

CP6 route settlement document

Western route



Purpose

This document summarises the key aspects of the settlement that we have set for the Western route as part of our final determination for control period 6 (CP6)¹.

More detail on our final determination, including our decisions in respect of the Western route, is available in our [PR18 final determination](#) overview and supplementary documents.

Introduction

1. As part of our 2018 periodic review of Network Rail (PR18), we have set separate settlements for each of Network Rail's routes in England & Wales². Each settlement includes what the route is expected to deliver in CP6 and the funding that it has been allocated to support this. The settlement for the Western route reflects our decisions following our consideration of responses to our June 2018 draft determination.
2. Among other things, our draft determination set out our assessment of Network Rail's routes' strategic plans (RSPs) for CP6, which the company published in February 2018³. We broadly endorsed the RSPs, but identified a small number of areas where we considered changes needed to be made, as set out below.
 - **Efficiency:** we did not consider that Network Rail had provided sufficient justification for its overall efficiency challenge, and we asked the company to identify a further £586m of savings in England & Wales, to be found from across the company.
 - **Asset sustainability:** the RSPs of each of the routes in England & Wales had forecast a decline in asset condition during CP6 (against the levels at the end of CP4). Reflecting our previous concerns about asset condition earlier in CP5, and taking account of the reasons why the Secretary of State provided additional funding for Network Rail in his statement of funds available, we asked Network Rail to add around £1bn of additional work to improve asset condition in CP6. We also asked it to set out proposals for how this should be allocated across the routes. The aim of this was to improve the resilience of the railway

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

² We also set separate settlements for Network Rail's System Operator (the SO), the Freight & National Passenger Operator route (the FNPO) and the Scotland route. Separate documents relating to these are available elsewhere in our [final determination](#).

³ We published a high-level overview of our assessment of the Western route strategic plan [here](#).

and, when completed, have a positive impact on safety and the performance levels delivered to passenger and freight users. We also asked Network Rail to consider the phasing of this additional work so that it improves the overall deliverability of renewals work over the longer-term.

- **Safety-related expenditure:** we considered that in a number of areas more work would be needed to meet the required legal safety standards in CP6. We said that Network Rail should allocate £25m to routes to upgrade user-worked crossings, on the basis of the highest priority need, so that these have overlay warning systems rather than relying on telephones.
- **Performance:** we said that we were providing an additional opportunity for routes (in England & Wales) and passenger operators to agree suitable targets for delivery across CP6, given that as of June 2018 they had been unable to agree. For the Western route, this included Great Western Railway (GWR) and Heathrow Express (HEX).

Network Rail and the Western route's response to our draft determination

3. Following our draft determination, Network Rail and its routes undertook further work to enable our proposed decisions to be implemented, on the basis that this would be without prejudice to the company's decision on whether to accept our final determination.
4. In July 2018, it provided us with two separate submissions: one setting out the routes' responses to our challenge on asset sustainability; and the other on performance. Then, on 31 August 2018, it provided its full response to our draft determination⁴.
5. Our review of the Western route's responses to the key areas mentioned above are discussed below. Fuller details are set out in our final determination supplementary documents on [Network Rail's proposed costs](#) and on its [scorecards and requirements](#).

Efficiency⁵

6. The Western route's February 2018 RSP included £136m of net efficiency on direct costs (that is, costs that the route directly incurs, rather than those it indirectly incurs

⁴ Network Rail's published responses to the PR18 draft determination consultation are available [here](#).

⁵ Some of the changes that have been made to the efficiency forecast since our draft determination have not had an impact on funding. This is because if we move a cost pressure in CP6 to be part of base (2018-19) costs, this increases efficiency in CP6, but the expenditure still needs to be funded. For example, Network Rail identified the apprenticeship levy as a cost pressure in CP6, even though it has already been introduced, so should be included in the costs for 2018-19. These issues are explained in the [supplementary document](#) on our review of Network Rail's proposed costs.

such as the allocation to it of central costs). As set out above, in our draft determination in June 2018, we challenged Network Rail to identify significant further savings across England & Wales.

7. In its response, Network Rail proposed to deliver an additional £573m of savings across England & Wales (including reallocating some cost pressures that Network Rail included in its efficiency assumption to base costs). Of this, the Western route proposed £46m⁶ of additional net efficiencies. Following our review, we have accepted the proposals in our final determination.
8. Accordingly, Western's CP6 settlement includes an overall efficiency improvement of nine percent⁷, on a CP5 exit to CP6 exit basis⁸. This is presented in more detail in Table 4 later in this document.

Asset sustainability

9. Western's February 2018 RSP set out that its planned CP6 renewal levels would result in a reduction in the forecast composite sustainability index (CSI) over CP6. CSI is an indicator of the remaining life of the asset or its underlying condition based on estimating the depreciated asset value. Taking the end of CP4 as the baseline, the RSP forecasted a value of +1.3% for Western route by the end of CP6 (compared with an expected value of +2.3% by the end of CP5). Hence, sustainability, as measured by CSI, would decline.
10. In the draft determination, we originally estimated that an additional £74m of renewals would be needed to maintain CSI at its CP5 exit level in the Western route. In aggregate, we estimated that c.£2bn would be needed to maintain CSI across the whole network.
11. We recognised that an increase in renewals of this level would be impractical without either additional funding or a major and disruptive reprioritisation of Network Rail's plans. Our draft determination therefore proposed that Network Rail should spend an additional c.£1bn on improving asset sustainability across England & Wales. We asked Network Rail to carry out further work over the summer to allocate this expenditure across the routes and for the routes to identify a prioritised list of proposals.
12. As part of Network Rail's interim response to the draft determination, the Western route put forward prioritised proposals to spend up to £110m on additional work. We

⁶ For clarity, this number equals the efficiency savings in the route's direct costs and the reallocation of some cost pressures to base costs.

⁷ For clarity, this figure includes efficiencies within the indirect costs allocated to the route.

⁸ The measurement of efficiency compares spending in the last year of CP6 with the last year of CP5.

assessed technical and deliverability aspects of these prior to receiving Network Rail’s formal response to the draft determination on 31 August 2018.

13. In its formal response, Network Rail put forward a case that asset sustainability could be maintained at acceptable levels with a smaller increase in renewals expenditure of £608m (rather than the c.£1bn we proposed). Its argument was based on limitations in the CSI methodology, together with recognition of the longer-term benefits arising from research and development, enhancements, reactive work and (potentially) contingent renewals⁹ funded from unused risk funding. Of the £608m, Network Rail proposed that £50m should be allocated to Western.
14. As discussed elsewhere in the final determination, we have accepted Network Rail’s arguments on this, along with its proposed route allocations. Accordingly, Western has been allocated an additional £50m of renewals funding in its CP6 settlement. Its proposed additional works, which reflect its current prioritisation, are shown in Table 1.

Table 1: Additional asset sustainability schemes for Western route

Priority level	Scheme ID	Scheme description	August 2018 allocation
1	RWES01	Signalling improvement	£10.1m
2	RWES02	Targeted track renewals	£16.7m
3	RWES03	Level crossing safety	£10.0m
4	RWES04	Structure interventions	£6.7m
5	RWES05	Paddington drainage	£1.7m
6	RWES06	Additional earthworks renewals	£2.7m
7	RWES07	Fencing & vegetation	£2.0m
		Schedule 4	£0
Total			£50m

Source: Network Rail (NB. The numbers in the table may not sum to the total due to rounding.) Budgets were nationally agreed by directors of route asset management based on the principles followed in producing the SBPs. The process prioritised the main areas of STE concern (STE is the Safety, technical and engineering directorate within Network Rail, which carried out an assurance review of route plans ahead of submission to ORR). This is further discussed in our document summarising stakeholder responses to the draft determination (available [here](#)).

⁹ This is now called contingent asset management funding. This is funding that routes will programme into route plans on projects that can be cancelled or delayed relatively easily (and without safety consequences) if risks do materialise and need funding. If risks do not materialise the funding can be used to improve outputs. Contingent asset management funding is discussed further later in this document.

15. The Western route prioritised 20% of the additional sustainability funds on level crossing improvements. These do not give a CSI benefit as measured under the existing methodology. This package of work is discussed further in the safety section below.
16. We anticipate that, with this increase in funding, the Western route will see CSI falling from +2.3% at the end of CP5 to +1.6% at the end of CP6 (as opposed to falling to +1.3%, as had been forecast in the RSP).

Safety

17. Following our challenge on user-worked level crossings (UWCs), Network Rail set out in its draft determination response (available [here](#)) how it proposed to use the additional £25m of funding. This was based on a risk prioritisation and assessment by STE on how best to optimise risk reduction at UWCs across Great Britain.
18. Reflecting this assessment, Network Rail has allocated £4m of the £25m to Western, which has identified where it would spend this money. We have included this additional funding in the route's CP6 settlement and look forward to seeing its specific plans in due course.
19. Further, although we made no specific safety recommendations for the Western route in the draft determination, as discussed above, it proposed £10m of additional expenditure on level crossing safety improvements as part of its response to our asset sustainability challenge (as discussed above). This includes targeted action at high-speed passive level crossings to provide replacement footbridges and/or signalling protection to remove passive crossings on 125mph sections of its network.

Performance trajectories

20. As discussed above, the route and its passenger operators had not reached agreement on performance trajectories. We therefore asked them to continue to try to reach agreement over the summer. This reflected that in PR18 we have placed particular emphasis on the importance of routes agreeing suitable performance metrics and trajectories with their customers.
21. In order to understand our decisions on performance it is important to distinguish clearly between the following:
 - **CRM-P¹⁰**: this is a measure of Network Rail's own performance and is based on delay minutes. Each route will have its own CP6 baseline trajectory for CRM-P. This will act as a baseline against which we and stakeholders can measure how

¹⁰ CRM-P stands for consistent route measure – passenger performance.

well the route is performing against other routes. We have also set a regulatory minimum floor for this measure (discussed below); and

- **customer agreed passenger performance measures:** these are the measures for which we asked the routes to agree metrics and trajectories with their customers.
22. The [scorecards and requirements supplementary document](#) sets out the approach we took to reviewing the route's performance proposals. This included:
- a review of operator trajectories;
 - an assessment of each route's performance models; and
 - meetings with routes to understand the level of stretch and achievability.
23. To support our review, independent reporter Arup (supported by Winder Phillips) carried out an initial review of train performance across Great Britain; this [report](#) was published alongside our draft determination. It then undertook a further review to assess Network Rail's response to the performance challenge set out in our draft determination; this [report](#) will be available on our website shortly following publication of our final determination.
24. We also reviewed the responses to our draft determination from Network Rail, train operators and wider stakeholders. Please see our [document](#) summarising these responses for further details on this.
25. The outcome of the further discussions over the summer and our review is set out below. In particular, Table 2a details the extent to which Western route was able to agree with its customers.

What the route will deliver in CP6

26. In its February 2018 RSP (available [here](#)), the Western route set out what it proposed to deliver in CP6. Within this, it included a scorecard containing:
- measures that were developed with customers/local stakeholders, including particular train operator performance measures; and
 - a set of 'consistent measures' that apply to all of Network Rail's geographic routes and which will enable comparison across routes during CP6.
27. Our decisions about asset sustainability and performance are discussed above and are set out in full in our [scorecards and requirements supplementary document](#). We have set CP6 baseline trajectories for the following consistent route measures only: CSI, CRM-P and FDM-R (freight delivery metric – route). These trajectories will act as a baseline against which we will measure Network Rail's delivery to current and future passengers and freight end users over the control period in our monitoring and

reporting. Through its business planning process and agreement of annual scorecards, Network Rail’s annual targets may vary from this CP6 baseline trajectory, which we will take into account in our monitoring and reporting. We will also take into account changes made through the ‘managing change’ process (discussed below). As such, we have updated the consistent route measures table below to reflect our decisions. Table 2 below sets out:

- CP6 baseline trajectories for CSI, CRM-P and FDM-R, reflecting our final determination decisions (in bold); and
- the route’s own RSP targets for its consistent route measures, which are not affected by our final determination decisions¹¹.

28. The scorecard in the RSP included the targets that the route set itself against these consistent route measures.

Table 2: Route consistent measures including CP6 baseline trajectories

Area	Metric	CP6				
		2019-20	2020-21	2021-22	2022-23	2023-24
Safety	Lost time injury frequency rate (LTIFR)	0.383	0.320	0.277	0.223	0.170
	Train accident risk reduction measures	80%	80%	80%	80%	80%
	Top 10 milestones to reduce level crossing risk	8	8	8	8	8
	Railway management maturity model (RM3)	We expect Network Rail to provide targets and benchmarks for the start of CP6				
Train performance	Consistent route measure – passenger performance (CRM-P)	2.03	1.96	1.85	1.74	1.70
	Freight delivery metric – route (FDM-R)	93.7%	93.7%	93.7%	93.7%	93.7%
Asset management	Composite sustainability index (CSI)	-	-	-	-	1.6%
	Reduction in service affecting failures (SAF)	0.6%	1.5%	3.6%	3.5%	2.7%
	Composite Reliability Index (CRI)	-3.0%	-2.8%	1.1%	4.9%	7.5%
	7 key volumes	95%	95%	95%	95%	95%
	Top investment milestones	80%	80%	80%	80%	80%

¹¹ The routes will update these trajectories as part of their business planning processes. Other measures that the route included on its full scorecard (including the measures agreed with customers and local stakeholders) are available within the route’s [RSP](#).

Area	Metric	CP6				
		2019-20	2020-21	2021-22	2022-23	2023-24
Financial performance ¹²	Financial performance measure (FPM) – gross excluding enhancements	£0	£0	£0	£0	£0
	Financial performance measure (FPM) – gross enhancements only	£0	£0	£0	£0	£0
	Cash compliance – income and expenditure	£0	£0	£0	£0	£0

29. The Western route also included in its RSP long term scorecard a number of customer focused measures, which it sought to agree with its respective train operator customers.

30. The route was unable to agree a trajectory with HEx. As a result we will focus our monitoring and reporting on the CRM-P CP6 baseline trajectory. We will keep under review the approach that the route is taking to agreeing trajectories with its customers. We expect to place weight on any trajectories agreed in Network Rail's delivery plan (as discussed below) and any annual targets agreed between Network Rail and operators.

31. However, Western was able to agree a trajectory with GWR. We will place reliance on this trajectory in our monitoring and reporting in CP6, and recognise that this can be updated through Network Rail's business planning process. The trajectory agreed was:

Table 2a: Agreed customer trajectories

Area	Metric	CP6				
		2019-20	2020-21	2021-22	2022-23	2023-24
Train performance	GWR public performance measure	84.5%	85.5%	87.1%	88.8%	89.9%

32. For each of the measures for which we have set a CP6 baseline trajectory, we have also set a regulatory minimum floor. This reflects the point below which we are highly likely to consider a formal investigation into whether or not Network Rail has breached its network licence.

¹² If the route's actual net expenditure in a particular year of CP6 is equal to the amount of net expenditure in its budget for that year, the metric will equal zero. Therefore, the baseline trajectory in this table assumes that the route will spend no more and no less than its budget.

Table 2b: Regulatory minimum floors

Area	Metric	CP6				
		2019-20	2020-21	2021-22	2022-23	2023-24
Train performance	Consistent route measure – passenger performance (CRM-P)	2.40	2.33	2.22	2.11	2.07
	Freight delivery metric – route (FDM-R)	92.1%	92.1%	92.1%	92.1%	92.1%
Asset management	Composite sustainability index (CSI)	-	-	-	-	0.8%

Risk funding

33. Following consultation in our draft determination, we have confirmed our decision that Network Rail should change its approach to managing risk. We consider that this, alongside effective governance and some central control together with more involvement of the route managing directors, will support more efficient delivery by the company.
34. In particular, we have reallocated £856m of its proposed £1.7bn centrally-held risk funding (the ‘group portfolio fund’), so that it is held by the routes as contingent asset management funding, in addition to the share of risk funding that Network Rail had originally allocated to the routes (route-controlled risk funding). In addition, the route also contributes to the ‘group portfolio fund’. The amounts for the Western route are set out in Table 3 below. More details of our approach can be found in our financial framework supplementary document (available [here](#)).
35. The contingent asset management funding, to the extent that it is not required to mitigate risk over the course of CP6, should be used to deliver further improvements in asset condition and performance. Ahead of CP6, the routes will identify the improvements that could be delivered using this funding and will set out the broad outcomes that would result.
36. Recognising that any additional work would be contingent on risks not materialising, the initial scorecard targets for CP6 will not reflect any potential improvements from using this funding. But, in the event that the risks facing Network Rail moderate, and the additional work is able to be delivered, scorecard targets could be adjusted appropriately later to reflect the improvements.

Route funding in CP6

37. In its RSP, the route set out its proposed expenditure and income forecasts for CP6. We included these in the route review [summary](#) that we published in June 2018. Network Rail has responded positively to our challenge on efficiency. We have

accepted the route's 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. Table 3 below sets out our assumptions on the route's funding for CP6 and Table 4 sets out our assumptions for the route's efficiency in CP6.

38. We will be monitoring the route's delivery of its requirements against this baseline, subject to any change control of the settlement as set out in our managing change policy to be published in November 2018.

Table 3: Summary of our expenditure and income assumptions for CP6¹³

£m (2017-18 prices)	CP5		CP6					
	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Operations	54	231	65	65	65	64	64	323
Support	39	169	42	42	40	38	39	201
Maintenance	141	668	154	160	150	149	148	762
Renewals	310	1,540	325	354	342	359	248	1,627
Schedule 4 & 8	45	215	23	28	28	29	18	126
Traction electricity, industry costs and rates	56	169	72	73	75	84	84	387
System Operator	2	12	5	5	5	5	5	25
Route-controlled risk funding	n/a	n/a	6	11	15	19	17	69
Contingent asset management funding	n/a	n/a	9	16	21	28	25	99
Route contribution to group portfolio fund	n/a	n/a	8	15	18	26	32	98
RPI/CPI differential adjustment ¹⁴	5	(25)	12	20	26	35	35	128
Gross revenue requirement	652	2,979	720	788	786	836	715	3,846
Other single till income	(146)	(536)	(73)	(71)	(74)	(74)	(74)	(365)
FNPO Recharge	n/a	n/a	(141)	(149)	(147)	(159)	(131)	(727)
Net revenue requirement	507	2,443	506	568	565	604	510	2,753
Variable charges	(44)	(207)	(48)	(47)	(48)	(48)	(48)	(238)
Electricity current for traction	(34)	(56)	(45)	(47)	(48)	(48)	(49)	(237)
Schedule 4 access charge supplement	(24)	(124)	(23)	(28)	(28)	(29)	(18)	(126)

¹³ In the CP5 total column, all of the numbers represent actual income and expenditure (including a forecast for the rest of the control period). This includes income for expenditure that in CP6 is outside of the Statement of funds available (SoFA) and therefore not shown in the CP6 columns.

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 our [supplementary document](#) on the financial framework.

£m (2017-18 prices)	CP5		CP6					
	2018-19	Total	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Fixed track access charges	(131)	(471)	(74)	(82)	(71)	(132)	(82)	(442)
Network Grant	(405)	(2,133)	(315)	(364)	(368)	(343)	(311)	(1,701)
RPI/CPI differential adjustment	(6)	27	(1)	(1)	(2)	(2)	(3)	(10)
Total SoFA related income	(644)	(2,963)	(506)	(568)	(565)	(604)	(510)	(2,753)
Closing RAB balance	9,333	n/a	9,333	9,333	9,333	9,333	9,333	n/a

Table 4: Summary of Network Rail's forecast efficiency for CP6¹⁵

%, exit to exit basis	CP6				
	2019-20	2020-21	2021-22	2022-23	2023-24
Operations	1.1%	1.6%	2.4%	3.1%	4.3%
Support	2.7%	3.9%	6.9%	7.8%	7.8%
Maintenance	1.5%	2.2%	5.2%	6.0%	6.6%
Renewals	2.6%	9.8%	14.0%	14.4%	12.3%
Total	2.2%	6.8%	10.3%	11.0%	9.3%

Network Rail's delivery plan

39. 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 plan will comprise a suite of documents including:

- (a) updated versions of the strategic plans (reflecting our final determination) for: each geographic route; the Freight and National Passenger Operator (FNPO) route; the System Operator; and the central support functions. There will also be an overview of the Network Rail business as a whole. Network Rail will then refresh these annually; and
- (b) updated Network Rail scorecards, including those for the Western route. We expect these to be published quarterly during CP6, with a commentary on progress and any changes (noting it is open to Network Rail to make alternative proposals as the monitoring and reporting arrangements take shape through CP6).

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. The total efficiency shown is the weighted average of the efficiency of the items listed in the table.

40. In totality, the documents that form the delivery plan will detail: Network Rail's planned activities to 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.
41. Further details on our requirements for the delivery plan are set out in our delivery plan [notice](#).
42. Network Rail has committed to continuous, proactive engagement with its stakeholders to develop and shape its strategic plans and customer scorecards.

The framework for regulating delivery in CP6

43. Chapter 3 of our final determination [overview document](#) sets out our framework for regulating Network Rail's delivery in CP6. In particular, it describes how we intend to monitor and report on what routes deliver to their customers, and how we will hold them to account against their settlements.
44. We will shortly be consulting on changes to our monitoring and economic enforcement policy to reflect this approach. We will also be carrying out work to develop and implement the monitoring framework, for example, the scope and nature of our reporting on Network Rail routes' performance.

Changes to the settlements

45. Our regulatory framework recognises that circumstances may change during CP6 and that Network Rail, the routes and the SO must be able to respond appropriately and to adapt their plans so that they still deliver for customers and stakeholders. Equally, the framework takes account of the risk that changes to settlements could limit our ability to compare routes, and thereby undermine route-level regulation.
46. We set out the key principles for how changes should be made to settlements in our June 2018 conclusions on [managing change](#). These are summarised in our final determination [overview document](#).
47. Building on our conclusions, we will be publishing our [managing change policy](#) in November 2018, setting out how the managing change process will work in practice.



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