned about Network Rail's plans, which continue to show a significant ramp-up of work in the middle of CP6, with a fall over the longer-term. If risks are managed effectively, the release of the risk funds will allow increased spend in the later years of the control period, which would act to smooth the profile of spend. This is, of course, not guaranteed. Reflecting this, 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.

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

Investment in R&D

65. We strongly support expenditure on R&D and see it as an important way for Network Rail to deliver efficiency, asset management and performance improvements over time. However, Network Rail's initial case for a substantial increase in R&D spend was poorly justified.

66. In response to our challenge, Network Rail has revised its plans, provided significant supporting evidence and updated its proposed governance arrangements. In light of this new evidence – and the decisions taken elsewhere that provide an opportunity within the overall fixed funding envelope – we support a GB-wide fund of £245m for R&D in CP6. This is broadly in line with expenditure levels in CP5. However, this expenditure is subject to finalising suitable governance arrangements, and agreeing these with ORR. In reviewing these arrangements we will, in particular, be looking at how governance supports third-party funding and brings in the interests of passengers, freight customers, funders and train operators.

Encouraging effective delivery

67. This is the first periodic review since Network Rail was reclassified as a public sector body. 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

68. 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.

69. When 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.

70. This means that the plans underlying the final determination are those put forward by the routes and by the SO. It now falls to each of those teams to deliver against their own plans.

71. Related to this, we welcome the updated proposals for routes' railway boards. We now expect these boards to provide an opportunity for collaboration between routes/SO and operators, while also acting as a forum to identify issues and seek

resolution. This has potential to support effective route/SO-customer joint working. Further, where the route/SO out-performs, this raises the prospect that additional improvements can be discussed and agreed, funded by these earlier cost savings.

Adapting plans over time

72. The route and SO plans reflect what route and SO teams currently plan to do to deliver against their commitments to improve outcomes for passengers and freight customers over the next five years. However, circumstances will change, and routes 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 routes make decisions about relative priorities and how best to deliver effectively against their commitments to customers and funders;
- Every year, we expect routes to update their scorecards, including with changes to the performance trajectories that are agreed with operators. This provides a way for these trajectories to remain stretching but realistic and, where agreed, we would use them in our monitoring of Network Rail and when we report on the company's performance. This will also provide a way to reflect changes that take place as new passenger franchise contracts are agreed; and
- Related to this, we expect routes and the SO to produce annually updated delivery plans. This process should involve stakeholders and will be an important opportunity for routes and the SO to apply the lessons learnt from engagement during PR18.

73. However, there may also be circumstances that prompt more significant changes, such as the need to reduce a route's annual spending to meet pressing priorities elsewhere. Within a fixed funding envelope, any such changes need to be undertaken in an orderly and transparent manner. Not least, so that any changes maintain route and SO accountability for delivery.

74. With this in mind, we have confirmed our proposals to introduce new processes to facilitate changes to route and SO budgets and/or accountabilities, but to require transparency and consultation before these changes are made. We are also introducing the potential for ORR to prevent, in exceptional circumstances, certain changes 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

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

76. Network Rail included in its plans across England & Wales a £1.7bn provision for a centrally-held 'group portfolio fund' and a further £0.6bn in the route plans. It is important that Network Rail is able to manage the risks faced by its business efficiently, which in turn allows the company to be held accountable for delivery over CP6.

77. While the overall sizing of the fund looks to be proportionate to the risks faced by the company, we set out proposals to move around half of this central fund into route business plans. This change was supported by Network Rail and a range of other stakeholders.

78. As a result, Network Rail has increased its allocation of risk funds to routes by around £0.9bn. Routes will programme this expenditure into route plans on projects that can be cancelled or delayed relatively easily (and without safety consequences) if risks do materialise. We refer to this as contingent asset management spend in the table below. We also expect routes to identify, in advance of CP6, the asset condition and performance improvements that the expenditure would support if risks do not materialise. These improvements would not be included in the initial scorecard targets. However, they would provide additional evidence to allow performance targets to be raised in the event that the risks facing Network Rail moderate, allowing additional work to be delivered.

79. This change would also allow routes to play a greater role in the management of this fund. Although we would expect Network Rail to retain some central controls over this aspect of route spend (as it covers company-wide risks), this would provide a clearer basis for understanding what the routes could deliver, where risk funds are available to be released.

Table 2: Network Rail risk funds, initial and revised proposals, England & Wales

CP6 total (£m, 2017-18 prices)	February SBP	Revised position
Group Portfolio Fund	1,711	856
Route Funds	600	600
Contingent Asset Management	-	856
Total England & Wales	2,311	2,311

Note: totals may not sum due to rounding.

80. We have set out the key principles for managing risk funding (which will be incorporated into Network Rail's business planning guidelines) and the new arrangements for managing changes to the PR18 settlements. A key aspect of the latter is that any decision taken by the centre to adjust route budgets or risk funds needs to be publicly recorded and will be subject to the new arrangements for managing changes (ORR's Managing Change Policy).

81. Network Rail told us it had omitted the income from the Crossrail supplemental access charge from its February plans. The DfT has stated that this income can be included by Network Rail in plans, but must be included against projects that are easily cancellable. In response, our final determination does not place any firm commitments on the company that rely on this funding. Instead, we will leave it to Network Rail to work closely with DfT so that best use is made of these funds.

Holding Network Rail to account in CP6

82. Now that we have confirmed that we accept the route and SO plans, we need to put in place the arrangements for monitoring the company and for holding the routes and SO to account. This will build on the changes that we are making to our bi-annual Network Rail Monitor document and monitoring teams, to focus more on route comparison.

83. In order to sharpen the incentives on Network Rail to deliver against its plans, we will do the following.

- **Monitor and report on the performance of routes and the SO against the CP6 plans.** This will make greater use of public comparisons across routes (and the SO, where appropriate), including on the performance levels delivered to customers and by 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. A route comparison scorecard will inform these comparisons.
- **Improve the monitoring of whether efficiency improvements are likely to be delivered**, by identifying a set of leading indicators such as the proportion of required possessions that are booked, which provides an indication of whether the planning of work is sufficiently well advanced.
- **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 routes, SO and other business units to account for their actions, including through the potential for ORR hearings between routes/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 shortly.

84. 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 ORR's Managing Change Policy.

85. In addition, we have proposed a new obligation on Network Rail, through its network licence, to:

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

86. 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

87. 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.

88. 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.

89. 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.

90. 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 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 & 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 and next steps

91. Network Rail's February 2018 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 England & Wales expenditure figures.

Table 3: England & Wales revenue requirement, CP5 vs CP6

£m (2017-18 prices)	CP5		CP6					
	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	549	2,607	639	638	639	637	634	3,186
Support	380	1,768	473	478	467	445	450	2,314
Maintenance	1,220	6,040	1,409	1,433	1,390	1,376	1,368	6,977
Renewals	2,092	12,535	2,675	3,147	3,232	3,020	2,508	14,581
Schedules 4 & 8	317	1,732	341	286	305	286	252	1,471
Traction electricity, industry costs and rates	574	2,505	681	724	790	879	892	3,966
Route-controlled risk funding	n/a	n/a	64	94	130	153	160	600
Contingent asset management funding	n/a	n/a	91	133	185	218	228	856
Route contribution to group portfolio fund*	n/a	n/a	77	127	158	201	293	856
RPI/CPI differential adjustment**	44	(248)	110	185	257	320	361	1,234
Gross revenue requirement	**5,178**	**26,940**	**6,561**	**7,245**	**7,552**	**7,534**	**7,147**	**36,040**
Other single till income	(631)	(3,061)	(510)	(522)	(511)	(518)	(527)	(2,589)
Net revenue requirement	**4,547**	**23,879**	**6,050**	**6,723**	**7,041**	**7,016**	**6,621**	**33,451**

* 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.

92. However, reflecting that each route and the SO will have its own settlement, the CP6 totals for each geographic route are set out below (although our settlement is expressed by route, by year). In addition, across GB, the SO's settlement includes CP6 expenditure by the SO of £270m, within an overall settlement of £344m (the latter of which also covers the SO's contribution to other Network Rail costs). The equivalent figures for the FNPO are expenditure by the route of £28m, within an overall settlement of £240m.

Table 4: England & Wales geographic route expenditure, total CP6

CP6 total, £m (2017-18 prices)				
Anglia	1,185	1,588	1,054	**3,826**
LNEEM	2,624	3,322	1,985	**7,931**
LNW	3,411	3,203	2,109	**8,724**
Southeast	2,018	2,346	1,689	**6,052**
Wales	678	957	349	**1,984**
Wessex	1,030	1,455	964	**3,449**
Western	1,286	1,627	933	**3,846**

Note: Other includes traction electricity, industry costs and rates, Schedules 4 & 8 and risk.

93. In addition, outside of the periodic review process, Network Rail is forecast to receive around £4.8bn (in cash prices) to cover the costs that it faces to support delivery of HS2, and has a further £10.4bn (in cash prices) initially allocated through the SoFA to support the delivery of enhancements.

94. The changes that Network Rail has made to its plans (as amended by this final determination) address the requirements set out by the Secretary of State in his HLOS, and reflect the priorities identified by ORR for PR18. In particular, they better secure the safe operation of the railway, make greater progress to improve asset condition by reversing the historical deferrals in renewing the network and, in so doing, improve the performance levels delivered to passengers and freight customers.

95. Overall, and taking account of the above adjustments, we consider that the Secretary of State's HLOS is affordable. More detail on this assessment is available here.

Next steps

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

97. 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.

98. 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:** In November 2018 we will publish a consultation on the key aspects of our proposed policy for monitoring and economic enforcement[5]. 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 how we secure 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.

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

- **Performance innovation fund:** We will work with Network Rail and the wider industry over the coming months to design the performance innovation fund. This will include matters such as: setting out more detailed criteria for what type of projects can be funded; establishing how it will be governed; and setting expectations for how knowledge gained through projects funded by the fund 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 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.

99. 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.

100. 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.

101. The key forthcoming milestones for PR18, up to the commencement of CP6, are included in the PR18 timetable.