OFFICE OF RAIL AND ROAD

2018 periodic review final determination

System Operator final settlement document

October 2018

Summary

1. The System Operator (SO) is a business unit within Network Rail that is responsible for strategic planning, managing changes to what the network delivers, managing Network Rail's Sale of Access Rights framework, and producing the timetable.

2. For control period 6 (CP6), the SO has its own settlement as part of Network Rail's determination. The SO will report separately on what it is delivering for its customers (in the form of scorecards and through other reporting tools) and will have its own budget to fund these activities. This should support the rail industry's desire for an expert, transparent and impartial SO that acts in the best interests of the system as a whole, favouring neither operators nor Network Rail in its decision-making.

3. To support this, we are also proposing some changes to Network Rail's network licence to embed the SO into Network Rail's organisational structure. The statutory consultation for this will take place in December 2018.

4. Our review of the SO's CP6 strategic plan, and the way we will regulate it over CP6, reflects wider rail industry developments that affect the SO. In particular, the SO's role is changing as part of Network Rail's devolution of responsibilities to the routes in England and Wales, and in response to wider political devolution of funding and franchising decisions (in addition to the existing devolved arrangements that exist in Scotland). Increasingly, the SO needs to manage a network that is busier and more complex, and it needs to integrate new enhancements projects and accommodate new and different services in a timely and efficient way.

5. Our review of the SO's plan has also taken place in the context of significant disruption to passengers resulting from the late finalisation of the May 2018 timetable. In July 2018, we concluded that Network Rail breached its licence by failing to deliver, to the greatest extent reasonably practicable, its obligations to run an efficient and effective process for establishing a timetable. In our decision letter, we set out four immediate actions for Network Rail (primarily for the SO) to deliver.

6. Separately, our broader inquiry into the factors that contributed to the failure to produce and implement a satisfactory timetable in May 2018 identified a number of areas where Network Rail (including the SO) did not take actions it should have done to manage the risks associated with the delivery of a large timetable change.

7. Network Rail has put in place measures for the December 2018 and May 2019 timetables to address some of these issues raised by our investigation. Phase 2 of our inquiry will make further recommendations on additional actions by the SO in order to address the problems experienced with the May 2018 timetable. Andrew Haines (Network Rail's new chief executive) has also announced he is

undertaking a review looking at how Network Rail works together and can improve its service to customers (the ‘100 Day Plan programme’). This is expected to be completed in January 2019.

8. Over CP6 the SO’s plan may need to change to reflect developments within Network Rail and industry, or to address the findings of our inquiry. Some of these changes may fall under our Managing Change process.

Summary of our decisions on the SO’s expenditure for CP6

9. In its strategic plan, the SO set out plans for direct expenditure[1] of £272m, compared with around £145m in control period 5 (CP5)[2]. For this increased budget, the SO proposes to deliver:

- a more iterative and ‘modular’ form of strategic planning, better aligned to key franchising and rolling stock decisions and informed by more effective stakeholder engagement;
- an improved provision of advice to a wider number of funders relating to future projects and franchising decisions;
- a more accurate and resilient timetable that is provided to industry in a more effective manner; and
- a more automated timetabling process and a move towards ‘per second’ timetabling (rather than the current practice of planning the timetable in 30 second increments) through investment in its technological capabilities.

10. In our June 2018 draft settlement for the SO, we set out our proposals regarding what the SO should be funded for and, in turn, what it should be required to deliver, based on our assessment of the strategic plan. Stakeholders were broadly supportive of our proposed settlement for the SO, including the increase in funding (indeed, some stakeholders felt that the increases did not go far enough). A fuller discussion of all stakeholder views and our response is set out in our summary of stakeholder responses document.

11. Having considered stakeholder views and based on our previous assessment, we consider that the SO’s proposed direct expenditure of £272m in CP6 is justified.

Summary of our requirements of the SO

12. Our requirements on the SO focus on ensuring that the SO is sufficiently transparent to demonstrate that it is delivering the improvements set out above, and allow

[1] Not including the SO’s share of other central costs which are allocated through the financial framework

[2] In 2017/18 prices. This figure includes £29m of capital expenditure and £116m of operational expenditure.

stakeholders and ourselves to effectively monitor the SO's delivery. Here we summarise the key elements of our requirements – please see the latter parts of this document for more detail on our requirements.

13. As part of our final determination therefore, we require[3] the SO to deliver the following commitments that it has made in its CP6 plan:

- **report on its performance through the (national) tier 1 scorecard, as well as the tier 2 (directorate level) and tier 3 (geographically disaggregated) SO scorecard structure**. The SO should also set out what each measure means (e.g. what data it is based on) so that its stakeholders can interpret what the scorecards are saying about the SO's performance;
- **produce and publish an annual narrative report** to explain those elements of its performance that do not lend themselves to scorecard reporting, and to reflect on the quality of its service and areas for improvement. To ensure the report is sufficiently comprehensive, we require the SO agree the content of its annual report with its Advisory Board[4]; and
- **embed the external governance framework[5] as set out in its strategic plan and in line with its May 2018 supplementary letter** to enable stakeholders to influence the SO's priorities and, where necessary, to challenge its performance. There **should be a means for the Advisory Board chair and the ORR to have direct and regular dialogue** to enable ORR to use the new governance framework in the way we monitor the SO over CP6.

14. Our requirements also focus on ensuring that the SO meet the governments' high level output specifications (HLOSs) and that it effectively learn the lessons from the issues arising from the introduction of the May 2018 working timetable. In addition, we are also requiring that the SO:

- **is accountable for developing an industry plan (by 30 November 2018 for ORR review, and finalised by 31 March 2019) to deliver the passenger and freight journey time requirements set out in the Scottish Minister's**

[3] These requirements could be subject to change during CP6. Our change control procedures would enable the SO to develop and implement improvements to this reporting framework, subject to certain controls (including appropriate engagement with stakeholders).

[4] A group of external stakeholder representatives, who provide scrutiny of the SO's performance – this body is explained in more detail on page 12 of the SO's 'About us' document

[5] Including the Advisory Board and the two Standing Advisory Groups, which we explain in more detail in the following section of this document

HLOS[6]**,** working with other parts of Network Rail (including the Scotland route and the FNPO route) and with industry and government stakeholders;

- **is accountable for overseeing the delivery of the actions set out in the industry plan to improve journey times in Scotland** according to the timescales stated in the plan (subject to any amendments we might make following our review)**, and for reporting on progress** (including through the use of scorecards across SO and the Scotland and FNPO Routes). Other parts of Network Rail will also be responsible for delivering elements of the plan, and the SO will lead Network Rail's delivery of its actions;
- **must implement the actions it has identified to address the recommendations from the Nichols' review**[7] **of the SO's capital expenditure controls and processes** to ensure that it can deliver its proposed investment of around £60m in its systems; and
- demonstrate that it has **taken account of lessons learnt from the May 2018 timetable change**, including recommendations from our inquiry into why the system as a whole failed to produce and implement an effective timetable. With the SO, we will consider how best it can report on its work to improve the timetabling process during CP6.

15. The rest of this document is structured as follows:

- background and the regulatory settlement for the SO in CP6;
- our conclusions on the SO's funding in CP6; and
- our requirements of the SO for CP6.

6 Those requirements are to deliver a Scotrail minutes per mile target of 1.587 by December 2019 and 1.576 by December 2024 and a freight speed increase of 10%, by December 2024.

[7] To provide assurances that the SO is well equipped to deliver its capital expenditure programme in CP6, we jointly commissioned (with Network Rail) an independent reporter study, undertaken by Nichols, to consider whether the SO's processes and controls for capital expenditure are suitably robust

Background

The SO business unit

16. The SO is a relatively small business unit within Network Rail, with around 700 staff currently. Its managing director reports directly to the Network Rail CEO and is a member of its executive committee. The SO's describes its activities across four key areas:

- **strategic planning:** The SO leads the industry's long term planning process, analysing the future needs of the network and working with industry to advise funders on the options for how the network should develop over the longer-term (the next 30 years;
- **managing output changes to what the network delivers:** The SO manages the early development of enhancements, undertakes the economic analysis underpinning projects' business cases and manages the overall enhancement projects portfolio and the pipeline process. The SO also advises franchising authorities about the services the network can accommodate, works with High Speed 2 (HS2) to ensure the future service is integrated into the rest of the network and manages Event Steering Groups (which bring industry together to prepare for major timetable changes);
- **managing the access rights framework:** The SO defines Network Rail's Sale of Access Rights (SoAR) framework for granting access rights to the network, and provides the capacity analysis that informs Network Rail's (and ORR's, where necessary) access decisions; and
- **producing the timetable:** This is the key, final product of the SO. The SO translates the access rights that operators hold, and the train paths that they bid for, into the timetable according to the processes set out in the Network Code. The timetabling process includes production of the Timetable Planning Rules (TPRs), publication of the six-monthly working timetable and amendment to the timetable up to 24 hours in advance of operation.

17. The SO contributes to system safety across these four activities. For instance, it has a key role in ensuring that enhancements are designed safely from the earliest stages, and conducts safety critical analysis of the flow of pedestrians through stations. In planning the timetable, it ensures that trains are safely routed on the network and sets frameworks that ensure there is enough engineering access for works to be completed safely.

18. In CP5, the SO[8] has spent approximately £145m, including £116m of operational expenditure and approximately £29m of capital expenditure. The SO's plan for CP6 represents a marked increase on this, to £211m of operational expenditure and around £60m of capital expenditure. This has been in response to a changing wider context for the SO, as shown in Figure 1.

Figure 1: The changing context for the SO

The May 2018 timetable issues

19. Our review of the SO's plan has also taken place in the context of ongoing problems caused by the late finalisation of the May 2018 timetable, which the SO is responsible for producing. This has caused substantial disruption to passengers through cancelled and delayed services.

20. In July 2018, we concluded that Network Rail breached its licence by failing to deliver, to the greatest extent reasonably practicable, its obligations to run an efficient and effective process for establishing a timetable. In our decision letter, we set out four requirements on Network Rail (primarily for the SO), including a requirement to accelerate its plans to strengthen its timetabling capabilities and resources.

[8] This includes the business units that merged to form the SO, most notably 'Capacity Planning' and what used to be known as 'Group Strategy'.

21. Separately, we are also undertaking a broader inquiry into the factors that contributed to the failure to produce and implement a satisfactory working timetable in May 2018. This inquiry has now produced an interim report, setting out our findings into the causes of the disruption. The inquiry found a number of parties failed to identify and manage systemic risks to the timetable production process. Box 1 below sets out a summary of our September 2018 findings on the issues associated with the SO's role.

Box 1: Disruption to passengers arising from the introduction of the May 2018 working timetable

From 20 May 2018, rail passengers in two parts of the country suffered major disruption to the running of their train services. People suffered inconvenience and financial and emotional cost over a period of several weeks. The industry had sought to introduce the largest ever revision to the national timetable, involving changes to 46% of train times, but for Northern Rail services (around the North West of England) and for Govia Thameslink services (for some routes into London), things went badly wrong.

Our inquiry found that, in planning the May timetable revision, over-optimism led the industry to neglect the risk that repeated slippage past known deadlines would leave the operators with far too little time to uncover and address problems in implementing the new timetable. For the May timetable changes, there were well-intentioned but counterproductive late adjustments to 'de-risk' the situation.

Our inquiry also found that the SO had sufficient information to understand the risks and the potential for disruption arising from the infrastructure programmes, and that it was in a unique position within industry to understand these dependent risks to the timetable process for which it was responsible. However, there is limited evidence that it considered or pro-actively advocated alternative options. This significantly increased the risk that it would not be able to meet the industry schedule for producing a timetable in time for May 2018.

The inquiry has also found that the SO did not have in place sufficiently coordinated processes, cooperation and system-wide oversight to manage the effective delivery of the scale of change required for May 2018. While the inquiry has found that the SO could not have reasonably deployed more resources at short notice in order to mitigate problems as they emerged, the SO could have done more to estimate the resource demands at a much earlier stage and consider other mitigations, as is now being done in anticipation of future timetable changes. The SO's timetabling team were placed under extreme pressure in early 2018, and the teams involved made extraordinary efforts to complete the work then required, without any reasonable options to reduce or mitigate the scale of the task at that late stage.

22. Network Rail has already put in place measures to address some of the issues that we identified in our licence breach investigation. In addition, phase 2 of our inquiry is considering recommendations that may identify further actions required by the SO in order to address the problems experienced with the May 2018 timetable. This will report in December 2018. Furthermore, Network Rail is reviewing how Network Rail can better work to together and improve its service to customers through its ‘100 Day Plan programme’. This is expected to be completed in January 2019.

23. The CP6 plan already set out how the SO would improve the capacity and capability of its timetable resources including recruiting more staff and investing in technology. As required by our licence investigation, the SO is accelerating some of these plans in the final year of CP5, such as bringing forward the recruitment of additional timetable planners. While the SO does not expect this to impact on its plans in a material way, wider developments (including the findings from our inquiry and of the ‘100 Day Plan programme’) may require some changes to the SO’s plan. Some of these changes may fall under our Managing Change Policy. There may also be implications for how we reflect the SO’s role in Network Rail’s Network Licence, which we will consult on in December 2018.

Our approach to monitoring the SO in CP6

24. This periodic review (PR18) includes a much sharper focus on the SO. In CP6, the SO will report separately on what it is delivering for its customers (both in the form of SO scorecards and through other reporting tools) and will have its own budget to fund these activities.

25. In addition, we are proposing changes to Network Rail’s network licence to embed the SO. We are restructuring Network Rail’s existing licence obligations to reflect the separation of functions within its business. This is intended to better reflect the SO’s responsibilities relating to the long term planning process, capacity allocation and timetabling.

26. For CP6, we will monitor the SO’s delivery to its customers against the commitments it has made to them in its plan, and the requirements set out in this settlement. To do this, we will use the SO’s own set of scorecards and its annual narrative report (which explains those elements of its performance that do not lend themselves to scorecard reporting). The narrative report could include reporting on progress to improve the efficiency and effectiveness of the timetable process, the strengthening of its timetabling resources, and the implementation of any recommendations coming from phase 2 of the inquiry.

27. In line with our approach to monitoring and reporting on the routes’ performance, we will take account of the quality of the SO’s stakeholder engagement. To help us do

that, we will make use of the SO's Advisory Board (see below) in understanding how well the SO is engaging with its stakeholders.

28. We will discuss our wider policy for to monitoring and reporting Network Rail's performance – including our overall objectives and ORR's role – in our forthcoming consultation, with a view to finalising this in advance of the start of CP6[9].

The SO's proposed external governance arrangements

29. The SO has proposed a new external governance framework, which should enable stakeholders to have greater influence over its priorities, and hold it to account for its performance. The governance structure contains the following elements:

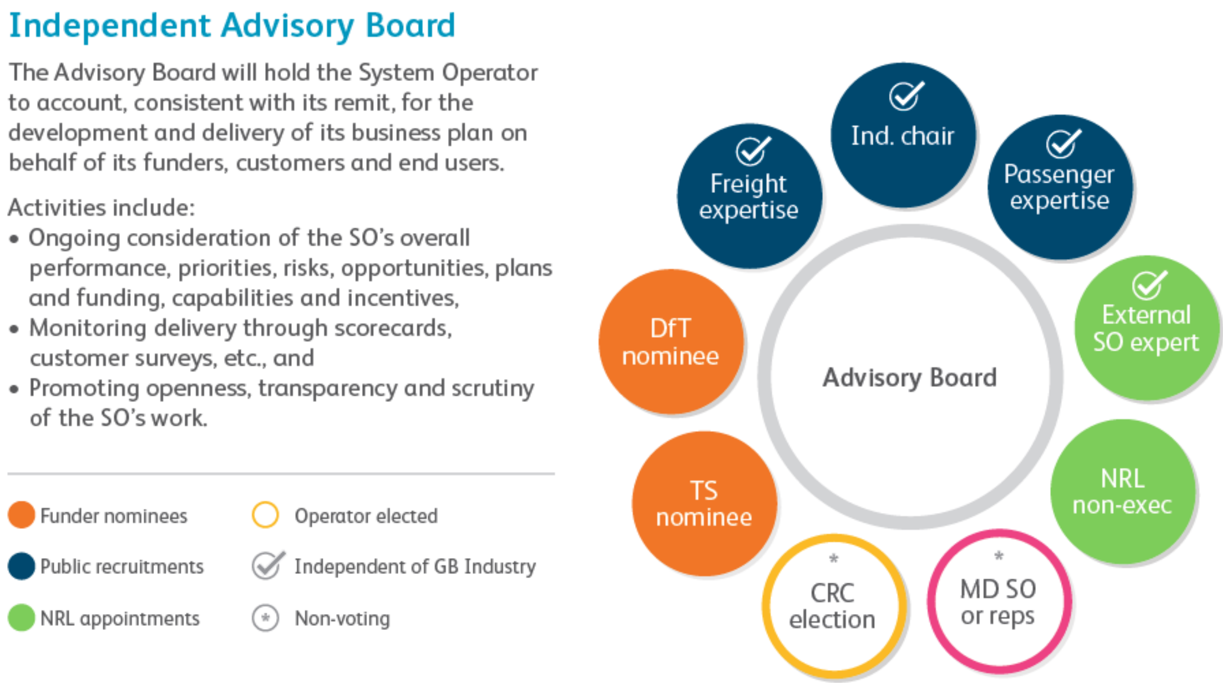
- **a new SO Advisory Board** to hold the SO to account by reviewing and challenging its performance. The SO's Advisory Board will provide independent and expert scrutiny and challenge of the SO's work and processes, as well as providing assurance to its customers. The Advisory Board will also play a role in endorsing the SO's annual business plan and annual narrative report.

  To enhance its independence from the Network Rail executive, the Advisory Board will be able to provide comments directly to the Network Rail Board. The Advisory Board will meet quarterly. The SO will publish the papers and the minutes of the meetings on its website so that stakeholders (and ORR) have full visibility of discussions. Figure 2 below sets out the membership of the SO's Advisory Board; and

- **two standing advisory groups consisting of operators and infrastructure managers** to support the Advisory Board and to improve the representation of the SO's customers. These allow the SO to directly engage with all its customers in a single forum, and also give the SO's customers a direct route to provide comment and feedback on the SO's delivery to them. These groups also have the authority to request any information from the SO and to provide scrutiny of its business plan. These groups are expected to meet three or four times a year.

[9] 'ORR's monitoring and economic enforcement policy and penalties statement for Network Rail', November 2018. This will be available here.

Figure 2: The SO's definition of its new Advisory Board



Our conclusions on the SO's funding in CP6

30. This section sets out our final position on the SO's funding for CP6, which reflects stakeholders' views on our draft determination proposals.

31. As part of this settlement, the SO will have its own revenue requirement to fund its activities, as well as its own regulatory asset base (RAB) to reflect the value of its investment. We have set this at an opening value of £80m[10] based on the SO's past levels of investment, and consistent with our wider methodology for calculating a route's RAB.

32. In order to determine whether the SO's proposed expenditure is efficient or not, we undertook an assessment of the costs included within the SO's plan, focussing on those areas where the SO proposed an increase relative to CP5.

Our assessment of the SO's operational expenditure

33. In its plan, the SO proposes an increase in operational expenditure from c.£116m in CP5, to £211m in CP6.

34. Because of wider changes in the network and the associated changes for the SO, it requires more resources to deliver the levels of service that customers expect to receive currently. Our analysis of the SO's plan suggests that around £35m of additional expenditure is necessary to maintain the level of service it currently provides, but in a more complex environment. A key driver of this complexity includes the increasing utilisation of the network.

35. Furthermore, £32m of the increase represents a transfer of some previously capitalised costs into the SO's operational expenditure. This includes activities that support enhancements, which were previously funded from capital budgets in CP5. Most substantially, this includes the cost of engineering design work to support strategic planning studies and the integration of major enhancements (e.g. Crossrail, HS2) into the timetable. These are costs that would have existed elsewhere in any case.

36. Beyond this, the remaining c.£30m additional expenditure is expected to yield the following benefits:

- further reinforcement of the SO's timetable planning team so that it is able to manage unexpected events better and look further ahead when planning timetables (at an additional cost of £4m);

[10] This is discussed further in the *PR18 final determination supplementary document – Financial framework,* available here

- improved quality of advice that it provides in relation to managing changes to what the network delivers. This includes reinforcing its analytical capabilities (£12m additional) and increasing its role in supporting franchise authorities (£2m). There are also some costs associated with the SO's role in integrating HS2 (£2m) and in delivering the Scottish HLOS requirement of a 'whole system client' (£2m);
- cost increase (£2m) to reduce its current vacancy gap from 2.2% to 1.2% during CP6. A larger organisation requires additional training and IT costs (£3m); and
- the strengthened external governance structure (additional £1m). The SO also proposes to strengthen its internal project management capabilities to deliver its capital investment projects (£2m).

37. In its plan, the SO said it could realise efficiencies of 5% of its operational costs, mainly through continuous improvement. This is substantially more ambitious than other central functions within Network Rail. The SO has argued that this target is achievable because it is only recently beginning to implement focussed continuous improvement, unlike some other central functions. We therefore consider that 5% efficiency is a realistic target.

Our assessment of the SO's capital expenditure

38. The SO's strategic plan also includes substantial capital investment in its own capabilities (around £60m in total), including £55m of investment for the following schemes intended to improve the SO's capacity planning capabilities:

- **Data improvement (£8m)** – this is intended to refine the information necessary for the Train Planning System to calculate timetables to a much finer degree of accuracy;
- **Train Planning System (£16m)** – this is focused on unlocking the currently unused capabilities of the SO's Train Planning System to enable conflict detection and calculation of running times based on the infrastructure (and train) capability model. This programme also requires input and support from the wider rail industry (which the SO will need to work effectively with to deliver), and has dependencies with the data improvement programme discussed above;
- **Better access planning (£12.5m)** – this is intended to deliver a replacement for the Possession Planning System that integrates with the Train Planning System. This would automate the process (which is currently resource-intensive) and ensure that trains cannot be planned which conflict with possessions; and

- **Whole system modelling (£19m)** – this is expected to enhance the SO's ability to model capacity and performance more swiftly and across the whole network.

39. We expect that this investment should enable Network Rail to deliver substantial improvements in its capacity planning capabilities. However, the scope of this investment may need to be reviewed in light of the recommendations from phase 2 of the inquiry and the '100 Day Plan programme'.

Capital expenditure processes and controls

40. There is considerable uncertainty associated with the SO's capital spend, as its portfolio of projects is at a very early stage of development and their outputs and costs are not yet confirmed. Furthermore, Network Rail does not have a good record of delivering large scale technology and change programmes in timetabling (most notably, we found against it in 2010 as a result of its flawed introduction of the Integrated Train Planning System[11]).

41. To provide assurances that the SO is well equipped to deliver its capital expenditure programme in CP6, we jointly commissioned (with Network Rail) an independent reporter study, undertaken by Nichols, to consider whether the SO's processes and controls for capital expenditure are suitably robust.

42. Nichols' review found that there is already a good foundation of processes and controls for the effective management of the SO capital expenditure programmes for CP6. However, it recommended that some improvements should be made in readiness for the commencement of CP6, including:
    - clarify and strengthen the level of relevant industry representation in the development and delivery of the CP6 SO capital expenditure programmes;
    - build on the good foundations already in place to further clarify and strengthen its processes and controls for capital expenditure programmes; and
    - improve its resource management across the capital expenditure portfolio, including in relation to relevant financial contingency.

43. The SO has now submitted an action plan to us demonstrating how it will meet all of these recommendations. We will monitor the SO's progress against this plan to assure ourselves that the SO has the capability to deliver its portfolio effectively, which should lead to a demonstrable improvement in capacity planning.

[11] More information on this enforcement case is available on our website, see here.

Stakeholder views on the SO's budget for CP6

44. In our draft settlement for the System Operator, we supported the SO's proposed direct expenditure of £272m in CP6.

45. In general, stakeholder responses were broadly supportive of our proposal to endorse the SO's direct expenditure of £272m, acknowledging that the SO will need the proposed resources if it is to meet the expectations of its customers.

46. However, Transport Scotland expressed concern about the level of increase in SO costs (as well as other central functions' costs) compared with CP5 figures, and said it would welcome revision in certain areas. Since the draft determination, we have had a number of discussions with Transport Scotland on the SO's costs, including on CEPA's independent analysis that considered Network Rail's approach to allocating central costs to routes[12]. Based on this, we consider the proportion of SO costs to be allocated to the Scotland route to be appropriate. However, we also expect that the SO's scorecard reporting and annual narrative report will discuss the quality of its delivery in Scotland.

47. Some stakeholders argued that, in light of the issues with the May 2018 timetable introduction, the SO should receive even more funding than it proposed in its strategic plan for further investment in the SO's timetabling systems.

48. The PR18 determination provides an individual settlement for the SO. However we recognise that circumstances can change and that it is important Network Rail and the SO are able to respond to events. Our Managing Change policy sets out the process that Network Rail must follow if making changes to the SO budget (for example to provide additional funding to improve timetabling).

Conclusions on expenditure

49. Having reviewed the SO's plans and considered stakeholder comments, we are reaffirming our prior conclusion that the efficient direct cost for the SO is £272m (comprising £211m operational expenditure and around £60m capital expenditure).

50. In calculating the SO's revenue requirement below, we have also included the central costs (including renewals and industry costs) that have been allocated to the SO through the financial framework in a consistent manner with the routes. This leads to a total revenue requirement of £344m, which is subsequently allocated to the route

[12] This report is available here.

businesses[13]. Table 1 below set out our assumptions on the route's funding for CP6 and Table 2 sets out our assumptions for the SO's efficiency in CP6.

[13] Note that, for this reason, many of the lines on Table 1 appear as zeros.

Table 1: Summary of our CP6 expenditure and income assumptions for the SO

£m (2017-18 prices)	CP5		CP6					
	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	0	0	0	0	0	0	0	1
Support	23	119	48	50	50	50	49	246
Maintenance	0	0	1	2	1	1	1	5
Renewals	0	0	10	14	15	17	15	71
Schedule 4 & 8	0	0	0	0	0	0	0	0
Traction electricity, industry costs and rates	0	0	3	3	3	3	3	14
System Operator	(23)	(119)	(62)	(69)	(70)	(72)	(70)	(344)
Route-controlled risk funding	n/a	n/a	0	0	1	1	1	3
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	1	1	2	4
RPI/CPI differential adjustment[14]	0	0	0	0	0	0	0	0
Gross revenue requirement	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Other single till income	0	0	0	0	0	0	0	0
FNPO Recharge	n/a	n/a	0	0	0	0	0	0
Net revenue requirement	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Variable charges	0	0	0	0	0	0	0	0
EC4T	0	0	0	0	0	0	0	0
Schedule 4 ACS	0	0	0	0	0	0	0	0
FTAC	0	0	0	0	0	0	0	0
Network Grant	0	0	0	0	0	0	0	0
RPI/CPI differential adjustment	0	0	0	0	0	0	0	0
Total SoFA related income	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Closing RAB balance	80	n/a	80	80	80	80	80	n/a

[14] The RPI/CPI differential takes account of lower expected indexation increases during CP6 as a result of the move from RPI to CPI, for more detail see 'Supplementary document – Financial Framework'.

Table 2: Summary of our efficiency assumptions for CP6

%, exit to exit basis[15]	CP6				
	2019-20	2020-21	2021-22	2022-23	2023-24
Operations	0.0%	0.0%	0.0%	0.0%	0.0%
Support	2.7%	3.6%	4.3%	5.0%	6.5%
Maintenance	0.0%	0.0%	0.0%	0.0%	0.0%
Renewals	0.0%	0.0%	0.0%	0.0%	0.0%
Total	2.2%	2.7%	3.3%	3.8%	5.0%

[15] The measurement of efficiency compares spending in the last year of CP6 with the last year of CP5 (i.e. exit to exit). A positive number equals efficiency, a negative number equals inefficiency.

Our requirements of the SO in CP6

51. In this section, we set out our final position on each of the requirements we are making of the SO as part of this determination.

52. Our requirements on the SO focus on ensuring that the SO is sufficiently transparent to allow stakeholders and ourselves to hold the SO to account effectively. Our requirements also focus on ensuring that the SO meet the governments' HLOSs and that it effectively learns the lessons from the issues arising from the introduction of the May 2018 working timetable.

53. For each of the requirements on the SO, we set out below:

- what we proposed in the draft determination;
- any stakeholder comments; and
- our final position on what the SO is required to deliver in CP6.

Use of scorecards

54. In the draft determination, we said the SO should report on its performance through the (national) tier 1 scorecard, as well as the tier 2 (directorate level) and tier 3 (geographically disaggregated) SO scorecard structure. The SO should also clearly set out what each measure means (e.g. what data it is based on) so that its stakeholders can interpret what the scorecards are saying about the SO's performance.

55. The SO's scorecards capture what it plans to deliver over (at least) the next year. They provide a vehicle for recording what each customer wants, agreeing how it should be measured and what level of performance is reasonable. The SO will be using its scorecards to monitor its own performance, and to incentivise its teams to deliver the commitments set out in its plans.

56. The tier 1 scorecard contains a range of measures of the SO's performance. Some of these cut across the SO's work, including measures of the SO's financial expenditure, the safety of its workforce and the level of customer satisfaction. The tier 1 scorecard also reports on the SO's performance in the major areas of its operating model, for instance how many of its strategic planning milestones it has met, or on the number of train delays which have been caused by the timetable.

Figure 4: The SO's 2018/19 Period 5 scorecard

System Operator | *MD:* *Jo Kaye* | *FY Period:* *18/19 P 5*

NetworkRail

Safety & Sustainability	PRP %		WORSE	TARGET	BETTER	PERIOD Actual vs. Planned	YTD		FYF	ACHIEVEMENT
Everyone home safe every day *(work related absence incidents - total)*			40	35	30	3/3	11	↓	28.6	
Workforce safety *(% close calls closed within 90 days)*	20%	10.0%	80%	85%	90%	83%/85%	99%	↓	97%	100%
Health and wellbeing *(improvement plan - milestone delivery)*		10.0%	60%	80%	100%	1/3	15	↓	83%	58%
Sustainability - supporting our communities *(0.5 volunteer days per employee per year,*			303	319	335	24/24.5	120	↓	312.0	
Finance	**PRP %**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
Financial performance measure – opex (£m)	20%	20.0%	29,801	29,361	28,921	2162/2312	9,910	↓	29,361	50%

Weighting reflect importance on performance related pay

Performance measured against target

Managing the access rights framework	PRP %		WORSE	TARGET	BETTER	PERIOD Actual vs. Planned	YTD		FYF	ACHIEVEMENT
Sale of access rights review *(key milestones)*	2.5%	2.5%	60%	80%	100%	1/1	100%	↑	100%	100%
Planning the timetable	**PRP %**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
WTT production milestones	5%	5.0%		4		0/1	0	↔	2	67%
TW-12 compliance			85%	90%	95%	0%/90%	0%	↔	0%	
Cross-functional improvement programmes	**PRP %**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
CP6 delivery plan/PR18 *(key milestones)*		1.0%	60%	80%	100%	1/1	100%	↑	100%	100%
End to end planning *(key milestones)*		1.0%	60%	80%	100%	0/0	0%	↔	80%	50%
Capacity planning improvement portfolio *(key milestones)*	5%	1.0%	60%	80%	100%	1/1	100%	↔	100%	100%
Role of the client & early stage project development *(key milestones)*		1.0%	60%	80%	100%	0/0	0%	↔	80%	50%
Analytical Capability *(key milestones)*		1.0%	60%	80%	100%	0/0	0%	↔	80%	50%

57. Having assessed the SO's tier 1 scorecard, we consider that it is balanced across its activities, meaning that it should go some way (when supplemented by the annual narrative report) to demonstrating whether the SO has met the commitments it has set out in its plans. We therefore expect that the SO's scorecards will be a useful tool to inform our own monitoring of the SO. We expect to see these scorecards at least quarterly, but welcome the SO's recent move to publish its monthly scorecards on its website.

58. Stakeholders had few comments on the structure or contents of the SO scorecards, beyond general support for the overall approach to developing the SO settlement. The SO acknowledged that it still had some work to do in defining the measures on its route-level tier 3 scorecards in particular. The SO has committed that it will agree its tier 1 scorecard with its Advisory Board on an annual basis, and will include an updated suite of scorecards in its Delivery Plan in March 2019. We have not set any CP6 baseline trajectories or regulatory minimum floors for the SO (unlike for the routes), reflecting the different nature of this part of Network Rail's business.

59. In light of this consultation, our requirement remains unchanged, and we require that the SO will:

- **report on its performance through the (national) tier 1 scorecard, as well as the tier 2 (directorate level) and tier 3 (geographically disaggregated) SO scorecard structure**. The SO should also set out what each measure means (e.g. what data it is based on) so that its stakeholders can interpret what the scorecards are saying about the SO's performance.

Annual narrative report

60. In the draft determination, we said the SO would be required to produce and publish an annual narrative report to explain those elements of its performance that do not lend themselves to scorecard reporting, and to reflect on the quality of its service and areas for improvement. To ensure the report is sufficiently comprehensive, we said the SO should agree the content of its annual narrative report with its Advisory Board.

61. The annual narrative report should enable the SO to provide a more holistic view of its performance, including in demonstrating its progress in developing its capabilities. We would expect this to include reporting on progress to improve the efficiency and effectiveness of the timetable process, the strengthening of its timetabling resources, and the implementation of any recommendations coming from phase 2 of the inquiry and from our investigation's final order. There may be a need for other forms of reporting around this, which we would discuss with the SO through our regular engagement.

62. Stakeholders had few comments on the structure or contents of the SO annual narrative report, beyond general support for the overall approach to developing the SO settlement. In its response, the SO set out that it will further discuss the structure and topics of the annual narrative report with its stakeholders as part of its Delivery Plan consultations throughout the summer and autumn 2018[16]. It will then consolidate this for discussion with its two new Standing Advisory Groups (see below), before generating a final proposal for the structure and topics of the report for endorsement by the SO's Advisory Board by February 2019.

63. In light of this consultation, our requirement remains unchanged, and we require that the SO will:

- **produce and publish an annual narrative report** to explain those elements of its performance that do not lend themselves to scorecard reporting, and to

[16] The SO has used its Standing Advisory Group meetings in September and October 2018 to propose focus areas for the 18/19 Annual Narrative Report, and has included this in its engagements to date in support of its Delivery Plan to be published by 31 March 2019.

reflect on the quality of its service and areas for improvement. To ensure the report is sufficiently comprehensive, we require the SO agree the content of its annual report with its Advisory Board.

External governance arrangements

64. In the draft determination, we said the SO would be required to embed the new external governance framework as set out in its strategic plan and in a supplementary letter provided to ORR.

65. We have summarised the new governance arrangements earlier in this document. The new governance framework is intended to enable stakeholders to influence the SO's priorities and, where necessary, to challenge its performance. These governance arrangements should support the SO's objectives of being impartial, expert and transparent.

66. The SO will publish the papers and minutes of the Advisory Board and Standing Advisory Groups meetings (subject to the normal responsibilities of confidentiality and commercial interest), and the minutes will be agreed with the Advisory Board Chair. The SO expects that there will also be dialogue between the Chair of the Advisory Board and the ORR, so that we can take stakeholders views into account in our monitoring of the SO's delivery to its customers. This is in line with our wider approach to routes' new Railway Boards.

67. Stakeholders had few comments on the structure of the SO's proposed external governance framework, beyond general support for the overall approach to the SO settlement. The inaugural meeting of the SO Advisory Board took place in July 2018, and the SO intends to review the framework with industry throughout January and February 2019.

68. In light of this consultation, we require the SO to:

- **embed the external governance framework as set out in its strategic plan and in line with its May 2018 supplementary letter** to enable stakeholders to influence the SO's priorities and, where necessary, to challenge its performance. There **should be a means for the Advisory Board chair and the ORR to have direct and regular dialogue** to enable ORR to use the new governance framework in the way we monitor the SO over CP6.

Scottish journey time improvements

69. In the draft determination, we said the SO would lead the development of a plan for journey time improvement in Scotland, working with other parts of Network Rail (including the Scotland route and the Freight and National Passenger Operator (FNPO) route) and with industry, which meets the requirements of the Scottish

Ministers' HLOS. We said the plan needed to be provided to ORR by 30 November 2018 for review and approval. We also said the SO must also work in cooperation with the Scotland route to implement the plan.

70. Stakeholders welcomed the SO's lead role on improving journey times improvements in Scotland. Transport Scotland stressed the need for the ORR to continue to monitor the process of reducing journey times in Scotland rigorously, and said that Transport Scotland should be involved in the development of these plans before they are submitted to ORR for review on 30 of November 2018.

71. Both developing the plan and delivering it on the ground will require contribution from various parts of Network Rail and the rail industry. However, to help ensure this requirement is delivered, we require the SO to be accountable for overseeing both the development and delivery of that plan, and for leading Network Rail's contribution. During CP6, the SO will be our first point of focus in monitoring whether Network Rail is doing everything reasonably practical to achieve the objective.

72. We will review this plan delivering journey time improvements (using independent reporters, if necessary) to consider whether it meets the HLOS requirement, and is deliverable. If we find specific weakness with Network Rail's plan, we will require Network Rail to address them. The plan will then be finalised by 31 March 2019.

73. During CP6, if the plan requires any capital expenditure in addition to Network Rail's core plans, Transport Scotland will need to approve this in line with established processes for funding enhancements in Scotland.

74. To clarify our position, therefore, we have broken this down into two parts, and we require that the SO:

- **is accountable for developing an industry plan (by 30 November 2018 for ORR review, and finalised by 31 March 2019) to deliver the passenger and freight journey time requirements set out in the Scottish Minister's HLOS**[17]**,** working with other parts of Network Rail (including the Scotland route and the FNPO route) and with industry and government stakeholders; and
- **is accountable for overseeing the delivery of the actions set out in the industry plan to improve journey times in Scotland** according to the timescales stated in the plan (subject to any amendments we might make following our review)**, and for reporting on progress** (including through the use of scorecards across SO and the Scotland and FNPO Routes). Other parts

17 Those requirements are to deliver a Scotrail minutes per mile target of 1.587 by December 2019 and 1.576 by December 2024 and a freight speed increase of 10%, by December 2024.

of Network Rail will also be responsible for delivering elements of the plan, and the SO will lead Network Rail's delivery of its actions.

75. There are a number of other Scotland HLOS requirements which the SO is accountable for delivering[18], which we will also monitor, including:

- the creation of an expert whole-industry project client (HLOS reference 4.2);
- dedicated timetabling resource for Scotland (HLOS reference 4.2);
- availability of cross-border routes (HLOS reference 6.11 and 6.12); and
- the development of a depot and stabling strategy (HLOS reference 6.37).

Nichols recommendations on the SO's capital expenditure processes and controls

76. In the draft determination, we required the SO to implement the recommendations from the Nichols review of the SO's capital expenditure controls and processes to ensure it can deliver around £60m of proposed investment in its systems (which is a considerable increase compared with CP5 levels). To support this, we required the SO to produce an action plan of how (and by when) it will implement each of these recommendations by 31 August 2018, and to provide a statement on its progress against this plan in the SO's first annual narrative report.

77. The main recommendations of that report were that the SO should:

- clarify and strengthen the level of relevant industry representation in the development and delivery of the CP6 SO capital expenditure programmes;
- build on the good foundations already in place to further clarify and strengthen its processes and controls for capital expenditure programmes; and
- improve its resource management across the capital expenditure portfolio, including in relation to relevant financial contingency.

78. Since the draft determination, the SO has submitted a plan to us that addresses Nichols' recommendations. We expect that this should strengthen the SO's ability to deliver its investment programmes in CP6.

79. In their responses, stakeholders were broadly supportive of the SO making an investment in its systems (indeed some felt more should be invested in timetabling systems), and a number specifically referenced the importance of the Nichols' review in improving the SO's capabilities.

80. We will monitor the SO's progress in implementing these recommendations as part of our overall monitoring of the SO's performance. In advance of CP6, we also require

[18] These HLOS requirements are discussed in more detail in our Scotland settlement document

the SO to report to us in January and April 2019 of the progress it has made in implementing its action plan.

81. In light of our review of the SO's action plan to address the Nichols' review, we require that the SO:

- **must implement the actions it has identified to address the recommendations from the Nichols' review of the SO's capital expenditure controls and processes** to ensure that it can deliver its proposed investment of around £60m in its systems.

Learn lessons from the introduction of the May 2018 timetable

82. In the draft determination, we said the SO must take account of lessons learnt from the May 2018 timetable change, including the findings from our investigation into Network Rail's role and our wider inquiry into why the system as a whole failed to produce and implement an effective timetable.

83. In response to the inquiry findings, the SO may need to make some changes to its planned activities in CP6. It is important that the SO uses its reporting to demonstrate the action it takes in response to these findings, and that it considers what impact these actions might have on its plan.

84. We therefore require that the SO must:

- demonstrate that it has **taken account of lessons learnt from the May 2018 timetable change**, including recommendations from our inquiry into why the system as a whole failed to produce and implement an effective timetable. With the SO, we will consider how best it can report on its work to improve the timetabling process during CP6.

Conclusions

85. We consider that this settlement gives the SO the efficient resources it needs to meet the commitments it has set out to its strategic plan, to meet the requirements of both governments' HLOSs and to continue on its transformation to become the recognised expert for rail system operation analysis. We therefore consider that the SO's direct expenditure of £272m are justified.

86. However, it is crucial that the SO is able to demonstrate the success of its delivery, its value for money and its ability to provide independently minded advice and decisions. This settlement and our approach to regulating the SO should support industry's desire for an expert, transparent and impartial SO that acts in the best interests of the system as a whole, favouring neither operators nor Network Rail in its decision making.

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