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**Secretariat memorandum**

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**Network Rail periodic review 2008 draft determination  
Proposed response to consultation**

**1 Purpose of report**

- 1.1 To provide background information on, and a proposed response to, a consultation by the Office of Rail Regulation (ORR) on its proposed determination of Network Rail's funding and other arrangements for Control Period 4 (CP4), which runs from 1 April 2009 to 31 March 2014.

**2 Structure of report**

- 2.1 Section 3 summarises the purpose of the "draft determination" and the process by which it is developed.
- 2.2 Section 4 sets out a proposed response by London TravelWatch to ORR's consultation.
- 2.3 Sections 5 to 8 meet procedural requirements.
- 2.4 The *Summary* and accompanying *Annex D : ORR assessment of enhancement schemes in Network Rail's SBP update* are reproduced verbatim from ORR's publication *Periodic review 2008 : Draft determinations*.

**3 Information**

- 3.1 Network Rail is responsible for the safe and efficient operation, maintenance and enhancement of the national rail infrastructure in England, Wales and Scotland. Its income to fund this work comes broadly through four streams :
- Track access charges paid by passenger train operating companies (TOCs)
  - Track access charges paid by freight operating companies (FOCs)
  - Network grant paid by the Department for Transport (DfT) (for England and Wales) and by the Scottish Executive (for Scotland)
  - Other income – mostly property rentals and sales.
- 3.2 Most of the track access charges are paid by the franchised TOCs, most of which in turn are part-funded by DfT or the Scottish Executive. If track access

charges rise or fall, DfT/Scottish Executive payments to the TOCs are adjusted accordingly.

- 3.3 The scale of the business can be judged from its revenue for the year ending March 2008. Total income was £6bn. Of this, £5.6bn came from the TOCs' track access charges or from the network grant. Thus Network Rail has a high level of dependence on public funds.
- 3.4 In addition, Network Rail is the monopoly supplier of rail infrastructure. Like other public utilities, it is a regulated company, and this function is carried out by the ORR.
- 3.5 One of the main duties of ORR is to determine the level of income – and therefore the track access charges and network grant - which Network Rail should receive. This determination is carried out in five year blocks, called control periods (CP). We are currently in CP3, covering 2004 to 2009. Since 2005 ORR has been working on its determination of Network Rail's income for CP4 covering 2009 to 2014.
- 3.6 The basis for the determination starts with the two governments (DfT and Scottish Executive) each issuing a five-year high level output specification (HLOS) and a statement of funds available (SoFA). In short, each says what outputs it wants to buy and how much it is willing to spend.
- 3.7 Network Rail then issues a statement of what it considers it will cost to deliver the HLOS, in the form of its Strategic Business Plan (SPB). This includes descriptions of the enhancement works it considers necessary to meet the HLOS, a statement of the efficiency savings which it considers it can make during the control period, and the resultant costings for each of the enhancement works and of the many other elements which make up the business.
- 3.8 It is then for ORR to review the SPB, make judgments as to whether the works listed are sufficient to deliver the HLOS and whether the efficiency savings are sufficient and realistic, and to determine its view of the appropriate cost of delivery – and therefore of Network Rail's required income.
- 3.9 If ORR's determination of the cost equals or is within the SoFA, track access charges and network grant levels can be fixed and the governments can enter an agreement with Network Rail to deliver the HLOS. If ORR's determination of the cost exceeds the SoFA, the governments must review their position in order either to find more money or to reduce the scope of the HLOS.
- 3.10 The current position is that Network Rail issued its SBP in October 2007. Following discussions with ORR, it issued an updated SPB in April 2008. This quoted a total requirement for £31.1bn over the five years of CP4.
- 3.11 In June 2008 ORR issued its draft determination, with a three month consultation period ending on 4 September. This proposes a cost of £27.8bn to deliver the HLOS. This is roundly £3.3bn (11%) less than Network Rail's figure. ORR concludes that its figure – divided between England & Wales and Scotland – is within both governments' SoFAs.

3.12 If, after ORR has considered the consultation responses, Network Rail disagrees with the final determination, it has the right to refer the matter to the Competition Commission.

3.13 As is to be expected for a very complex nationwide business with a £6bn turnover, the ORR's draft determination – available at <http://www.rail-reg.gov.uk/upload/pdf/368.pdf> - has involved a huge amount of work. This is reflected in a consultation document of 372 pages, supported by numerous detailed papers, consultants' reports and subsidiary consultations (several of which are still in progress). Many of the matters examined relate to technical engineering issues, and/or involve complex and arcane financial analysis. The conclusions often rest on judgments which a lay body is not equipped to evaluate. There are therefore limits to the elements of this consultation exercise which London TravelWatch can usefully address.

3.14 Nevertheless, it is self-evident that if the assumptions on which ORR's determination rests are wrong, and Network Rail has insufficient income to fund its activities as a result, the implications for rail passengers generally would be serious. And because much of the additional capacity for which the HLOS calls is to be created in the south-east, the effects would be felt by London rail users in particular.

3.15 For this reason, it is proposed that London TravelWatch should draw attention to some key areas of concern, in order that both ORR, other industry parties and interested stakeholders are alerted to the potential risks if ORR's conclusions turn out to be ill-founded. Justification for ORR's position can also be sought where this appears to be necessary.

#### **4 Proposed London TravelWatch response**

4.1 It is therefore proposed that a response is submitted to ORR on the following matters. All references relate to ORR's summary of its draft determination, or to its annex D which lists individual capacity enhancement projects arising from the HLOS. Both of these documents are attached as annexes to this paper.

4.2 *Efficiency improvements (summary paragraphs. 31–40 and table 5)*

A key issue for CP4 is the extent to which Network Rail can be expected to cut costs in all aspects of its business by improving its efficiency.

There is wide agreement that Britain's railway system costs more than necessary to operate, maintain and enhance. Network Rail does not disagree with this view. The reasons are rooted in its inheritance from Railtrack, and it has made much progress in addressing many of the shortcomings of that era. It accepts that becoming more efficient is a key part of its remit, and this is reflected in the SBP.

However, ORR consider that Network Rail's proposed efficiency savings are insufficient. In many areas of its activities, the draft determination calls for substantially greater savings than Network Rail has allowed. ORR proposes

*additional* savings of 10% in spending on day-to-day operations, 6% on maintenance and 10% on renewals.

These are large differences, which amount to £1.8bn. They represent 55% of the total difference of £3.3bn between ORR's and Network Rail's assessments of the income requirement.

ORR's case for its more stringent view rests heavily on reviews which it commissioned into the relative efficiency of Network Rail compared with that of other rail infrastructure operators in Europe.

Iain Coucher, Network Rail's chief executive, has stated publicly that the ORR figure is unrealistic. He does not dissent from the view that substantial efficiency savings are possible. However, he has queried whether the international comparisons made by ORR are entirely valid, because they appear to him not to take account of the possibility that some European operators are taking 'maintenance holidays' – i.e. renewing their assets at rates which fall below those needed to sustain the condition of the system. He believes that this is precisely what Railtrack did, and that the need to catch-up on deferred maintenance is a significant factor behind Network Rail's high expenditure requirement.

Iain Coucher further argues that even if ORR's assessment is valid, the rate of efficiency savings for which it calls is unrealistic, and that therefore the unit cost reductions proposed by ORR are not achievable within the five years of CP4.

London TravelWatch is not qualified to assess the validity of these competing arguments, and it is understandable that Network Rail should defend its corner. Nevertheless, even if ORR's projection proved to be only 50% too optimistic, there would be a shortfall of £900m in Network Rail's funding from this cause alone – sufficient to place several HLOS capacity enhancement projects at risk, to the direct detriment of passengers.

It is therefore crucial that ORR is challenged to demonstrate the robustness of its conclusions in this component of its determination.

#### 4.3 *Enhancement expenditure (summary paragraphs 41–48 and annex D)*

As well as the possibility of enhancement expenditure being put at risk by over optimistic projections of efficiency gains, there are issues arising from ORR's review of the costs and scope of many of the projects put forward by Network Rail to meet the HLOS capacity specification.

The list of specific schemes in annex D demonstrates that ORR has not taken a simple broad brush approach, and has studied each one in detail. In some cases ORR agrees with Network Rail's cost estimate. But in others ORR proposes a much lower figure, and suggested reductions up to 20% are common.

The following table lists schemes in the London TravelWatch area (or which are likely to have a material effect on the capacity or performance of the railway in that area) for which ORR proposes cost reductions of more than 20%.

<b>Scheme</b>	<b>Network Rail cost estimate £m</b>	<b>ORR assessment £m</b>	<b>London TravelWatch comments and questions</b>
12-car operation – Sidcup and Bexleyheath routes	5	-	These are two of the busiest routes into Charing Cross and Cannon Street. Platforms at Blackheath, Eltham and Mottingham need to be lengthened and/or the existing trains need to be fitted with selective door opening. How is this to be achieved?
Gatwick Airport remodelling and passenger capacity	30	9	This implies a large reduction in the scope of the works. What would actually be done and how are the omissions justified?
Clapham Junction station capacity and platform lengthening	56	20	This implies a large reduction in the scope of the works. What would actually be done and how are the omissions justified?
10 car South West suburban railway	110	76	This implies a large reduction in the scope of the works. What would actually be done and how are the omissions justified?
West Anglia outer services 12 car trains	27	21	What reduction in scope does this require?
West Anglia power supply enhancements	3	1	Taken in conjunction with the preceding item, does this imply a limit on the number of 12-car trains which can be run? Would this be a false economy?
Great Eastern power supply enhancements	6	2	What are the implications of this reduction?
Chadwell Heath turnback	4	3	What accounts for so large a difference in the cost estimates for such an apparently straightforward scheme (i.e. the reinstatement of a former turnback siding, for which both the track space and the electrification mast positions remain available)?
Chiltern platform lengthening	9	6	Chiltern has recently completed a platform lengthening programme, so knowledge of costs should be precise. What accounts for so large a difference in the cost estimates?

North London Line capacity enhancement	44	28	Unlike some of the schemes in the list, this has been on the industry's agenda for a long time, and is one with which TfL has been closely involved. What accounts for so large a difference in the cost estimates?
Projects to support moves towards a seven day railway	320	160	Significant progress towards the seven day railway (including weekday late evening improvements) could be made simply by changing NetR management practices, such as "Rules of the Route" which protect possessions every evening or Sunday which are actually used only a few times per month or per quarter. The difference in these cost estimates for investment in new working methods is so great as to require a full explanation.
Development fund for CP5 schemes	240	50	Since ORR's reductions in the cost – and, by extension, the scope – of CP4 schemes implies deferral of much work until CP5, it is not apparent why the budget for developing this during CP4 is reduced rather than increased.
"Policy choices" (resignalling freight only branches; station information and surveillance systems; DC (third-rail) lines regenerative braking)	167	63	What would a reduction on this scale mean for plans for improved passenger information and security? What weight has been given to the fact that regenerative braking is not only energy saving (and therefore contributes to "green" policy objectives) but also that by reducing power consumption it cuts the cost of running the railway?

In addition to the schemes where ORR proposes large reductions in Network Rail's cost forecasts, there are some which ORR has rejected entirely because they are not considered necessary to meet the HLOS objectives.

Those in or affecting the London TravelWatch area, with Network Rail's estimated cost, are:

West Croydon track capacity	£15m
Didcot – Oxford area capacity upgrade	£19m
Hertford loop (including Gordon Hill loops)	£16m

Swindon–Kemble redoubling	£32m
Redhill remodelling	£25m
West Croydon station development	£5m
West Anglia inner 9 car trains	£32m
Fenchurch Street and Chafford Hundred passenger circulation	£2m

ORR’s reasons for rejecting these schemes need to be explained clearly and fully, so that they can be understood and debated by lay stakeholders.

Passengers in the London TravelWatch area would be particularly affected by the deferral or abandonment of the West Croydon, Hertford loop, Redhill and West Anglia schemes.

#### 4.4 *Ability to deliver the capital programme (summary paragraph 52)*

ORR’s argument that slow development of project plans risks delaying the delivery of the programme is understood. However, there is an opposite danger – which has been aired in the technical press – that hasty planning can result in faulty specification of the work, which is only discovered at a late stage and results in overruns in cost or completion times (or both).

#### 4.5 *Contractual and financial incentives (summary paragraphs 69–70)*

Providing a financial incentive for TOCs to co-operate with Network Rail in reducing costs is a worthy objective. However in many instances the easiest way for costs to be reduced is for TOCs to agree to longer possession times (i.e. periods when engineers “take possession” of the line and trains cannot run). We would be concerned if this resulted in the perverse outcome of increasing disruption to passengers when TOCs should be pressing Network Rail to keep possession times to a minimum.

#### 4.6 *HLOS affordability (summary paragraph 76)*

ORR’s draft determination, if confirmed, would result in the HLOS for England and Wales being delivered for £1.3bn less than DfT has budgeted for in the SoFA. If this outcome was to materialise, London TravelWatch would be keenly interested in the use to which the surplus funds thus released were then put. Would it still be made available to Network Rail for additional investment in the railway? Would it be retained by DfT and used to purchase additional passenger benefits? Or would it be retained by the Treasury and diverted to other purposes? From the passengers’ perspective, the third option is likely to be the least attractive.

#### 4.7 *Early start (summary paragraph 90)*

We note with concern that the South West main line 10-car scheme (which we take as a reference to the Windsor lines scheme) is not proposed for inclusion in the early start arrangement. We trust that this will not delay the actual introduction of longer (and more frequent) trains. Overcrowding on this line is acute, and it is likely that existing peak demand is suppressed simply because

up trains are already full before reaching stations such as Putney and Wandsworth Town.

## **5 Equalities and inclusion implications**

- 5.1 Encouragingly, the allocation for DfT's "Access for All" programme of station accessibility enhancements is fully protected in ORR's draft determination. Congestion relief projects will bring particular benefits to those passengers with reduced mobility for whom on-train crowding compounds the challenges they face when travelling by rail.

## **6 Financial implications**

- 6.1 There are no specific financial implications for London TravelWatch arising from this report.

## **7 Legal powers**

- 7.1 Section 252B of the Greater London Authority Act 1999 (as amended by Schedule 6 of the Railways Act 2005) places a duty upon the London TravelWatch (as the London Transport Users Committee) to investigate any matter referred to it by the Office of Rail Regulation.

## **8 Recommendation**

- 8.1 That the draft response set out in section 4 above is approved.



# Summary

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## 2008 periodic review – overview

1. The 2008 periodic review (PR08) is the process whereby we determine the outputs that Network Rail Infrastructure Limited (Network Rail) must deliver, and the levels of access charges paid by train operators for use of its infrastructure, during the five years of control period 4 (CP4), which will run from 1 April 2009 to 31 March 2014.
2. The access charges we are determining in PR08 are the track access charges payable by franchised passenger and open access passenger and freight train operating companies, and the station long term charge payable by users of stations. We are also establishing the level of network grant that the governments in England & Wales and Scotland will pay to Network Rail in lieu of access charges.
3. In this document we set out our draft determinations for the outputs and access charges for consultation. We also explain the judgements we have made on Network Rail's costs and the revenue requirement that underpins the calculations of the access charges and set out the values of the incentive rewards that Network Rail and its industry partners can achieve if they outperform our determinations.
4. Our determinations represent a balanced package that should be considered and judged as a whole. Alongside the outputs and access charges, the other key parts of the package are the obligations of Network Rail's licence, the new financial framework, the contractual and financial incentives, the protections to deal with risk and uncertainty, the structure of charges, and the monitoring and enforcement framework.
5. We expect Network Rail to improve significantly its outputs in CP4. These include continued improvements in safety, train performance and considerable increases in capacity to accommodate 22.5% growth in passenger demand in England & Wales (measured in passenger kilometres), and further passenger demand growth in Scotland. In addition, further growth of 30% in freight traffic is projected by the end of CP4. The company will extend more than 500 platforms to accommodate the approximately 10% increase in vehicles that will be introduced to accommodate the passenger growth.
6. Based on the evidence we have collected and the analysis we have undertaken in PR08 we have established the lowest level of access charges that we consider is reasonable for Network Rail to deliver all the required outputs and ensure that it is not unduly difficult for the company to finance its activities.
7. Network Rail has committed to becoming a world-class company through transforming its processes and developing the skills and competencies of its workforce. We strongly support this objective and welcome many of the initiatives that the company has set out in its plans for CP4. However the evidence we have collected and the analysis we have undertaken in PR08 has convinced us that Network Rail must make bigger and faster improvements than it has proposed.
8. We consider that the outputs can be delivered at significantly lower cost than Network Rail has projected and we have factored challenging, but achievable, assumptions for efficiency improvement into our calculations of access charges. The judgements we have made on the scope for efficiency improvement in CP4 should not lead the company to compromise health and safety or create risks that are not capable of being managed. Indeed, in our view, there is no conflict between safety and efficiency, and a world-class company will deliver high performance in all areas of its operations.
9. The efficiency improvements we have factored into our calculations of access charges provide the opportunity for Network Rail, working with its industry partners, to outperform our assumptions. If they do they will benefit financially and reputationally. The lower levels of expenditure will translate into lower access charges in the following control period.
10. As part of PR08, we have strengthened the incentives acting on Network Rail and its partners, which should encourage them to strive to outperform our determinations. The most important change to the financial incentives on Network Rail is the capping of the financial indemnity that government provides Network Rail (guaranteeing all of its debts). We support Network Rail's proposals to raise all new debt without the government guarantee. We have confirmed that, in our view, this represents value for money, and consider that it should generate an additional spur on the company to reduce costs, due to the increased scrutiny that this will bring from ratings agencies and actual and prospective lenders to Network Rail and the need for Network Rail to maintain a strong investment grade credit rating if it is to raise the volume of debt required in CP4.

11. We consider that our draft determinations should allow our overarching objective for PR08 to be achieved in CP4, namely to ensure an outcome that secures value for money for users and taxpayers, by determining the level of Network Rail's access charges and outputs in a way that balances the interests of all parties. In terms of outcomes from the railway, if this objective is achieved then it should deliver a railway that is safer than ever before, is more reliable than ever before, whilst carrying significantly more passengers and freight, at a cost that represents ever better value for money for users and taxpayers.

## Background and approach

12. The legal procedure for conducting an access charges review is set out in schedule 4A to the Railways Act 1993. The central element of the process is that the Secretary of State for Transport and Scottish Ministers have separately to provide us with information about what they want to be achieved by railway activities during the control period and the public financial resources that are, or are likely to be, available for the achievement of those activities. They did this by producing 'high-level output specifications' (HLOSs), setting out what they want to be achieved, and 'statements on the public financial resources available' (SoFAs), which they submitted to us in July 2007.<sup>2</sup>
13. We have taken account of the HLOSs and SoFAs in making our determinations. We have also taken account of the reasonable requirements of all of Network Rail's customers and other funders, including open access passenger and freight train operators, to the extent these are not covered by the government specifications.
14. Our determinations are the result of nearly three years work since we started PR08 in August 2005 when we published our initial consultation document. There has been a significant amount of work undertaken across the industry over this time, involving a lot of detailed analysis and debate. From the start of the review we committed to conducting it transparently, exposing the issues and consulting on and explaining all of our key decisions. We are grateful for all the contributions made by stakeholders throughout PR08.
15. We set out many of the general principles of the framework we use to set outputs and access charges in our advice to ministers and

framework for setting access charges in February 2007, with further principles confirmed in our update on the framework for setting outputs and access charges in February 2008.

16. Our determination of the revenue that we consider Network Rail needs to run its business follows the standard 'building block' approach used by economic regulators, with a key feature being that renewals and enhancement expenditure is added to the regulatory asset base (RAB) and remunerated through the amortisation allowance and an allowed return on the RAB.
17. This revenue is recovered by track and station access charges, grants paid directly to Network Rail by government (in lieu of access charges) and income received from other sources (such as property rental). Whilst Network Rail is a GB-wide company, and finances itself on this basis we have established separate calculations for England & Wales and Scotland, in the context of the separate responsibilities that the Secretary of State and Scottish Ministers have for setting the strategy for, and funding, the railways.
18. Whilst we have made our determinations based on our assessment of the overall level of efficient expenditure we consider the company needs to undertake in CP4, we do not decide the detailed level, or pattern, of expenditure or activity that Network Rail may ultimately need to undertake to deliver the required outputs. It is for the company to define and deliver its work programme consistent with its asset policies, actual asset condition, requirements of the network, and its licence, legal and contractual obligations.

## Network Rail's progress and CP4 challenges and opportunities

19. When Network Rail took over ownership of the rail infrastructure in 2002 from Railtrack (in administration), it faced a network where costs had spiralled and delays were far above the levels of a few years before. Since then the company has achieved a great deal in rectifying the problems it inherited. It has made good progress in improving performance, understanding better its assets and getting costs under control.
20. Looking ahead, the needs of the railway and its users present a fresh set of challenges. Further progress to reduce costs and improve performance towards 'world class' levels must accompany delivery of a major programme of enhancements to increase capacity, using less intrusive means of carrying out engineering work to progress towards a 'seven day railway', and increasing responsiveness to the needs of its customers.

<sup>2</sup> The HLOS published by the DfT may be accessed at <http://www.dft.gov.uk/about/strategy/whitepapers/whitepapercm7176/> and the HLOS published by Transport Scotland may be accessed at <http://www.transportscotland.gov.uk/files/documents/rail/HLOS-July-2007.pdf>.

21. We consider that all this is achievable but it will require Network Rail to strengthen its management, to develop the skills and competencies of its people, to manage safely new ways of working, including the use of new technologies, to improve the long term management of its assets and to develop mutually beneficial and sustainable relationships with its customers and suppliers.

## Network Rail’s strategic business plan

22. At the end of October 2007 Network Rail published its strategic business plan (SBP), which was the company’s principal submission to us in PR08. The SBP contains Network Rail’s costed proposals for operating, maintaining, renewing and enhancing the rail infrastructure in CP4, along with assumptions on the financial framework. Network Rail has produced the SBP in conjunction with its industry partners and it has made assumptions about the respective contributions of Network Rail and franchised train operators to delivering the requirements of the two HLOSs, as well as the reasonable requirements of all of its customers and funders. Following our initial review of the SBP, and response to the company, Network Rail published an update of its SBP at the beginning of April 2008. The SBP and the update have provided the basis for our review and challenge of the company’s plans to underpin our determinations.

## Outputs

23. A core part of PR08 has involved reviewing and improving the scope and definition of the outputs Network Rail needs to deliver. In CP4 we require an increased level of disaggregation of outputs across the network in order to strengthen Network Rail’s accountability to its customers.

24. In CP4 Network Rail’s output obligations will include:
- top-level regulated output obligations which are specified in this determination; and
  - disaggregated output obligations which will be fully defined in Network Rail’s CP4 delivery plan, and secured through their status as being reasonable requirements. Some of these are already firm but others will need to be worked up by Network Rail and its stakeholders over the course of 2008.

25. The outputs we have established for CP4 are summarised in table 1.

**Table 1: Summary of CP4 outputs**

Output	Description
Safety	Network Rail must continue to meet its health and safety obligations. In addition, the Secretary of State for Transport has specified a 3% reduction in the risk of death or injury to passengers and rail workers from accidents on the railway for the whole of the British mainline network to be achieved between 2008-09 and 2013-14. Network Rail will need to work together with its partners to deliver the 3% target.
Train service performance	We expect Network Rail to deliver, by 2013-14, the improvements in the public performance measure (PPM) and the reductions in significant lateness by sector as set out in the HLOS for England & Wales; and PPM as set out in the HLOS for Scotland. We are setting trajectories for each year of CP4 for these measures.  We are also setting maximum levels, for each year, for the number of passenger train delay minutes for which Network Rail is held responsible in England & Wales and in Scotland.  We are setting similar maxima for the freight train delay minutes for which Network Rail is held accountable across the network as a whole (normalised for the volume of freight traffic).  Further detail is provided in tables 2 - 4
Capacity	We expect Network Rail to deliver projects specified in the HLOSs for both England & Wales, and Scotland. We also expect it to deliver other projects which will provide the infrastructure required to meet the disaggregated England & Wales capacity specifications.
Network capability	Baseline network capability will be as defined at 1 April 2009.
Station condition	The average condition of each category of station should at least be maintained (before taking into account improvements funded through the national stations improvement programme (NSIP)).
Network availability	We expect Network Rail to meet targets for limiting the disruption it causes to passenger and freight services as a result of engineering works, including specific improvements to reflect the benefits of full delivery of the seven-day railway concept on priority routes.
Customer satisfaction	Following the decision by Network Rail to include customer satisfaction in its management incentive plan, we will not set a regulated target in this area.

26. The required trajectories for train service performance are shown in tables 2 – 4. These all have the status of top-level regulated outputs. The CP4 targets required by the HLOSs are in shaded cells in **bold**.

**Table 2: Public performance measure for passenger operators (moving annual average)**

	2008-09 (%)	CP4				
		2009-10 (%)	2010-11 (%)	2011-12 (%)	2012-13 (%)	2013-14 (%)
<b>England &amp; Wales (by sector)</b>						
Long distance	87.6	88.6	89.8	90.9	91.5	<b>92.0</b>
London & South East	91.2	91.5	92.0	92.4	92.7	<b>93.0</b>
Regional	90.1	90.5	91.0	91.5	91.9	<b>92.0</b>
Total	90.6	91.0	91.5	92.0	92.3	92.6
<b>Scotland</b>						
First ScotRail	90.6	90.9	91.3	91.7	91.9	<b>92.0</b>

**Table 3: Significant lateness and cancellations (England & Wales only)**

	% of services affected						Improvement from 2006-07 (%)
	2008-09	CP4					
		2009-10	2010-11	2011-12	2012-13	2013-14	
Long distance	5.3	4.9	4.5	4.2	4.0	3.8	<b>36.0</b>
London & South East	2.3	2.3	2.2	2.1	2.0	2.0	<b>21.0</b>
Regional	2.7	2.6	2.5	2.4	2.3	2.2	<b>27.0</b>

**Table 4: Network Rail delay minutes for passenger and freight services**

	2008-09	CP4				
		2009-10	2010-11	2011-12	2012-13	2013-14
<b>Passenger services (maximum delay minutes)</b>						
England & Wales	6,500,000	6,270,000	5,790,000	5,430,000	5,190,000	4,980,000
Scotland (First ScotRail)	455,000	436,000	410,000	391,000	386,000	382,000
<b>Freight services (delay minutes per 100 train km)</b>						
Total	3.92	3.68	3.41	3.18	3.05	2.94

## Efficient expenditure

27. We have collected a wide range of evidence and carried out a thorough and detailed assessment of Network Rail's proposals for its operating, maintenance, renewals and enhancement expenditure to inform our assessment of the level of activity we consider Network Rail needs to undertake and the scope for efficiency improvement.

### *Maintenance and renewals*

28. We have assessed Network Rail's projections for CP4 of £12.8bn for renewals and £4.9bn for

maintenance (before adjustment for efficiency improvement). This proposed expenditure covers the upkeep through day-to-day maintenance and renewals of the network's physical infrastructure. We have reviewed the justification for the activity levels that drive this expenditure, including:

- assessing each of the policies by which the assets will be managed;
- understanding how the activity levels and the planned outputs are linked, including the extent to which Network Rail has made the case for increased expenditure where it

argues that existing levels are insufficient to sustain the network in the long term;

- considering the deliverability of the planned activity volumes; and
  - conducting 'on-the-ground' sampling of certain activities planned for the early part of CP4 to test whether or not the decision making processes appear to be generating robust work plans that are clearly driven by the asset policies.
29. Our views on the robustness of the activity levels Network Rail proposed in its SBP fall into four broad categories:
- track, signalling, telecoms and plant & machinery renewals (representing in total 63% of total renewals expenditure): Network Rail's asset policies are clear and its modelling of CP4 renewals activities is relatively robust. The proposed activity levels are in line with the current level of activity. In some cases we have made relatively minor volume adjustments based upon evidence that there is a small degree of over-scoping of renewal plans;
  - electrification and operational property (together representing 18% of total renewals expenditure): The asset policies are also clear and we consider that the renewals volumes have been well modelled, but the proposed CP4 volumes are significantly higher than current activity levels. We have made relatively minor adjustments to volumes in these areas, although Network Rail made a major reduction in proposed operational property expenditure between the SBP and its updated following our questioning of the original figures;
  - civil engineering expenditure plans (representing 15% of total renewals expenditure): Network Rail has proposed significant increases in renewals activity but has failed to substantiate its case. We have therefore adopted substantially lower figures which in most cases represent activity at the level being delivered in the final part of CP3;<sup>3</sup> and
  - maintenance activity levels: we consider that, for all asset categories, Network Rail's proposals are reasonable.
30. The result of our assessment is that we have reduced the provision for total CP4 renewals from £12.8bn (in the SBP update) to £11.9bn (7%) before the application of efficiency.

#### *Operating expenditure*

31. Network Rail has proposed controllable opex of £3.8bn and non-controllable opex of £1.8bn in CP4. We have largely accepted Network Rail's projections for non-controllable opex. On controllable opex, the main area of our adjustment comes through our efficiency adjustments discussed further below. We also consider that expenditure on insurance can be lower than Network Rail has proposed.

#### *Operating, maintenance and renewals efficiency*

32. Across OM&R, Network Rail has proposed efficiency improvements in CP4 of 17.6% before adjustment for increase in the prices of its labour and material inputs above general inflation. After adjusting for input prices, its proposed overall CP4 efficiencies are 14% for maintenance and renewals and 7% for operating expenditure.
33. We have reviewed Network Rail's proposed efficiency initiatives for CP4 and we have undertaken a considerable amount of further work to assess the scope for efficiency improvement. We have considered very carefully the results from all the evidence available to us in order to inform our determinations.
34. Whilst we acknowledge the transparent approach that Network Rail has undertaken to develop its proposals for CP4, ultimately we consider that the company significantly understates the scope for efficiency improvement.
35. Besides our review of Network Rail's plans, key work we have undertaken to inform our judgements is:
- maintenance and renewals: working with Network Rail, we have conducted econometric analysis of the International Union of Railways (UIC) 'lasting infrastructure cost benchmarking' (LICB) dataset, which comprises M&R expenditure and other data for 13 European rail infrastructure managers, including Network Rail, for the eleven years to 2006. This analysis has generated robust results that show, re-based to the end of CP3, Network Rail is around 35% less efficient in maintenance and renewals compared to the upper quartile of the other infrastructure managers. We have undertaken further engineering based work to understand this efficiency gap, including a range of visits to rail infrastructure managers in other countries, and assessment of technologies and working methods used elsewhere in Europe that could be implemented by Network Rail to improve efficiency; and

<sup>3</sup> Control period 3 runs from 1 April 2004 to 31 March 2009.

- operating expenditure: Oxera has conducted a study for us on the scope for efficiency improvements in Network Rail's operating expenditure, by looking at efficiency performance in other regulated utilities. Considering the results of this work in the light of our own assessment of trends in rail operating expenditure and other detailed work on opex efficiency also shows a gap of around 35% at the end of CP3.

*The rate of improvement in OM&R efficiency in CP4*

- In making our judgements on efficiency we have considered the amount of improvement that Network Rail can make in CP4 and the speed at which it should be able to achieve this, as a core part of our overall package. We recognise the many and varied challenges that the company faces in CP4 and the improvements it will need to make in train performance, safety and capacity, as well as in making further cost savings. To this end, we have decided to profile further significant efficiency improvements over ten years. We recognise that many of the further cost savings that the company needs to make to address the full efficiency gap it faces may necessitate fundamental change to the way the company operates and implementation of new technologies and working methods. Given the circumstances Network Rail faces in CP4 it is right to give it sufficient time to achieve this.
- We have considered the profile of efficiency improvement over this time horizon. We have examined the rate of change that other regulated industries have achieved and have considered some of the specific changes Network Rail could make to reduce its costs during CP4. We have taken into account Network Rail's own aspirations to achieve world-class status. Consequently, we consider that Network Rail should be able to catch-up two thirds of the efficiency gap during CP4 (23% in OM&R) with the remaining third in CP5 (though we would expect to review the scope for further efficiency improvement in CP5 in more detail at the next periodic review).
- In order to determine the overall level of efficiency improvement in CP4 we have also taken into account the expected ongoing productivity improvements ('frontier-shift') that even the best performing companies would be expected to achieve, above that reflected in general inflation. Across OM&R we consider that this frontier-shift is 3% in CP4 as a whole.
- We have also made allowance for real increases in Network Rail's input prices above general inflation. We have done this through making direct adjustments to our efficiency assumptions based on the study Network Rail undertook. We carefully reviewed Network Rail's submission and although we have some specific concerns,

taken as a whole it is reasonable. We will reduce our 'gross' efficiency assumptions by 4% for maintenance and renewals, and 8% for controllable opex.

- Overall, taking into account catch-up of the efficiency gap, frontier-shift and input prices, we consider that Network Rail should be able to make efficiency improvements in CP4 of 5% per annum for maintenance and renewals, and 3.5% per annum for controllable opex. In cumulative terms, this gives overall efficiency improvements by the end of CP4 of 23% for maintenance and renewals, and 16% for controllable opex.

*Enhancement expenditure*

- Network Rail's SBP update proposes some £9bn of enhancement expenditure in CP4 to be funded through our periodic review. This work is a response to the requirements of the two HLOSs, other customer and funder reasonable requirement and the demand for a growing and sustainable railway. The expenditure is split between:
  - England & Wales: expenditure of £8.6bn in CP4 to deliver the HLOS, including schemes ranging from more than 500 platform extensions to deliver the capacity specification, investment to deliver the performance specification, specific major projects (Birmingham New Street, Reading, Thameslink) and other investment, including work to take forward implementation of the seven day railway concept; and
  - Scotland: expenditure of £448m on projects specified by Transport Scotland in its HLOS (Airdrie to Bathgate and the Glasgow Airport Rail Link) and development funding for further enhancement schemes.
- We have undertaken a detailed review of Network Rail's enhancement proposals. In doing this we have examined both the scope of the projects Network Rail has proposed and the efficiency of the work.
- We reviewed Network Rail's proposals to deliver the capacity and performance specifications in the England & Wales HLOS. Many of the proposals to increase capacity are at an early stage of development. We have concluded that while Network Rail's proposals were generally appropriate and reasonable they can be delivered at a lower cost. For the HLOS performance specification Network Rail made a case for additional funding to deliver the specification. We consider that the need was smaller than Network Rail has proposed. We have included a provision for capital expenditure of £160m for Network Rail to take forward implementation of the seven-day railway concept to provide for greater levels of network availability for passengers and freight.

44. On the DfT projects specified in the HLOS with capped funding for the major named schemes (Birmingham New Street, Reading, Thameslink) we have provided for the same funding as proposed in the HLOS which we found to be reasonable given the scope of the work.
45. We have agreed a structure for delivery of the national stations improvement programme, a ring-fenced fund to provide station improvements up to the value of £156m in CP4.
46. Network Rail has set out initial proposals for development of the strategic freight network (SFN). We have reviewed the company's proposals and we require it to develop more detailed plans with the industry, up to a maximum of £208m in CP4.
47. In Scotland, we have approved funding for Airdrie to Bathgate at a broadly similar level to that proposed by Network Rail, although we consider that Glasgow Airport rail link could be delivered at a lower cost than proposed by Network Rail.
48. Overall we consider that the enhancement programme funded through PR08 can be delivered for £7.5bn, 17% less than Network Rail has proposed.
49. Achieving the benefits of this programme also relies on government and train operators agreeing on new train orders, and a complex set of cascades of existing rolling stock around the country. The new trains have to be built and industry accepted procedures followed. The whole industry will have a role to play.

## Network Rail's ability to deliver the CP4 capital programme

50. In CP4, Network Rail faces a major challenge to deliver the enhancement programme, which is three times as large as in CP3, as well as carrying out its core asset renewals work. The company considers it can deliver its work programme.
51. While Network Rail has made considerable progress in improving its capabilities (including the skills and competencies of its people and the processes it uses to make decisions and progress capital expenditure) it recognises that it needs to develop these further to underpin delivery its CP4 programme. We support Network Rail's intention to bring together its many detailed initiatives into an overarching capability development programme with high-level leadership and resourcing.
52. We will be monitoring closely the progress of its enhancement projects through the stages of scheme development, because slow project development risks delaying the programme.

## Safety management

53. We have sought to ensure that our overall package of determinations will challenge and incentivise Network Rail to become more efficient in running its business, whilst continuing to meet its health and safety obligations.
54. We have examined Network Rail's plan to deliver health and safety in CP4. In particular we looked at how Network Rail has identified any changes in risk arising from the organisational and operational changes it needs to make to deliver its outputs and its plans for managing these changes in risk.
55. We consider that Network Rail should be able to deliver its required outputs in CP4 in compliance with its statutory obligations under the Health and Safety at Work Act 1974 and associated legislation. However, delivery of the determinations presents challenges for Network Rail, particularly in light of the changes in efficiency, capacity and performance being asked of the railway during CP4. These will require Network Rail to undertake a number of major, and in some cases novel, initiatives. This will require rigorous risk assessment and management by Network Rail. We will build into our inspection plans for CP4 actions that will enable us adequately to inspect those areas of change where consider the risks of safe delivery by Network Rail are highest. Through this inspection activity we will be able to identify any weaknesses in Network Rail's actions and, if weaknesses are found, take action.
56. We have assessed the industry's plans to meet the HLOS safety metric in CP4, specified by the Secretary of State for GB as whole, of a 3% reduction in the risk of death or injury to passengers and rail workers. We consider that the specification can be achieved.

## Efficient expenditure in CP4

57. Taking into account our assessment of Network Rail's SBP and SBP update, our judgements on efficiency, and our assessments of deliverability and safety management, table 5 summarises our assumptions on the level of expenditure that we consider Network Rail needs to undertake in CP4 in order to deliver its required outputs. Overall we consider that Network Rail overstated its requirements in its plans, and can achieve its outputs through expenditure of £27.8bn, around £3.4bn (or 11%) less than it proposed in its plan.



**Table 5: Summary of our CP4 efficient expenditure assumptions**

£m (2006-07 prices)	Network Rail's SBP/SBP update	Our determination	Difference
Controllable opex	3,776	3,392	(10%)
Non-controllable opex	1,796	1,776	(1%)
Maintenance	4,889	4,584	(6%)
Renewals	11,658	10,504	(10%)
Enhancements	9,029	7,507	(17%)
<b>Total</b>	<b>31,148</b>	<b>27,763</b>	<b>(11%)</b>

## Financial and risk framework

58. We are making a number of improvements to the financial framework for CP4, which:
- will allow Network Rail to finance its activities;
  - provide incentives to the company to control costs and outperform our determinations; and
  - provide protections to the company to deal with risk and uncertainty.

### Unsupported debt

59. We support Network Rail's intention that the use of the financial indemnity (guarantee) the government provides to Network Rail of all its debt will be restricted from the start of CP4 so that it can only be used to refinance existing debt. This means that Network Rail will need to raise debt on an unsupported basis for the first time from early in CP4. This will increase scrutiny from ratings agencies and actual and prospective lenders to Network Rail and hence improve the financial disciplines bearing on the company. Network Rail will need to maintain a strong investment grade credit rating in order to raise about £10bn of new debt in CP4.
60. Those financial institutions lending to Network Rail without the benefit of a government guarantee will have their capital at risk. Government has been clear that, in the unlikely event that Network Rail did face severe financial difficulties, the assumption that lenders of unsupported debt should be making is that government will not rescue those lenders to protect its own position in relation to the supported debt.
61. Network Rail will be required to pay to DfT, as provider of the financial indemnity, a fee that

reflects the value of the credit quality enhancement received as a result of the guarantee. We have set the level for the fee for the guaranteed debt at 0.8% per annum, which provides for payment to government of £880m (in nominal terms) over CP4.

### Allowed return

62. We will provide Network Rail with an allowed return that reflects its risk adjusted cost of capital. Based on a recent study conducted for us by CEPA, which takes into account the recent changes in credit market conditions, we consider the appropriate cost of capital (in real 'vanilla' terms) for Network Rail to be 4.7%.<sup>4</sup>
63. Part of the allowed return will be required to meet Network Rail's financing costs (including the financial indemnity fee). The remainder will be split between a risk buffer and a ring-fenced investment fund.

### Managing risk and uncertainty

64. Inevitably, in determining outputs and access charges for the five years of CP4, there are uncertainties and risks that Network Rail's actual costs of delivering the required outputs (or revenues it will earn) will be different to those we have assumed in our determinations.
65. We have taken account of these risks and uncertainties in establishing the overall package for CP4. We have ensured an appropriate allocation of risks that we expect Network Rail and its customers and funders to bear. Key elements of the package are:
- as part of the allowed return, the risk buffer, of £1bn over CP4, enables Network Rail to manage business risk and 'normal' fluctuations in cash flow. To the extent that Network Rail does not need it for these reasons it will have discretion over its use;
  - the ring-fenced investment fund, of around £1.3bn over CP4, will be used to deliver capital expenditure that is required to deliver the HLOSs, except in cases of significant underperformance by Network Rail. Under defined circumstances, Network Rail will have full discretion to defer capital expenditure up to the value of £1.3bn (and hence outputs) to relieve financial pressures.
  - our approach to rolling forward the RAB will be based on adding actual efficient capex to the RAB. This means that if Network Rail spends more than assumed in our determinations that this expenditure would be logged-up and added to the RAB at the

<sup>4</sup> A 'vanilla' return combines a pre-tax cost of debt and a post-tax cost of equity.



start of CP5 if the additional expenditure is justified and incurred efficiently;

- we have made specific allowances in the funding of the enhancement programme to provide for particular risks over and above those covered by the general risk buffer, and the Thameslink project (the largest enhancement scheme, with estimated expenditure of £2.7bn in CP4) is subject to a specific protocol between Network Rail and government, which we have approved, that insulates Network Rail from major cost shocks; and
  - Network Rail's access charges and the network grant payments will be rebased by the retail price index (RPI) each year. This protects the company against general inflation risk.
66. Ultimately if the various protection measures are exhausted and the company breaches a key financial trigger (a value of 1.35x on average over a three year period for the adjusted interest cover ratio (AICR)) then there is the option for us to undertake an interim review of Network Rail's outputs and access charges. This means that Network Rail's customers and funders bear the risks of changes to access charges and/or outputs as a result of this.

#### Amortisation

67. We have set the amortisation allowance based on long-run steady-state renewals expenditure (with a further small addition to amortise the non-capex additions we are making to the RAB at the start of CP4). Our overall amortisation allowance for CP4 is £7.2bn, £1.5bn less than that which Network Rail assumed in its SBP update, where Network Rail just adopted the upper bound of the possible range for amortisation that we previously published.

### Revenue requirement

68. Based on our assessment of efficient expenditure, and the parameters we have established for the financial framework, table 6 shows our determination of the revenue requirement that Network Rail needs in CP4. We consider that Network Rail has overstated its revenue requirement for CP4 and that the company requires £2.7bn (9%) less than the £29.1bn that it set out in its SBP update.

**Table 6: Our determination of Network Rail's CP4 revenue requirement (Great Britain)**

£m (2006-07 prices)	2009-10	2010-11	2011-12	2012-13	2013-14	Total	SBP update
Maintenance	1,020	961	910	868	825	4,584	4,989
Controllable opex	728	702	678	654	631	3,392	3,777
Non-controllable opex	328	349	360	367	372	1,776	1,796
Schedule 4 and 8	212	196	192	164	159	924	927
Allowed return	1,532	1,650	1,748	1,821	1,881	8,633	8,856
Amortisation	1,446	1,446	1,446	1,446	1,446	7,230	8,690
Tax	-	-	-	-	-	-	85
<b>Gross revenue requirement</b>	<b>5,267</b>	<b>5,304</b>	<b>5,334</b>	<b>5,320</b>	<b>5,314</b>	<b>26,539</b>	<b>29,119</b>

### Contractual and financial incentives

69. An important part of PR08 has been the review of the incentives that Network Rail and the industry face to work together and improve whole industry outcomes.
70. We are implementing an efficiency benefit-sharing mechanism between Network Rail and train operators, on the basis of the proposals

made by the industry to us. If Network Rail can deliver all of its outputs and obligations for less than we have determined then it will share 25% of this 'outperformance' with train operators, initially at the national level (separately for England & Wales and Scotland). The payments will be divided between operators on the basis of their relative share of variable usage charge payments and will be made following our annual assessment of Network Rail's performance. We will review the mechanism after two years.

71. We are retaining a volume incentive in CP4, to incentivise Network Rail to respond to demand levels greater than those assumed in the SBP (based on the HLOSs).
72. We have also implemented a rolling capex incentive mechanism, to equalise the incentive that Network Rail has to make efficiency savings, across each year of the control period.
73. Following cross-industry working we are making improvements to the schedule 4 and 8 possessions and performance regimes, including updated values to provide correct price signals to Network Rail and train operators.
75. Tables 7 and 8 summarise our assessment of the affordability calculations.
76. Both HLOSs are affordable (i.e. the SoFAs are adequate). The England & Wales HLOS shows surpluses in each year, with £1.3bn surplus over CP4 as a whole.
77. The Scottish HLOS is affordable over CP4 as a whole (with £80m surplus) but there are deficits in the final three years of CP4, though this does not alter our decision that the Scottish HLOS is affordable. We will discuss with Transport Scotland and Network Rail the possible profiling of Network Rail's revenue requirement for Scotland and/or other calls on the SoFA.

## HLOS affordability

74. We have examined the whole industry costs to the two governments of delivering the HLOSs, which includes franchise support as well as the revenue required by Network Rail (less income from third parties, such as open access passenger and freight operators and property rental). We have carried out these assessments so that we could establish whether the SoFAs of each government are adequate to secure the achievement of the HLOSs.
78. The England & Wales SoFA was defined in nominal terms based on an inflation (RPI) forecast of 2.75% per annum. We have converted the SoFA into 2006-07 prices using this forecast. We have developed our own RPI forecast which is higher, based on more up-to-date economic forecasts. We have also tested the affordability of this HLOS against our RPI forecast and it remains affordable though the surplus reduces to £0.8bn over CP4. The Scottish SoFA was stated in real terms.

**Table 7: Results of the HLOS affordability calculation for CP4 – England & Wales**

£m (2006-07 prices)	2009-10	2010-11	2011-12	2012-13	2013-14	Total
SoFA	2,888	2,700	2,706	2,567	2,444	13,302
Less franchise support payments*	(1,496)	(1,259)	(988)	(755)	(473)	(4,971)
Add back franchise payments to Network Rail (as assumed in the SoFA)	2,863	2,879	2,887	2,890	2,895	14,414
<b>Funds available for Network Rail</b>	<b>4,256</b>	<b>4,320</b>	<b>4,605</b>	<b>4,703</b>	<b>4,866</b>	<b>22,749</b>
Less Network Rail revenue requirement (net income from sources other than franchised train operator access charges or network grant)	4,248	4,296	4,318	4,318	4,312	21,492
<b>Surplus/(deficit)</b>	<b>8</b>	<b>24</b>	<b>286</b>	<b>385</b>	<b>554</b>	<b>1,257</b>

\* Includes our estimate of additional depots costs (which is assumed to be capitalised) and rolling stock.

**Table 8: Results of the affordability calculation for CP4 – Scotland**

£m (2006-07 prices)	2009-10	2010-11	2011-12	2012-13	2013-14	Total
SoFA	759	826	676	668	673	3,600
Less franchise support payments	(321)	(331)	(359)	(360)	(367)	(1,738)
Add back franchise payments to Network Rail (as assumed in the SoFA)	150	150	150	150	150	750
<b>Funds available for Network Rail</b>	<b>588</b>	<b>645</b>	<b>467</b>	<b>458</b>	<b>456</b>	<b>2,612</b>
Less Network Rail revenue requirement (net income from sources other than franchised train operator access charges or network grant)	500	508	511	510	505	2,534
<b>Surplus/(deficit)</b>	<b>87</b>	<b>137</b>	<b>(44)</b>	<b>(52)</b>	<b>(49)</b>	<b>78</b>

## Access charges and network grant

79. Network Rail recovers its revenue requirement through track access charges paid by franchised passenger and open access passenger and freight operating companies, station access charges paid by station users, network grant paid by government (in lieu of track access charges) and other sources of income.
80. We will allow continuation of network grants in CP4 as part of the funding mix with access charges, with the level of grants being fixed for the duration of CP4 and established by reference to government accounting rules.
81. We are largely retaining the existing structure of charges but changing the levels. We are not implementing any route or geographical based charges in CP4. We have reviewed Network Rail's proposals for the various individual access charges. In particular, the level of all the variable usage charges paid by passenger train operators will reduce overall by around 35% (excluding the impact of growth) due to improved calculation of variable usage costs and the effect of our efficiency assumption. As we have set out previously in PR08, we are establishing a new charge for certain traffic on freight only lines.
82. Excluding the impact of growth, but including the effect of the new charge for coal for the electricity generation and spent nuclear fuel traffic, overall charges in CP4 for freight operators will fall by around 35% compared to current levels.
83. Table 9 shows the sources of income in CP4 (at Great Britain level) to recover the gross revenue requirement.

## Monitoring and enforcement

84. The continuing development and maturing both of the privatised rail industry and of Network Rail as an organisation would itself call for us to review our approach to monitoring as we approach a new control period. This need is made greater by the significant change in the nature of the obligations Network Rail is being asked to take on. Alongside further improvements which will take safety and performance to their highest levels on record there will be a major programme of enhancement works to increase network capacity and capability.
85. Our monitoring will focus primarily on the following issues:
- whether the industry is on course to deliver the HLOS safety requirement;
  - whether the top level regulated outputs are being delivered;
  - whether the programme of works to deliver the capacity specifications of the two HLOSs is on course to deliver the required outputs;
  - whether Network Rail is managing its assets in line with the policies and activity programmes on which this determination is based;
  - whether Network Rail is achieving the expected efficiencies in operating, maintenance, renewal and enhancement; and
  - whether Network Rail is operating within the financial boundaries set by our determination.

**Table 9: Sources of Network Rail's income in CP4 (Great Britain)**

£m (2006-07 prices)	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Franchised passenger train operators – total variable charges	405	410	420	427	432	2,095
Franchised passenger train operators – fixed charges	643	681	677	941	1,146	4,088
Income from freight operators	66	69	70	72	74	350
Income from open access operators	19	19	19	19	19	94
Station long term charge income	134	129	125	121	119	629
Schedule 4 and 8 income	212	196	192	164	159	924
Other income (inc property rental, property sales and depots income)	391	386	393	412	416	1,999
Network grant	3,396	3,414	3,437	3,164	2,949	16,360
<b>Total income</b>	<b>5,267</b>	<b>5,304</b>	<b>5,334</b>	<b>5,320</b>	<b>5,314</b>	<b>26,539</b>

Rounded to the nearest million.

86. We will carry out a certain amount of monitoring of delivery of other local (disaggregated) customer reasonable requirements (CRRs) but this will not extend to every CRR defined by the CP4 delivery plan. We will expect operators and other stakeholders to draw matters to our notice if they wish them to receive regulatory attention.
87. If Network Rail is failing, or is likely to fail, to meet one or more of its obligations derived from this determination we will consider whether to take enforcement action.
88. We will continue to publish full assessments of Network Rail's performance annually, and shorter focussed assessments in the Network Rail Monitor. We will review the form and content of both publications from time to time to ensure that they are achieving our objective of communicating these matters effectively.

## **Early start**

89. The early start programme provides early decisions, ahead of our final determinations, on funding for schemes that Network Rail would like to progress in the first year of CP4, to ensure that there is no hiatus in developing the scheme.
90. We are confirming approval of further schemes for the early start programme, following our approval of certain schemes in February 2008. We confirm the Reading, Birmingham New Street, Kings Cross, Bletchley to Milton Keynes and the North London Line can proceed under the early start programme. We are not accepting the South-West mainline 10-car or the Network Rail Discretionary Fund schemes for early start.

## **Consultation**

91. Following consideration of responses to our proposals in this document we will publish our final determinations on outputs and the overall level of access charges on 30 October 2008. The final audited levels of the detailed individual access charges and associated price lists on 18 December 2008.

# ***Annex D: ORR assessment of enhancement schemes in Network Rail's SBP update***

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This annex summarises our review of the enhancement schemes proposed in Network Rail's SBP update. The table is structured as follows:

## **England and Wales**

### **a) Funding included within our PR08 determination**

- **HLOS baseline and specified schemes:** Network Rail is funded to deliver these defined schemes.
- **Schemes to deliver the passenger kms specification and the HLOS London capacity specification:** Network Rail is funded to deliver these specific schemes which contribute to both the passenger kms by route specification and the London capacity specification.
- **Further schemes required to deliver HLOS capacity specifications for London and other specified urban areas:** We have determined the efficient level of funding based on these schemes, but Network Rail has the flexibility to decide which schemes should be taken forward (providing it delivers the capacity specification) and it must set out its preferred approach in its CP4 delivery plan.
- **HLOS Performance fund:** Network Rail is provided with this fund to deliver the PPM improvements and reductions in significant lateness required by the HLOS.
- **Other schemes:** schemes which are needed to give full effect to the HLOS in its statutory and regulatory context, and which meet the criteria set out in Chapter 9 (for example, that projects are value for money). These include schemes, for example, which Network Rail had proposed for journey time improvements.

### **b) Funding not included within our PR08 determination**

- Schemes which Network Rail proposed but which, in our assessment, are not needed to deliver the explicit requirements of the HLOS and are not justified on other criteria.

## **Scotland**

**Funding included within our PR08 determination**

- **Scotland HLOS** : Network Rail is funded for these schemes specified in the Scotland HLOS.
- **Other Scotland schemes**: other schemes proposed by Network Rail. These were: station information and surveillance systems and GSM-R coverage of freight only lines. Funding is provided for GSM-R works.

**Table A: Our assessment of enhancement schemes in Network Rail’s SBP update (£m 2006-07 prices)**

Route	Scheme name	Network Rail SBP	Our assessment
<b>England and Wales</b>			
<b>a) Funding included within our PR08 determination</b>			
<b>HLOS baseline schemes</b>			
	Access for all	206	206
	King's Cross	175	175
	West Coast: Stafford/ Colwich remodelling	483	364
	West Coast: Bletchley/ Milton Keynes	114	107
	West Coast power supply upgrade	272	235
<b>Sub total baseline schemes</b>		<b>1,251</b>	<b>1,087</b>
<b>HLOS Specified schemes</b>			
	Thameslink	2,700	2,700
	Intercity express programme	260	260
	Network rail discretionary fund	234	234
	National station improvement programme	156	156
	Strategic freight network	208	208
	Reading area redevelopment	456	441
	Birmingham New Street gateway project	128	128
<b>Sub total specified schemes</b>		<b>4,141</b>	<b>4,127</b>
<b>Schemes to deliver HLOS capacity metrics for London and other specified urban areas</b>			
	Route 1: Kent		
1	12 car operations Sidcup and Bexleyheath routes	5	-
1	Power supply enhancements	19	16

Route	Scheme name	Network Rail SBP	Our assessment
1	12-car operations: Dartford to Rochester including Gravesend	15	13
1	12-car operations: Greenwich and Woolwich routes	3	3
1	12-car operations: Hayes and Sevenoaks (stopping) services	0	0
1	New Cross Enhancement to power supply	15	13
1	8-car operations: Victoria Eastern to Bellingham	5	4
1	8-car operations: Swanley-Ashford-Canterbury West-Ramsgate	4	3
1	12-car operations: Swanley to Rochester	5	4
	Route 2: Brighton main line and Sussex		
2	Power supply enhancements	18	15
2	Gatwick Airport remodelling and passenger capacity	30	9
2	East Croydon passenger capacity scheme	12	12
2	Suburban area 10-car operations to Victoria and London Bridge	76	65
	Route 3: South West main line		
3	Power supply enhancements	35	29
3	Waterloo International Terminal conversion	53	49
3	Clapham Junction station capacity and platform lengthening	56	20
3	10 Car South West suburban railway	110	76
3	Reading southern platforms	21	18
	Route 5: West Anglia		
5	West Anglia outer services 12-car trains	27	21
5	Power supply enhancements	3	1
5	Seven Sisters small works	2	2
	Route 6: North London line and Thameside		
6	Power supply enhancements	-	-
6	Tilbury Loop platform extensions	20	16
	Route 7: Great Eastern		
7	Power supply enhancements	6	2

Route	Scheme name	Network Rail SBP	Our assessment
7	Chadwell Heath turnback	4	3
	Route 8: East coast main line		
8	Platform lengthening (First Capital Connect services)	12	10
8	Moorgate branch improvements	5	5
	Route 10: North Trans-Pennine, North and West Yorkshire		
10	Capacity improvements (Leeds area)	94	60
	Route 11: South Trans-Pennine, South Yorkshire and Lincolnshire		
11	South Yorkshire - platform lengthening	11	1
11	Stabling for Northern (South Yorkshire)	10	9
	Route 13: Great Western main line		
13	Maidenhead and Twyford (relief lines)	3	3
	Route 16: Chilterns		
16	Chiltern platform lengthening	9	6
	Route 17: West Midlands		
17	Platform lengthening (West Midlands)	32	19
	Route 19: Midland Main Line and East Midlands		
19	East Midlands platform extensions	5	5
	Route 20: North West urban		
20	Capacity improvements (Manchester area)	99	60
<b>Sub total capacity metrics</b>		<b>824</b>	<b>573</b>
<b>Schemes to deliver both the route kms metric and the HLOS London capacity metric</b>			
8	Alexandra Palace to Finsbury Park 3rd Up Line project	46	37
8	Hitchin Grade separation	50	47
8	East Coast main line level crossing closures	20	19
8	York Holgate junction 4th line	10	10
8	Peterborough Station re-development and additional island platform	28	27
8	Shaftholme Junction re-modelling	42	47



Route	Scheme name	Network Rail SBP	Our assessment
8	Capacity relief to the East Coast Main Line (joint line via Spalding)	248	233
8	Finsbury Park – Alexandra Palace down improvements	14	14
<b>Sub total combined capacity/route kms</b>		<b>458</b>	<b>433</b>
Risk	Risk adjustment for DfT capacity schemes	216	177
<b>Sub Total England and Wales all HLOS capacity schemes</b>		<b>1,498</b>	<b>1,184</b>
<b>HLOS performance fund</b>		<b>250</b>	<b>160</b>
<b>Sub total England and Wales HLOS schemes</b>		<b>7,144</b>	<b>6,558</b>
<b>Schemes meeting the criteria</b>			
<b>Schemes meeting the criteria previously classes by Network Rail as HLOS capacity schemes</b>			
6	North London Line capacity enhancement	44	28
13	Cardiff capacity (Barry - Cardiff Queen Street corridor)	20	19
17	Redditch branch enhancement	16	15
17	Extension of cross city services to Bromsgrove	11	24
Risk	Risk adjustment	15	15
<b>Sub total</b>		<b>106</b>	<b>102</b>
<b>Other schemes meeting the criteria</b>			
8	East Coast Mainline overhead line enhancement	35	30
13	Cotswold Line re-doubling options	51	48
13	Westerleigh - Barnt Green linespeed upgrade	32	8
16	Wrexham to London Marylebone journey time improvements	5	5
19	Midland Mainline St Pancras - Sheffield line speed improvements	59	55
	Trans Pennine Express linespeed improvements	26	25
Risk	Risk adjustment of value for money schemes	31	26
	Projects to support move towards a seven day railway	320	160
	Development fund for CP5 schemes	240	50

Route	Scheme name	Network Rail SBP	Our assessment
	"Policy choices" (GSM-R freight only branches, Station information and surveillance systems, DC lines regenerative braking)	167	63
<b>Sub total</b>		<b>966</b>	<b>470</b>
<b>Total England and Wales schemes meeting the criteria</b>		<b>1,072</b>	<b>574</b>
<b>b) Funding not included with our PR08 determination</b>			
	West Croydon track capacity	15	-
	Didcot – Oxford area capacity upgrade	19	-
	Bolton corridor package	7	-
	Buxton line capacity and line speed improvements	15	-
	Doncaster Loversall Carr junction revised operational layout	6	-
	Hertford Loop (including Gordon Hill loops)	16	-
	Swindon-Kemble redoubling	32	-
	Redhill remodelling	25	-
	Crewe remodelling	58	-
	Reading station area- platform 1-8 renewals	26	-
	East Midlands resignalling - Nottingham station area	19	-
	Round Oak to Walsall reopening	10	-
	West Croydon station development	5	-
	West Anglia inner 9 car trains	32	-
	Liverpool Central passenger capacity	12	-
	Liverpool James Street	8	-
	Cogan junction upgrade	5	-
	Ninian Park to Radyr (City Line) linespeed improvements	5	-
	Birmingham New Street new bay platform	3	-
	Fenchurch Street and Chafford Hundred passenger circulation	2	-
	Risk	44	-
<b>Total schemes not funded</b>		<b>365</b>	
<b>Total England and Wales</b>		<b>8,581</b>	<b>7,132</b>
<b>Scotland- funding included within our PR08</b>			

Route	Scheme name	Network Rail SBP	Our assessment
<b>determination</b>			
<b>Scotland HLOS projects</b>			
Scot	Airdrie - Bathgate	185	189
Scot	Glasgow Airport rail link	173	135
Scot	Borders railway	3	3
Scot	Glasgow to Kilmarnock	12	12
Scot	Tier 3 project development	13	13
Scot	Small projects fund	20	20
<b>Sub total Scotland HLOS projects</b>		<b>406</b>	<b>372</b>
<b>Other Scotland projects</b>			
Scot	Seven day railway (Scotland)	30	-
Scot	"Policy choices"	12	3
<b>Sub total other Scotland projects</b>		<b>42</b>	<b>3</b>
<b>Total Scotland</b>		<b>448</b>	<b>375</b>

Note <sup>1</sup>: Totals may not sum due to rounding.

Note <sup>2</sup>: 0 indicates that the number is less than £0.5m.

Note <sup>3</sup>: – indicates zero.