Update on the framework for setting outputs and access charges and strategic business plan assessment

February 2008

OFFICE OF RAIL REGULATION

Contents

Acronyms

ACR2003	Access charges review 2003
ATOC	Association of Train Operating Companies
Capex	Capital expenditure
CP3	Control period 3 (1 April 2004 – 31 March 2009)
CP4	Control period 4 (1 April 2009 – 31 March 2014
CP5	Control period 5 (1 April 2014 – 31 March 2019)
DfT	Department for Transport
ERTMS	European railway traffic management system
FIM	Financial indemnity mechanism
FOC	Freight operating company
FTN	Network Rail's fixed telecom network
GRIP	Guide to railway investment projects
GSM-R	Global system for mobile communications – railways
HLOS	High level output specification
ICM	Infrastructure cost model
IEP	Intercity express programme
ISBP	Initial strategic business plan
Kgtkm	Thousand gross tonne kilometres
KPI	Key performance indicator
MIP	Management incentive plan
NMF	Network modelling framework
NRDF	Network Rail discretionary fund
NSIP	National stations improvement programme
OM&R	Operating, maintenance and renewals
Opex	Operating expenditure
ORR	Office of Rail Regulation
PAYG	Pay-as-you-go
PPM	Public performance measure
PR08	Periodic review 2008
PTE	Passenger Transport Executive
RAB	Regulatory asset base

RFF	Ring-fenced investment fund
RPI	Retail price index
RSSB	Rail Safety and Standards Board
RUS	Route utilisation strategy
SBP	Strategic business plan
SFN	Strategic freight network
SFO	Station facility owner
SoFA	Statement of public financial resources available
SRM	Safety risk model
TIF	Transport innovation fund
TOC	Train operating company
TPWS	Train protection and warning system

Summary

2008 PERIODIC REVIEW

1 Later this year we will determine Network Rail's regulated outputs and access charges for the period 1 April 2009 to 31 March 2014 – control period 4 (CP4). We intend to publish our draft determinations on 5 June 2008 and, following consultation, our final determinations on 30 October 2008. The final levels of individual access charges and associated price lists, and the formal access charges review notice that starts implementation of our determinations, will be published on 18 December 2008.

2 Our overarching objective for this work is to ensure an outcome that delivers 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.

3 This document is divided into three parts. In part A we set out some further decisions on our framework for setting outputs and access charges (the methods we use to establish outputs, assess Network Rail's revenue requirement and establish the incentive mechanisms within which Network Rail and its train and freight operating company partners will operate in the next control period).

4 In part B we set out our current assessments of Network Rail's strategic business plan for the control period based on our work to date. This provides further detail to our initial assessments of the affordability of the governments' high level output specifications within the public funding they have committed to the mainline railway for the next control period. We published our initial affordability assessments on 20 December 2007.

5 In part C we set out our decisions on Network Rail's 'early start' proposals for the next control period thereby enabling it to proceed with some of these works now.

The Governments' output specifications and public funding commitments for the next control period

6 The Secretary of State and Scottish Ministers provided us in July 2007 with the information about what they want to be achieved by railway activities during the next control period (their 'high level output specifications' (HLOSs)) and the public financial resources that they are making available for the period ('statements of public funds available' (SoFAs)). In our determinations we cannot assume more public monies than set down in the two SOFAs.

7 In determining the outputs and access charges for the next control period we will also take account of the reasonable requirements of all of Network Rail's customers and funders, including freight and open access train operators.

The strategic business plan

8 Network Rail submitted the industry's strategic business plan to us in October 2007. The plan contains Network Rail's proposals for operating, maintaining, renewing and enhancing the rail infrastructure in the next control period and its estimates of the revenue it would need to deliver these. Network Rail produced the plan with its industry partners. The plan sets down their assumptions about the respective contributions of Network Rail and franchised train operators to delivering all the Governments' output requirements. The plan also includes other outputs. The plan's revenue requirements are well in excess of the public funding that the governments have committed for the control period.

PART A: OUR FRAMEWORK FOR SETTING OUTPUTS AND ACCESS CHARGES

9 We established the general principles of our framework for setting outputs and access charges in our advice to Ministers and framework for setting access charges in February 2007. We will determine the appropriate level of revenue that Network Rail needs to run its business. Access charges are then set to recover this over the control period, less the grants paid directly to Network Rail by Government.

10 Network Rail is a GB-wide company and finances itself on this basis. However, we will determine separate revenue requirements for England & Wales and Scotland, in the context of the separate output and funding commitments.

11 Assumed revenue requirements, access charges and network grant levels are just part of a package. The other parts of the package are; the licence obligations; the full output and outcome requirements; the enforcement, financial and risk frameworks; the contractual and incentive arrangements; and other income besides track access charges. These will all be defined in our determinations and will form part of a balanced package.

12 We expect the balanced package to be considered and judged as a whole.

The licence obligations and the full output and outcome requirements

13 We consider that it is important that Network Rail has clearly defined obligations to meet in terms of specific outputs and outcomes it must deliver year on year and in terms of how it manages and operates the mainline network. There also needs to be clarity as to how compliance with these obligations will be assessed and enforced.

14 We are reviewing Network Rail's licence to strengthen and clarify the obligations placed on the company that we will enforce. In addition we aim to improve Network Rail's accountability to the train and freight operating companies and its funders. We will consult on the proposed changes to the licence in our draft determinations.

15 We have decided that the structure of the outputs and outcomes that will be required from Network Rail will comprise:

- **Country-wide and, in the main, annual outputs** (e.g. network capability and total delay minutes for England & Wales and for Scotland). We will set these minimum level outputs. These would not be expected to change during the control period. These would cover most of the outputs and outcomes necessary for Network Rail to deliver its contribution to the Governments' output specifications. A failure to deliver any of these outputs would trigger the start of a licence breach investigation.

- **Disaggregated annual outputs** that will be set by Network Rail in the control period delivery plan that it must publish before 31 March 2009 (e.g. train operator PPM). These outputs must be consistent with the country-wide outputs. We will consider these outputs as formal reasonable requirements such that any failure to deliver any of them would expose Network Rail to a licence breach investigation. There will be a clear and public change process available to Network Rail to alter these outputs before the start of any year provided that the aggregate output levels remain consistent with the country-wide outputs.

- **A series of monitoring indicators**, which will include asset condition and serviceability to inform annual and control period judgements as to whether Network Rail is meeting its stewardship obligations.

16 We will set out specific levels for each of the country-wide outputs in our determinations.

Financial and risk frameworks

17 We have made decisions on a range of financial issues.

- We continue to support Network Rail's proposal to raise additional debt in CP4 without government guaranteeing that debt. We therefore intend to restrict the use of the guarantee **(financial indemnity mechanism)** from the start of the next control period through a new licence obligation. Network Rail will not be able to use the indemnity mechanism when raising debt in the next control period. Network Rail will then face a hard budget constraint and greater lender scrutiny of its financial and operational performance.

- Network Rail will pay the Department for Transport **a fee for this indemnity** to reflect the improved terms with which it allows Network Rail to raise debt. This fee will be part of the allowed return we will assume when determining the reasonable revenue requirements. The allowed return provides for debt financing costs (for both existing and new debt), the indemnity fee, a risk buffer (to enable Network Rail to deal with a reasonable level of revenue and cost volatility year by year) and a small ring-fenced investment fund (that in extreme conditions would be available to deal with cost shocks). We have set out the rules governing the ring-fenced investment fund.

- **Network grants.** Part of Network Rail's revenue each year will be a direct network grant from the governments. We will fix the level of grant for each year of the control period as part of our determinations.

- Network Rail will be expected to manage **normal business risks** during the control period using the risk buffer.

- **Logging-up**. We are introducing specific rules for where Network Rail incurs higher levels of capital expenditure than assumed in our determinations. Where the independent rail reporter and our own analysis show that the incremental additional capital expenditure has been incurred efficiently we will log this up for inclusion in Network Rail's regulatory asset base in the next control period. Network Rail will need to manage the financing of this additional capital expenditure for five years before it is included in the regulatory asset base and remunerated in future access charges. Network Rail will need to manage any inefficiently incurred additional capital expenditure from within the overall control period resources.

- **Interim reviews**. For major changes in circumstances and substantial unanticipated cost shocks we will retain the option for Network Rail to seek an interim access charges review. This mechanism provides for the two governments (individually or collectively) to carry the risks of these changes to railway finances.

- **Capital expenditure outperformance.** For capital expenditure outperformance Network Rail will retain the benefit for a period of five years irrespective of when the saving is made. After five years the lower level of capital expenditure will be reflected in the regulatory asset base.

18 In addition, we have made decisions on the following detailed cost and financial issues.

- We will treat **pensions** as a normal operating expenditure item.

- We will make specific assumptions on Network Rail's **corporation tax** liabilities in our determination (adjusting for any double counting of payments made to Network Rail in the current control period).

- **Indexation.** General inflation risk will be carried by the governments as we will provide for the access charges and grants levels to adjusted year by year to reflect actual movements in the retail price index (RPI).

Contractual and incentive arrangements

19 We consider that the best outcomes for passengers, freight customers and the taxpayer will only be delivered if Network Rail and all its industry partners work together to improve railway services. To this end we will align the incentives between the parties as set out below.

- **Output fine-tuning.** We will adopt the proposals to allow fine-tuning of the required government outputs between Network Rail and train operating companies where subsequent work shows that better outcomes will be achieved than set down in Network Rail's control period delivery plan. The fine-tuning will be decided through commercial negotiations between Network Rail and relevant train operators. We will ensure that the change mechanism we establish for Network Rail's control period delivery plan is consistent with and facilitates this fine-tuning.

- We will implement an **outperformance benefit-sharing mechanism**, on the basis of the proposals made by the industry to us. In recognition of the commitments of the train and freight operators to work with Network Rail to achieve and then out-perform the regulatory settlement. Network Rail will share a proportion of all of its outperformance with them. Initially the sharing will be at a country-wide level (separately for England & Wales and Scotland) with annual payments to operators in cash following confirmation from us that there has been the claimed outperformance.

- **Volume incentive.** We will continue with a volume incentive mechanism in the next control period to encourage and reward Network Rail for responding positively where demand levels exceed those assumed in our determinations.

20 **Schedule 8 / performance regime**: Industry working groups are carrying out work to improve the effectiveness of the performance regimes for passenger and freight operators. In order to provide correct price signals, the performance benchmarks and payment rates in the regimes are being updated for the next control period.

21 **Schedule 4 / possessions regime.** Working together, the industry has submitted to us broadly agreed proposals for improvements to the regime for compensation for possessions for passenger train operators. Work is still underway to develop proposals for freight operators.

Structure of access charges

22 We have reviewed Network Rail's proposals on how to structure access charges. We have decided:

- not to implement **route based variable charges** or **reservation charges** in the next control period; and

- to implement **separate variable usage charge price lists** for England & Wales and Scotland given the material differential in variable usage costs.

23 We accept the principles of Network Rail's proposals for including the **long-term stations charge** as part of the fixed charge, but we are doing further work to address detailed issues.

Consultation

24 There are two specific issues that we are consulting on in this part of the document:

- our proposed approach to the rules governing the ring-fenced fund and the interaction with the re-opener provisions (set out in chapter 4); and

- our proposed approach to making changes to Network Rail's revenue requirement within the control period in line with any incremental (or decremental) changes that English Passenger Transport Executives and Transport for London might make to the level of rail services (set out in chapter 6).

25 We welcome your views on these issues, and any other comments you may want to make, by 28 March 2008.

PART B: OUR CURRENT ASSESSMENT OF THE STRATEGIC BUSINESS PLAN

26 Network Rail submitted the industry's strategic business plan to us in late October 2007. We have engaged closely with Network Rail to understand fully its proposals and all its material assumptions. The plan, together with additional information we expect from Network Rail in early April will provide the basis for our draft determinations in early June.

Our initial assessments of the affordability of the governments' output specifications

27 On 20 December 2007 we wrote to both governments that we considered there is a high likelihood that the governments' output specifications can be accommodated within the funds they have committed to the railways for the next control period. Our preliminary judgements were based on our initial analysis of the plan and in part B of this document we set down more detail of these judgements and the areas of weakness we perceive in the plan.

Key points from our initial assessment

28 The plan is a considerable improvement on Network Rail's earlier initial strategic business plan (July 2006). Network Rail has made good progress in a number of areas, including developing some of its asset policies and its infrastructure cost model. We note there are some categories of renewals activity, e.g. track, which are better substantiated than others.

29 However, we are concerned that there are many parts of the plan that we do not consider robust or sufficiently well justified to enable us to use them without making material adjustments in our determinations.

30 The key points from our initial assessment of the plan are set out below.

- **Performance.** Network Rail has set out a plan to achieve the outputs required by the governments in their output specifications. However, the plans do not represent a clear and robust approach. In particular, Network Rail included significant proposed capital expenditure to achieve the government's performance target in England & Wales which is poorly justified.

- **Safety.** The plan sets out the proposals for delivery of the government's safety specification of a 3% reduction of the risk to passenger and workforce over the control period. We do not consider that delivering this presents any insurmountable concerns. We will monitor delivery during the control period. The plan also contains proposals for some significant changes in the way Network Rail runs its business which will present health and safety challenges. We are examining these and expect to have closed out the majority of these ahead of our draft determinations. Where we have any remaining concerns we will include them in our intervention plans during the next control period.

- **Expenditure**. As noted above we consider the plans for track renewals are better justified than other areas of expenditure, including operating expenditure, structures renewals and operational property, which are poorly developed. We are also concerned by the lack of progress of schemes through the early stages of Network Rail's project development procedures evidenced by lack of detail on scope and cost estimates.

- **Scope for efficiency improvement.** We consider that Network Rail has significantly underestimated the scope for it to improve its efficiency in the next control period. Based on our analysis to date, Network Rail may be at least 30% less efficient than the average of other European rail infrastructure managers.

- **Deliverability.** At this stage of our assessment we are not fully convinced that Network Rail is able to demonstrate how it will be able to deliver the significant level of renewal and enhancement work required in the next control period in a timely and efficient way, without causing disruption to its customers. We are doing further work to examine this ahead of our draft determinations.

31 **Revenue requirements.** The outcome of our initial assessment is that we consider that Network Rail has significantly overstated its revenue requirements for the next control period.

PART C: OUR DECISIONS ON NETWORK RAIL'S EARLY START PROPOSALS

32 We all want to avoid any hiatus in progressing improvements on the railway as we make decisions on the overall control period requirement this year. Therefore, Network Rail included in the plan the outputs it proposes for early start decisions on the funding for the first year of the next control period. We set out in part C our assessment of the proposals and our decisions on those that can proceed now.

33 We are approving early start for a range of work now and expect to announce our decisions on further early start work in our draft determinations. Our current views on the enhancement scheme proposals are summarised below:

- **Airdrie to Bathgate** – yes, subject to no major issues with the output / funding match.

- **Kings Cross** – not at this stage, we expect to be able to confirm in our draft determinations.

- **Thameslink** – yes, subject to no major issues with the output / funding match.

- **Reading, Birmingham New Street, SW main line 10 car, Bletchley-Milton Keynes and North London Line**: subject to further information from Network Rail we expect to be able to confirm in our draft determinations.

- **Network Rail discretionary fund** – we support a continuation of the fund in the next control period.

- **National stations improvement programme** – we can confirm the first tranche of projects on this joint Network Rail / train operating company initiative.

- **Access for all** – we confirm our support for the continuation of this programme, which is governed by a protocol and funded through an existing, ongoing capped annual expenditure allowance.

1. Introduction

Context

1.1 The 2008 periodic review (PR08) will determine Network Rail's regulated outputs and access charges for control period 4 (CP4), which will run from 1 April 2009 to 31 March 2014. We will conclude the review in October 2008 when we publish our final determinations, with final levels of individual access charges and associated price lists approved by us in December 2008 following calculation by Network Rail.

1.2 Our overarching objective for the work we are undertaking in PR08 is to ensure an outcome that delivers 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. Annex A contains further specific objectives for PR08.

1.3 The legal procedure for conducting an access charges review is set out in Schedule 4A to the Railways Act 1993. This was amended following the Railways Act 2005. The key amendment provided for the Secretary of State for Transport and Scottish Ministers to produce 'high-level output specifications' (HLOSs) and 'statements on the public financial resources available' (SoFAs). These were provided to us in July 2007, in compliance with our requests to them and the requirements of the Act.[1] The HLOSs and SoFAs contain, respectively, the information about what the governments 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. The HLOSs and SOFAs form a key input to our work to determine Network Rail's outputs, revenue requirement and access charges.

1.4 In addition to the HLOSs and SoFAs we will take account of the reasonable requirements of all of Network Rail's customers and funders, including freight

[1] 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/uploads/documents/HLOS-July-2007.pdf.

and open access train operators, in determining the company's outputs and access charges.

1.5 There has been a significant amount of detailed work undertaken and debate by the industry since we started the review in August 2005. From the start of the review we committed to conducting the review transparently, exposing the issues and consulting on and explaining all our key decisions. We have consulted on a wide range of issues, including the structure of outputs, the incentives facing Network Rail and the industry, Network Rail's financial framework, and the structure of charges. Documents relevant to PR08, including consultations (and responses), consultant reports and decisions we have already reached are available on the PR08 section of our website.[2]

1.6 In February 2007 we published our advice to Ministers and framework for setting access charges ('advice to Ministers').[3] That document (and the accompanying access charges review initiation notice required by the Railways Act 1993) started the formal phase of PR08. We requested the Secretary of State and Scottish Ministers to provide us with their HLOSs and SoFAs. We set out ranges for Network Rail's possible revenue requirement in CP4 to assist the Secretary of State and Scottish Ministers develop their HLOSs and SoFAs. We set out how we would deal with the HLOSs and SoFAs in PR08 and we also included our guidance to Network Rail on what it needed to do to improve its plans for its SBP submission. The document also included explanation of how we will determine Network Rail's access charges and establish the incentive framework in which the company and the industry will operate in CP4.

1.7 In order to be able to determine Network Rail's access charges we need to understand the costs that Network Rail expects to incur to run its business and the revenue it requires to do this. In October 2007 Network Rail submitted to us and published its strategic business plan (SBP), which is the company's principal submission to us in PR08. The SBP sets out and explains the company's proposals for operating, maintaining, renewing and enhancing the

[2] The PR08 page on our website may be accessed at http://www.rail-reg.gov.uk/server/show/nav.180.

[3] *Periodic review 2008: Advice to Ministers and framework for setting access charges*, Office of Rail Regulation, February 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/316.pdf.

rail infrastructure in CP4.[4] The SBP, which Network Rail has produced in conjunction with its industry partners, responds both to the requirements of the two HLOSs but also includes a range of further expenditure to deliver outputs for the company's other customers and funders.

1.8 Our assessment of the SBP runs through to June 2008 when we publish our draft determinations. Our assessment involves a detailed and thorough review of all the material proposals and assumptions made by Network Rail in its SBP. We are doing this through meeting directly with Network Rail to clarify and challenge its proposals, taking advice from consultants, and asking the independent rail reporters to review key parts of the plan. We have also consulted the industry on the SBP and have met directly with many industry parties to understand their views on the SBP.

Purpose of this document

1.9 The purpose of this document is threefold.

- We set out our decisions, or update on progress, on the framework for setting outputs and access charges.
- We set out our views on Network Rail's SBP based on the assessment we have completed to date. It covers the work we have undertaken in the initial phase of our assessment, which resulted in our announcements on the affordability of the two HLOSs on 20 December 2007.[5],[6] As part of this, we summarise the areas where we are doing further work and where we have asked Network Rail to provide further information or justification for its SBP.
- We set out our decisions on Network Rail's proposals, included in its SBP, for approval of funding for certain 'early start' work for CP4.

4 The SBP, which may be accessed on Network Rail's website at http://www.networkrail.co.uk, comprises a range of documentation including the main document, route plans and asset policies.

5 Periodic review 2008 - likely affordability of your high level output specification, letter to DfT, 20 December 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-hlosdif-DfT-201207.pdf.

6 Periodic review 2008 - likely affordability of your high level output specification, letter to Transport Scotland, 20 December 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-hlosdif-TS-201207.pdf.

Structure of this document

1.10 The rest of this document is structured as follows.

Part A: Our framework for setting outputs and access charges

- Chapter 2 provides an overview to this part of the document.
- Chapter 3 sets out our decisions on the structure of charges for CP4. It also outlines the work we are undertaking to review and strengthen Network Rail's licence.
- Chapter 4 sets out decisions on detailed financial framework issues.
- Chapter 5 provides our decisions on the CP4 contractual financial incentive framework and an update on the contractual incentives (schedule 4 and schedule 8).
- Chapter 6 provides an update on progress and sets out decisions in respect of the structure of charges.

Part B: Our current assessment of the strategic business plan

- Chapter 7 describes the work we have undertaken to date in our assessment of Network Rail's SBP.
- Chapter 8 summarises the results of our initial HLOS affordability assessments.

Part C: Our decisions on Network Rail's early start proposals

- Chapter 9 sets out our decisions on early start for CP4.

Implementation of PR08

1.11 PR08 is implemented through the process set out in Schedule 4A to the Railways Act 1993. This process involves serving a series of formal notices starting with the review notice(s) that we intend to publish on 18 December 2008. Details of the implementation process were discussed in our advice to Ministers. The process enables Network Rail to object to the review notice(s). If this happens either:[7]

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7 Network Rail may also withdraw its objection.

- we can change the review notice(s) and re-publish them; or
- we can refer the review to the Competition Commission.

1.12 If either of these outcomes occurs then it is very unlikely that there will be time to implement the PR08 determinations by 1 April 2009. This is an issue because a number of charges and elements of the incentives regime in franchised passenger train operators' track access contracts expire on 1 April 2009. In particular this includes a large proportion of Network Rail's income (fixed track access charge and the Schedule 4 access charges supplement). We must not undermine the statutory rights that Network Rail has to challenge our determinations if it does not want to accept them.

1.13 We consider it is necessary to establish a mechanism that, should it be required, implements the determinations of the periodic review, subject to any revisions necessary following review by the Competition Commission. We have reviewed various approaches that might be used to resolve this.

1.14 Our recommended approach, following discussion with Network Rail, DfT and Transport Scotland, is for Network Rail and franchised passenger train operators to agree a section 22 change to the drafting in their track access contracts.[8] We anticipate that this would be in the form of a trigger mechanism in the contracts so that the review notice(s) would have effect from 1 April 2009 if implementation is delayed as a result of objections received from Network Rail. This has the effect of implementing our PR08 final determinations pending the outcome of any reference to the Competition Commission or reconsideration by us.

1.15 This issue only applies to franchised passenger operators as the main forms of Network Rail income that cease to have effect on 1 April 2009 are found in

[8] Network Rail and each affected train operator have a track access contract approved by us. Section 22 of the Railways Act 1993 provides for any agreed amendments to be submitted to us for approval (otherwise these are void). We are proposing to provide text that will form an agreed amendment for general approval and anticipate this then being agreed simultaneously by Network Rail and each of the franchised passenger train operators. This does not apply to freight operators or non-franchised passenger operators.

their track access contracts. Both governments have indicated that this would be covered by 'clause 18.1'.[9]

1.16 We will shortly be consulting on the approach we propose to take to address the implementation of PR08.

PR08 timetable

1.17 Table 1.1 contains the high-level timetable for the remainder of PR08.

Table 1.1: High-level timetable for the formal phase of PR08

Date	**Milestone**
By 3 April 2008	Network Rail publishes its SBP update
5 June 2008	We publish our draft determinations for CP4
30 October 2008	We publish our final determinations for CP4
18 December 2008	Final access charges (price lists/charge schedules) are audited and approved. Review notice(s) are served starting the formal implementation of PR08
5 February 2009	Final point at which objections could be made to our review notice(s)
By 31 March 2009	Network Rail publishes its CP4 delivery plan

Responses to this document

1.18 We would welcome your views on the two parts of the framework for setting access charges that we are consulting on in this document:

- our proposed approach to the rules governing the ring-fenced fund and the interaction with the re-opener provisions, set out in chapter 4; and
- our proposed approach to making changes to Network Rail's revenue requirement within the control period in line with any incremental (or decremental) changes that English Passenger Transport Executives (PTEs) and Transport for London (TfL) might make to the level of rail services, set out in chapter 6.

[9] Under 'clause 18.1' of their franchise contracts (Schedule 9.1 in the new model agreement), franchised passenger train operators are held financially neutral to changes in the level and structure of access charges resulting from access charges reviews.

1.19 Please can you send your responses in electronic format (or if not possible, in hard-copy format) by Friday 28 March 2008 to:

Paul McMahon
Deputy Director, Competition and Regulatory Economics
Office of Rail Regulation
1 Kemble Street
London WC2B 4AN

Tel: 020 7282 2095
Email: paul.mcmahon@orr.gsi.gov.uk

1.20 We also welcome comments on any issue raised in this document and will take them into account as part of the on-going work on PR08.

1.21 If you send a written response, you should indicate clearly if you wish all or part of your response to remain confidential to ORR. Otherwise we would expect to make it available in our library and on our website and potentially to quote from it. Where your response is made in confidence please can you provide a statement summarising it, excluding the confidential information, that can be treated as a non-confidential response. We may also publish the names of respondents in future documents or on our website, unless you indicate that you wish your name to be withheld.

1.22 Copies of this document can be found in the ORR library and on the ORR website (www.rail-reg.gov.uk).

PART A: OUR FRAMEWORK FOR SETTING OUTPUTS AND ACCESS CHARGES

2. The framework for setting outputs and access charges

Introduction

2.1 The purpose of part A of this document (chapters 2 – 6) is to set out our decisions, or update on progress, on the framework for setting outputs and access charges (the methodology we employ to establish outputs, calculate access charges and establish the incentive framework within which Network Rail and the industry will operate). We also consult on two specific issues.

2.2 The values/levels for all the individual parts of the framework will be set out in our draft determinations.

How we set access charges

2.3 At a periodic review we assess the efficient level of revenue that Network Rail needs to run its business (including an allowed return on its regulatory asset base) to deliver the required outputs. Access charges are set to recover these costs. The company's net revenue requirement is funded through track access charges paid by franchised passenger train operators (TOCs) and any grants paid to the company by DfT and the Scottish Executive in lieu of access charges.

2.4 The net revenue requirement is the gross requirement less other single till income (principally station charges, property income and charges paid by open access passenger and freight operators). The calculation of the revenue requirement follows the standard 'building block' approach (with the key feature of this being that renewals and enhancement expenditure is added to the regulatory asset base (RAB) and remunerated through the amortisation allowance and the allowed return). The approach is described further in chapter 6 of our advice to Ministers.[10]

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[10] *Periodic review 2008: Advice to Ministers and framework for setting access charges*, Office of Rail Regulation, February 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/316.pdf.

2.5 We make our determinations based on an assessment of the overall level of efficient expenditure we consider the company needs to undertake over the control period. Whilst we derive this from review and challenge of Network Rail's own plans, as well as undertaking our own independent assessments, we do not decide the detailed level, or pattern, of expenditure or activity that Network Rail may ultimately need to undertake on the railway in order to deliver the required outputs. It is for the company to define and deliver its workbanks consistent with its asset policies, actual asset condition and requirements on the network.

2.6 Our judgements on the efficient level of expenditure that Network Rail needs to undertake in CP4 and the access charges and network grant levels necessary to recover these costs are part of a package. The other parts of the package are: the licence obligations; the full output requirements; the monitoring and enforcement, financial and risk frameworks; and the contractual and incentive arrangements. These will all be defined in our determinations and will form part of a balanced package. We expect the balanced package to be considered and judged as a whole.

Advice to Ministers

2.7 We set out in our advice to Ministers a range of decisions on the framework for setting access charges. These included decisions on the form and duration of the price control, the retention of the 'single till' basis for the price control and the principles of the high-level financial framework (in particular relating to the rate of return and amortisation). We set out our decisions on key incentive mechanisms for Network Rail and the industry. We also set out decisions on a number of important issues relating to the structure of charges. In particular we stated that we would retain the existing approach for open access charging and, as part of the early work to determine track access charges for freight operators, we established caps for variable usage charges and for the new charge for freight only lines used by certain freight traffic.

3. Accountability: licence obligations and the outputs framework

Introduction

3.1 This chapter sets out our decisions on the structure of charges for CP4. It also outlines the work we are undertaking to review and strengthen Network Rail's licence, to improve the accountability of the company to its customers and funders.

Ensuring delivery

3.2 Network Rail is accountable for its management of the network, through contracts with its customers and through compliance with the obligations in its licences. In PR08 we will determine the efficient expenditure Network Rail needs to incur to operate, maintain, renew and develop the infrastructure to deliver the outputs the governments (and other funders) wish to buy, to satisfy the reasonable requirements of its customers and funders and, thereby, to meet the needs of passengers and freight customers. We must also ensure that the company's obligations are clearly defined and that the framework is in place to monitor and provide for the effective enforcement of those obligations if necessary.

3.3 We do not determine everything Network Rail should do. It is important that, within the framework we set, the company is free to manage its business efficiently and to respond to the developing needs of its customers and funders. But essential features of the manner in which it does this, and the delivery of the outputs for which we do set formal requirements, will be enforced through Network Rail's network licence. However, where there are contracts in place we would expect contractual remedies to be explored where possible within a reasonable timescale and we will take this into account in determining whether there was a matter to be investigated.

3.4 The output requirements and the network licence must therefore be aligned with each other. We should not set outputs we cannot enforce, and the outputs we set must be consistent with Network Rail following the best approach in its management of the network. In this review we are therefore considering both Network Rail’s network licence and the structure of output requirements for the next five years.

The review of the network licence

3.5 Network Rail’s network licence has been strengthened significantly by ORR and its predecessors a number of times since it was originally issued by the Secretary of State for Transport. We consider it is appropriate to strengthen it further in a number of areas, such as access planning and asset management, to make Network Rail’s obligations more explicit and to support our ability to enforce them if necessary.

3.6 We are developing our proposals for licence changes and we plan to hold informal discussions with Network Rail and its customers and funders in the next few months. This will be followed by policy consultation in June and statutory consultation after our final determinations for PR08 have been published.

Governance

3.7 We want to ensure that the framework we put in place for CP4 maximises the chances that Network Rail meets or exceeds the regulatory expectations and hence the reasonable requirements of its customers and funders. It is therefore essential that incentives throughout the company are aligned with those expectations and that effective corporate governance processes are in place, ensuring strong accountabilities and driving continuous improvements in Network Rail's performance. We intend to review whether the existing management incentive plan (MIP) and corporate governance licence conditions are sufficient to achieve these objectives

Outputs

3.8 We are setting out our decisions on the structure of outputs now, so that we can establish specific levels of these between now and our draft determinations (where appropriate). We will consult on these levels in our draft determinations.

3.9 The levels will be based on our assessment of Network Rail’s SBP and our view of the progress the company should achieve. We will seek to ensure that Network Rail’s obligations are aligned to the needs of its stakeholders, and are both demanding and achievable.

The form and structure of outputs for Network Rail in CP4

3.10 We consulted on our approach to the form and structure of outputs at the end of August 2007. We held a workshop for the industry on outputs and the review of the network licence in September 2007. The workshop and subsequent consultation responses showed general support for our proposals.

3.11 We said in our consultation document that we wish to ensure that the outputs we specify will, amongst other things, require Network Rail to contribute in an efficient way to delivering the requirements of the HLOSs. These address the key factors of safety, performance and capacity. However, since the HLOSs primarily address the needs of the government-sponsored franchised passenger operators, we must ensure that the railway is also operated and developed taking account of the reasonable requirements of other users – freight and non-franchised passenger train operators and their customers.

3.12 We also propose that there should be more disaggregation, meeting the expectations of stakeholders who wish to know what Network Rail is committed to deliver on different parts of the network. We recognise that Network Rail could then be constrained in its delivery of overall outputs to a greater degree than at present, but we consider this to be commensurate with its role and the significant funding it receives from the taxpayer and rail users. We intend to provide some flexibility by introducing a regulated change control process for such output commitments.

3.13 We have decided that Network Rail's outputs should be secured, as proposed, through a structure which consists of:

- top level regulated outputs, for which we will set minimum levels which will be enforceable under the network licence. These will include most of the outputs needed to ensure that Network Rail makes its full contribution to the requirements of the HLOSs (but not those relating to network capacity);
- outputs at a more disaggregated level in areas which we will specify, including network capacity, the detail of which will be established by Network Rail so as to be consistent with the final determinations of PR08, and published in the company's CP4 delivery plan. These will have the

status of reasonable requirements and will therefore also be enforceable under the network licence;

- a regulated process to allow changes to these disaggregated outputs under certain circumstances; and
- a suite of monitoring indicators and diagnostic tools.

3.14 The top level outputs will be part of a package in our determinations of PR08. We expect the form of the determination to include:

- the financial settlement;
- the top level outputs we are setting for Network Rail;
- modifications to Network Rail's network licence following our review;
- the form and content of the CP4 delivery plan (the 2009 business plan) which should contain Network Rail's own lower-level outputs and targets and be the main reference document for the control period; and
- how proposed changes to delivery plan commitments should be handled.

Decisions on output areas

3.15 We consulted on a number of areas where we were considering setting output requirements.

Safety & health

3.16 Compliance with statutory health and safety duties is an over-riding obligation for Network Rail and it has a specific objective to reduce all health and safety risks so far as is reasonably practicable.

3.17 The HLOS issued by the Secretary of State specifies safety improvement for the whole of the GB mainline network to be achieved over the five years of CP4.[11] It requires a 3% reduction in the risk of death or injury from accidents on the railway for passengers and rail workers.[12]

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[11] Because safety is not a devolved matter, the Secretary of State is specifying risk-reduction across the whole of the railway in Great Britain.

[12] Measured in fatalities and weighted injuries per million passenger kilometres (for passengers) and per million hours worked (for rail industry employees).

3.18 We require Network Rail to set out in its CP4 delivery plan how the industry - working together through the Rail Safety and Standards Board (RSSB) and mechanisms such as the strategic safety plan – plans to deliver the HLOS target. We will not set targets beyond this.

3.19 The output from the existing industry safety risk model (SRM) will be the key means of deciding whether or not the HLOS safety requirement has been met. The SRM will be run by RSSB at the start of CP4, at the end of the control period and at least once during CP4. To enable a more frequent review of progress in delivering the specification and, importantly, to enable any timely remedial action to address under performance, we propose to use existing annual safety reports.

Reliability of train performance

3.20 The HLOSs include specifications for franchised passenger train performance. Network Rail is also accountable for the performance of freight and non-franchised passenger services. We will therefore set top level regulated outputs to cover the specific HLOS targets, but also to cover open-access passenger and freight train operators.

3.21 We will also require Network Rail to set out its targets in its CP4 delivery plan disaggregated by train operator. These figures should be based on commitments in the joint performance improvement plans (JPIPs) and local output commitments (LOCs) developed between Network Rail and train operators.[13] Such figures will have the status of reasonable requirements, enforceable under the network licence. They will need to be compatible with our determinations.

3.22 Table 3.1 summarises the approach.

[13] A JPIP (joint performance improvement plan) is an agreement between a franchised passenger train operator and Network Rail, under Part L A of the Network Code, to develop challenging targets to improve performance to specified levels. A LOC (local output commitment) is a commitment by Network Rail to a freight train operator, or an open access passenger train operator and Network Rail under Part L of the Network Code. If the commitment is not delivered, compensation may be payable by Network Rail.

Table 3.1: Performance: outputs that will apply to Network Rail in CP4

Output category	Franchised passenger and open access operators	Freight operators
Top level regulated output – for each year of CP4	ScotRail PPM For England and Wales, sector PPM and significant lateness (franchised and open access operators): • long distance services • London and South-East services • regional services As above, for franchised operators only Network Rail total delay minutes for England & Wales Network Rail total delay minutes for Scotland	Network Rail total delay minutes per 100 train-km
Disaggregated outputs – for each year of CP4 (derived though JPIP/LOC processes where applicable)	Train operator PPM Network Rail delay minutes for each train operator	Network Rail delay per 100 train-km caused to each individual freight train operator

Network capacity

3.23 The HLOSs require Network Rail to make specific capacity enhancements to the network in CP4. In England & Wales these include Thameslink, Birmingham New Street, Reading, peak period capacity for a range of major cities and route capacity for all major routes. In Scotland the requirements relate to the Glasgow Airport Rail Link, Airdrie-Bathgate and the Borders railway. The Scottish HLOS also requires Network Rail to produce a credible and affordable plan to progress projects for infrastructure enhancements to improve journey times, increase reliability and increase capacity between Edinburgh and Glasgow and in Ayrshire and the Highlands.

3.24 We expect Network Rail to define clear deliverables and milestones for its proposed contributions to committed capacity enhancements in its CP4 delivery plan. Except where clearly identified as being ‘aspirational’, and subject to the proposed change procedure, these will have the status of reasonable requirements under the network licence and Network Rail will be required to deliver them.

Network capability

3.25 We proposed that network capability requirements should be as described in the relevant documents as at 1 April 2009, subject to industry change processes and enhancements in CP4.[14] We believe that this is the right approach. In the light of responses to our consultation, we confirm that any discrepancies between actual and published capability (either those identified through Network Rail's infrastructure capability programme of 17 March 2006, or identified after 1 April 2009) must be rectified by Network Rail without further funding above that determined in PR08. In addition, any routes undergoing restoration to published capability following a short-term network change must be restored by Network Rail without further funding.

3.26 Network Rail has not made a convincing case for an aggregate tonnage limit being included within the definition of capability. We do not therefore intend to adopt it for CP4. This means that in its CP4 delivery plan (or as referenced by it) Network Rail should describe the capability of the network in terms of:

- track mileage and layout;
- line speed;
- gauge;
- route availability; and
- electrification type/miles.

Network availability

3.27 Network availability is an important part of Network Rail's output and we therefore intend to set an output requirement for it.

3.28 At our industry workshop on 21 September 2007 we presented and discussed three options for key performance indicators (KPIs) of network availability

[14] The relevant documents comprise the Rules of the Route, the Rules of the Plan, and the Working Timetable and all appendices to the Working Timetable including the sectional appendices as defined in the Working Timetable and all supplements to the sectional appendices.

suggested by our consultants, Steer Davies Gleave. In view of the responses from the industry we have decided that the best option is to adopt separate KPIs for passenger and freight services, as these will capture better the impacts felt on those sectors.[15,16]

3.29 We will set separate requirements for England & Wales and Scotland. We will monitor at a more detailed level; the KPIs can potentially be disaggregated to individual passenger operators.

Asset serviceability and sustainability

3.30 We have decided that we should adopt the approach to asset serviceability we proposed in our consultation document. This means that in CP4 we will not set any top level regulated output requirements for assets, but will monitor against a dashboard of indicators, including targets Network Rail will include in its CP4 delivery plan.

3.31 The dashboard of indicators that we intend to use to monitor the long-term sustainability of Network Rail's infrastructure will be a combination of measures that reflect asset condition, asset age and/or activity levels. Use of the latter measure presumes that Network Rail's business planning processes are sufficiently robust to permit accurate forecasts of the activity levels required to produce a defined outcome, and therefore that any significant shortfall from these figures provides a sound leading indicator of potential problems in respect of the network's safety, performance and reliability. We will also continue to review the development, refinement and application of Network Rail's asset management capability and asset policies as part of ongoing monitoring of Network Rail's overall maturity in asset management.

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[15] The passenger KPI is based largely on the mechanism for Schedule 4 compensation. It reflects the value of the impact of possessions on the journey time as experienced by passengers. It takes into account: the average extended journey time per train for each service group; the weighted average of cancellation minutes per train for each service group; a ‘busyness factor’ specific to service group and day of week; and the ‘value’ of time experienced by the different passenger groups. The results are divided by the total number of scheduled passenger train-km to normalise for changes in service levels.

[16] The freight KPI measures the availability of track-kilometres, weighted by the level of freight traffic operated over each line section. The measure takes the level of non-availability by line section and applies a weighting to reflect the intensity of freight traffic scheduled over that section on the relevant day of the week. It is calculated daily taking account of the proportion of freight traffic operating by day of the week and aggregated to give a measure per period.

3.32 As is the case with present monitoring arrangements, we will be using a combination of measures that reflect the long-term serviceability and sustainability of the different asset categories. We will set out the precise definition of the most appropriate set of measures in our draft determinations.

Stations

3.33 Stations are the most passenger-facing of Network Rail's assets and have attracted additional funding from the Secretary of State in her HLOS. We intend to set a top level regulated output for the average condition for different types of station, as proposed in our consultation.

3.34 We will require Network Rail at least to maintain the average station condition score within each station category A to F in both England & Wales and Scotland. The condition scores will be based on the current average condition of its stations, following Network Rail's survey of around 90% of its stations last year.

3.35 Any uplift in station condition arising from the additional funding being made available by the Secretary of State under the national stations improvement programme (NSIP) would be additional to the attainment of the output targets. In particular, we would require Network Rail at least to maintain station condition in each category after excluding those stations benefiting from this additional funding.

3.36 We have decided that we should not set a top level regulated output relating to station facilities in CP4. We will continue to monitor progress through the annual return as proposed in our consultation document.

Depots

3.37 We do not intend to set a top level regulated output on the condition of light maintenance depots owned by Network Rail. Once it has determined the current depot average condition, we require it to include in its CP4 delivery plan its own planned trajectory for average depot condition. This will have the status of a reasonable requirement.

Customer satisfaction

3.38 We explained in our consultation that we believe it is important for Network Rail to work hard to increase the satisfaction of its own customers. We said that we thought it desirable for weight to be given to such a measure within the company's MIP, but that if this were not to be the case we proposed to set a requirement ourselves as part of PR08. We received confirmation from respondents that this was the right approach, and that Network Rail needs to improve its customer satisfaction.

3.39 We understand that Network Rail's remuneration committee is considering including customer satisfaction in the MIP. However, until inclusion of such a measure has been confirmed, we will make plans to set a top level formal output as part of the PR08 determination.

3.40 We believe that Network Rail's surveys should be an appropriate way to record customer satisfaction.

Environment

3.41 There was widespread support for our proposal that we should leave it to the industry to develop KPIs for environmental performance and that we should monitor progress against these KPIs in CP4. We do not therefore propose to set outputs in this area in CP4. We would expect Network Rail to publish the targets that it will set itself in CP4, but we do not consider that these targets would form reasonable requirements for train operators.

Network planning

3.42 We are aware that Network Rail consulted its stakeholders over plans to improve its access planning outputs and service levels in December 2007, and asked for responses by the end of January 2008. We will discuss shortly with Network Rail the views it received. We shall then consider how to reflect Network Rail's intended approach in our review of the network licence. Our purpose will be to ensure that Network Rail is clearly accountable for delivering the required quality of service to its stakeholders.

3.43 We do not believe that this is an area where a quantified output obligation would be appropriate.

Change process

3.44 In our consultation document, we outlined our thoughts on the need for a mechanism to approve changes to the disaggregated output commitments set by Network Rail in its CP4 delivery plan. We do not anticipate that there should be any changes to the top level regulated outputs that we define, though there could be changes to the party delivering these (as referred to below).

3.45 This was generally supported by consultees, but there was some concern that a change mechanism might result in lack of accountability.

3.46 We believe that train operators have a key role in challenging any changes proposed by Network Rail. We will, where necessary, review proposed changes ourselves or through the independent rail reporters.

3.47 The change process will cover:

- **capacity**: any changes from the deliverables or milestones specified in Network Rail's CP4 delivery plan should be notified to us for approval. We will check that changes are consistent with the relevant HLOS and will consult interested parties. Where there are bespoke arrangements in place (e.g. the Thameslink project), the change process in those arrangements will apply, but we will investigate complaints and monitor overall delivery;

- **disaggregated output commitments**: where Network Rail wishes to make changes to any disaggregated targets that form reasonable requirements for its customers and funders, it should notify us and indicate where it has agreement from the relevant party. We will investigate any complaints about proposed changes from parties directly affected;

- **delivery of the HLOS**: where Network Rail agrees with another party (e.g. a train operator) that their respective contributions to delivery of an HLOS output should change, the two parties should notify us and DfT or Transport Scotland (as appropriate). (This 'fine-tuning' of HLOS delivery is also discussed in chapter 5.)

3.48 The CP4 delivery plan may also include statements by Network Rail that are clearly identified as aspirational output targets. Network Rail will be free to change these, notifying us of changes.

3.49 Network Rail's March 2009 delivery plan for CP4 will be a key document. We expect Network Rail to provide us with an advance copy for assessment against our PR08 determinations. If we are not satisfied that it is consistent with the determinations of PR08, we will require Network Rail to revise it accordingly and issue us with an amendment. Non-objection, however, would not constitute an 'approval', since it is not for us to approve Network Rail's delivery plans.

Monitoring and reporting Network Rail's performance

3.50 We are reviewing our approach to monitoring and reporting in the next control period. We aim to ensure that monitoring and enforcement is proportionate and our general approach is to focus on systemic issues. Our monitoring takes several forms, including analysis of regular reports on industry performance, including those from independent rail reporters, discussions with industry stakeholders on current issues, and investigation of complaints.

3.51 Although we will continue to use a far more extensive range of metrics and indicators than simply those which form the regulated output commitments, our intention is to avoid the introduction of any undue burdens on Network Rail. Our approach will continue to be the identification of potential systemic problems at an early stage so that Network Rail can address them. This is particularly relevant in the area of asset management, where early action can prevent problems at a later stage. However, it remains Network Rail's responsibility to deliver in this and all other areas.

3.52 We will also give significantly more attention to reporting of major projects in CP4, reflecting the increased volume of enhancement work needed to deliver the HLOS requirements.

4. Decisions on detailed financial framework issues

Introduction

4.1 As part of PR08, we have undertaken a thorough review of the financial framework for Network Rail and the incentives that this creates. In addition, we have assessed each of the three main elements of the financial framework: the allowed return; the definition and treatment of the regulatory asset base (RAB), including amortisation; and the way in which risks and uncertainties are treated.

4.2 In our advice to Ministers, we set out our decisions on the appropriate high-level financial framework for Network Rail in CP4, including the methodology for disaggregating the framework for England & Wales and Scotland, and the approach to be used in establishing Network Rail's allowed return. A key objective in determining this was the desire to establish greater incentives on Network Rail to strive for continuous improvements in performance and efficiency.

4.3 In September 2007, we published our financial issues update and further consultation letter.[17] That letter provided an update and further consultation on the development of the financial framework and considered: the allowed return and financeability; calculation of the opening CP4 RAB and how the RAB will be rolled forward during CP4; our approach to corporation tax; the balance between network grant and track access charges in CP4; and other financial issues (pensions, the treatment of inflation and re-openers). Responses to that letter are available on our website and were generally supportive.[18]

4.4 In this chapter, we set out:

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[17] *Financial issues update and further consultation*, Office of Rail Regulation, September 2007. This may be accessed at www.rail-reg.gov.uk/upload/pdf/pr08-financial-issues-let-060907.pdf.

[18] The responses may be accessed at http://www.rail-reg.gov.uk/server/show/ConWebDoc.9055.

- that we continue to support Network Rail's proposal to raise additional debt in CP4 without the use of a government guarantee (the financial indemnity mechanism (FIM)). We explain the way in which the use of the FIM is to be restricted;
- our preferred approach on the rules governing the ring-fenced investment fund and the interaction with the re-opener provisions;
- our decision on the indexation of the allowed return;
- the type of re-opener provisions to be used;
- the principles underlying the financial modelling assumptions in determining Network Rail's revenue requirement;
- our treatment of pensions and corporation tax;
- our approach to rolling forward the RAB during CP4;
- our decisions on the introduction of a rolling capex incentive mechanism; and
- the balance between network grants and track access charges for CP4.

4.5 We would particularly welcome your views on our preferred approach to the rules governing the ring-fenced fund and the interaction with the re-opener provisions.

4.6 Providing more details of the financial framework should give Network Rail a greater degree of certainty and allow it to plan its financing strategy efficiently.

4.7 In developing our decisions, we have taken into account the views of stakeholders. In particular, we have worked closely with Network Rail, DfT and Transport Scotland in an attempt to establish a financial framework that meets our objectives whilst also considering the requirements of others.

4.8 Our decisions on the values/levels for all the elements of the financial framework will be determined as part of our overall package of determinations for CP4. We will set these out for consultation in our draft determinations.

Background

4.9 Network Rail's ultimate parent company is a company limited by guarantee (CLG) and Network Rail benefits from a government guarantee of its debt through the FIM. In our July 2006 consultation document on incentives, we stated that the company's current financial structure materially weakens the role of financial incentives facing Network Rail at the corporate level.[19] We therefore proposed to establish a financial framework for Network Rail that strengthens financial incentives at the corporate level.

4.10 In our advice to Ministers, we set out our decisions on the high-level financial framework for Network Rail in CP4. We stated that:

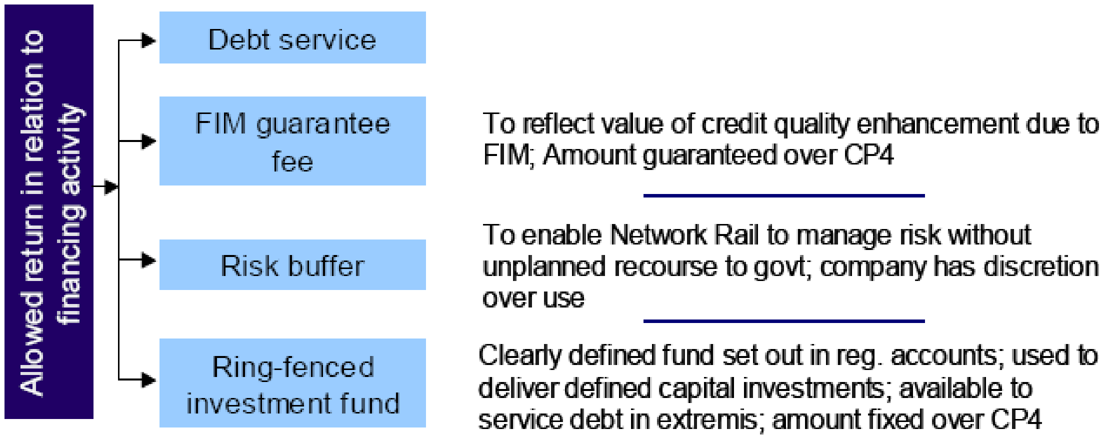
- we support Network Rail's intention that the use of the FIM will be restricted from the start of CP4 so that it can only be used to refinance existing debt. This means that Network Rail will need to raise debt on an unsupported basis from early in CP4;
- Network Rail will be required to pay to DfT, as provider of the FIM, a fee that reflects the value of the credit quality enhancement received as a result of the guarantee. This fee will be payable annually on the nominal value of outstanding FIM-backed debt;
- Network Rail will be provided with an allowed return that reflects its risk adjusted cost of capital;
- part of the allowed return will be required to meet Network Rail's financing costs (including the FIM fee). The remainder will be split between:
    - o a risk buffer, to enable Network Rail to manage business risk and normal fluctuations in cash flow. To the extent that Network Rail does not use this risk buffer to meet fluctuations in cash flow, it will have discretion over its use, subject to agreed principles, which we will set out in our draft determinations; and

[19] *Enhancing Incentives for Continuous Improvements in Performance*, Office of Rail Regulation, July 2006. This may be accessed at www.rail-reg.gov.uk/upload/pdf/298.pdf. The document provides greater analysis of the impact of the current financial structure on incentives.

- o a ring-fenced investment fund, which will be earmarked to deliver HLOS outputs except in instances of severe underperformance by Network Rail.

4.11 Figure 4.1 illustrates this approach.

Figure 4.1: Allocation of the allowed return



4.12 Raising unsupported debt represents a key milestone in Network Rail's progress towards financial independence. It is also central to our objective of improving the incentives facing the company. This is because it will introduce both a hard budget constraint on Network Rail and greater external scrutiny of its performance.

4.13 The hard budget constraint is achieved by imposing a limit to the extent that Network Rail is able to raise additional debt. The 'hardness' of the limit will depend on both our determinations for CP4 and Network Rail's performance. For instance, significant overspends on operating expenditure could be expected to reduce materially Network Rail's ability to raise additional debt, whilst outperformance – either operationally or financially – of the regulatory assumptions could be expected to increase its capacity to raise debt.

4.14 The greater external scrutiny will result from lenders to Network Rail having money that is at risk. Consequently, lenders can be expected to take far greater interest in Network Rail's performance, both financial and operational. Signs of systematic issues are likely to result in lenders asking probing questions of Network Rail and insisting on more onerous arrangements for providing finance, in terms of data provision and rights, as well as the overall cost of debt. We have begun discussions with lenders and the indication so far is that this would be their approach.

4.15 The financial framework should also ensure that any financial surpluses are used efficiently and benefit customers and funders. (The impact on incentives is described more fully in our advice to Ministers (paragraphs 7.14 – 7.16).)

4.16 We are strongly of the view that our proposals offer value for money. This is because even the modest rise in the level of efficiency that we can expect Network Rail to achieve as a result of the new financial framework is expected to result in savings greater than the additional costs of unsupported debt.[20]

4.17 The stronger incentives resulting from the new financial framework will complement both the existing, and the new, financial and reputational incentives on Network Rail's management. They are not intended to replace them. Indeed, our monitoring of Network Rail's performance and the management incentive plan remain core components of the package of incentives facing Network Rail. We are considering how each of these could be further strengthened. (Our plan to review the management incentive plan is explained further in chapter 3.)

Implementing the restriction of use of the FIM

4.18 We support Network Rail's intention that the use of the FIM will be restricted from the start of CP4. Any additional debt will need to be raised on an unsupported basis. To implement the restriction, we propose to make it a condition of Network Rail's licence that the company does not draw on the FIM to raise additional debt after 31 March 2009.

Rules governing the ring-fenced investment fund

4.19 We set out in our advice to Ministers that a part of Network Rail's allowed return will be allocated to a ring-fenced investment fund (RFF). The RFF will be a virtual fund, specified for England & Wales and for Scotland separately, earmarked to deliver specific projects specified by each government. It will be 'virtual' in the sense that it will be identified explicitly in Network Rail's

[20] We commissioned NERA to undertake a study to estimate the extent to which we could expect Network Rail to achieve greater efficiency gains as a result of the envisaged changes to the financial framework. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-isbp-nera.pdf.

regulatory accounts but will otherwise simply be another part of the company's income.[21]

4.20 The RFF will be used to deliver defined projects that are required to deliver the HLOSs, except in cases of extreme underperformance by Network Rail. Under defined circumstances, Network Rail will be able to defer projects in the RFF to relieve financial pressures.

4.21 Under our current estimates the fund will average up to 11% of enhancement expenditure and up to 3% of total OMR&E expenditure during CP4 (for GB as a whole).

4.22 If the RFF is to have the intended incentive properties, it is important that the detailed rules governing the fund are appropriately defined. Our preferred approach is set out below. We would welcome your views on this.

Requirements on Network Rail to deliver ring-fenced fund projects

4.23 Under its network licence, Network Rail will be required to deliver all HLOS and other required outputs (subject to the specified change mechanisms referred to in chapter 3). Failure to deliver required outputs may constitute a breach of licence, in which case we would take action in accordance with our enforcement policy.[22]

4.24 However, Network Rail will be able to defer delivery of RFF projects under defined circumstances. Should Network Rail's costs be significantly greater than those assumed in our regulatory determination, leading to difficulties in financing its business, the company will be able to defer projects to meet this overspend in line with the provisions of the RFF.

Defining the outputs contained in the ring-fenced fund

4.25 DfT and Transport Scotland will need to determine which projects sit within the RFF and to prioritise these.

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[21] Creating an actual fund for the RFF that sets aside cash that Network Rail then draws down to deliver specified projects would, in our view, unnecessarily constrain the company's ability to manage its business efficiently.

[22] *Economic Enforcement Policy and Penalties Statement*, Office of Rail Regulation, April 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/287a.pdf.

4.26 Defining precisely upfront which projects sit in the RFF is difficult. This is because the chosen projects need to match the RFF in terms of both size and profile. In the event that Network Rail does need to defer projects in the RFF, the governments may well need to update the list of deferrable projects in light of revised priorities and/or differences between Network Rail's actual and proposed work profiles.

4.27 We have therefore proposed to the governments that, upfront, they indicate only at a high level the types of projects that they would envisage sitting in the RFF. Should Network Rail need to defer RFF projects, it would then ask (one or both) the governments to set out their priorities in detail. This would need to be done within a limited time frame in order to enable Network Rail to manage the process efficiently. If the governments were not to specify the projects to be deferred within the allotted time, Network Rail would then have discretion to defer projects up to the value of the RFF.

Dealing with Network Rail overspend

4.28 Network Rail's allowed revenues for CP4 will be based on our judgements on the expenditure necessary to deliver the required outputs efficiently. The revenues will be sufficient, in our view, to enable the company to achieve a comfortable investment grade credit rating, and will therefore provide the company with the capacity to absorb some fluctuations in cash flow through increased borrowing.

4.29 If Network Rail meets or exceeds the regulatory assumptions in CP4, all specified outputs would be delivered, including RFF projects.

4.30 Should Network Rail start to overspend, we would expect it to accommodate this by using the capacity provided to it through our determinations to raise additional debt. The extent of this capacity, determined by the financial markets, will depend both on our determinations and the reason for any overspend. This finite borrowing capacity is very different to the position that exists in CP3, where, due to the government guarantee, borrowing capacity to fund overspends is effectively without limit (subject to the licence condition which prohibits Network Rail's financial indebtedness exceeding the value of the RAB).

4.31 From the start of CP4, we will introduce an explicit logging up mechanism for efficiently incurred capex (i.e. renewals and enhancements) overspend (discussed further below). Consequently, where Network Rail has overspent efficiently on capex, the company will receive early assurance that it will be remunerated for this in the next control period (though it will need to finance the overspend within the control period). This mechanism should provide Network Rail with additional borrowing capacity within the control period.

4.32 Should Network Rail's overspend be sufficiently large to exhaust its ability to fund any overspend efficiently within the capacity for borrowing provided by our determinations, including that provided by the logging up arrangements, it is expected that the determinations would need to be re-opened.

4.33 We will then make an estimate of the efficiency of Network Rail's overspend. To the extent that it is efficient, we would expect to make an adjustment to Network Rail's required outputs and / or allowed revenues via an access charges review. To the extent that we conclude that the overspend is inefficient, there would not be any such adjustment.

4.34 If the overspend is deemed inefficient, Network Rail would then need to defer projects in the RFF in order to free up funds to finance the overspend. At the same time, it would need to provide us with a recovery plan, that:

- states the actions it has taken and is taking to bring costs back under control, and;
- indicates when the deferred HLOS projects sitting within the RFF are likely to be re-instated.

4.35 It would clearly be possible to re-order this sequence of events so that Network Rail defers RFF projects ahead of triggering the re-opener. While this might provide some benefits in terms of the stronger incentives on Network Rail (the company would have strong reputational incentives not to be in a position where it has to defer HLOS outputs), it could leave government more exposed to RFF projects being deferred, even where Network Rail's overspend is efficient.

Triggering the re-opener

4.36 Network Rail will be deemed to have exhausted its capacity to raise additional debt – and therefore trigger the re-opener – at the point that it expects to lose its investment grade credit rating in the absence of additional funding, a reduction in outputs or a deferral of RFF projects.

4.37 We recognise that Network Rail could be expected to raise debt even without an investment grade credit rating. However, there is a question as to whether this would be efficient given that the cost of sub-investment grade debt is significantly higher than that of investment grade debt.

4.38 There are a number of ways in which we could define the point at which Network Rail is unable to raise debt efficiently. In the interests of simplicity, our preferred approach is to put the onus on Network Rail to notify us that, based on audited projections, this point was expected to be reached. The directors of Network Rail are already required by the network licence to provide a statement each year that it has adequate resources (including financial resources) to carry out its activities for an 18-month forward-looking period. A statement from Network Rail saying that it did not expect to have adequate resources would need to be accompanied by supporting evidence, including that its projected financial ratios are not consistent with retaining an investment grade credit rating in the absence of an adjustment to revenues and/or outputs (via an access charges review), or a deferral in RFF projects.

4.39 We intend to test this approach with the credit rating agencies and lenders before we complete our draft determinations.

4.40 Although the onus would be on Network Rail to notify us that it had triggered a re-opener, our regular monitoring of the company should provide early warning of impending difficulties. For instance, we already monitor Network Rail's expenditure on a quarterly basis.[23] We also assess Network Rail's performance against the regulatory efficiency assumptions on an annual basis. The efficiency analysis included in our annual assessment currently provides our assessment of Network Rail's performance for OM&R,[24] but will be expanded to cover enhancement expenditure under the logging up mechanism.

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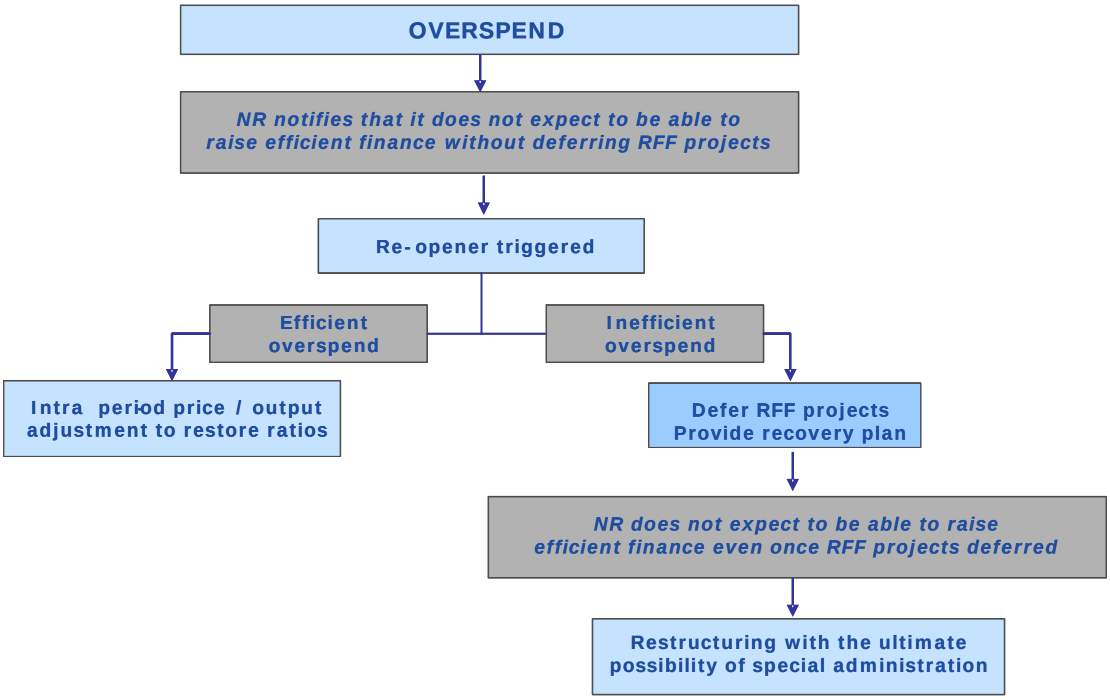
[23] Our most recent Network Rail Quarterly Monitor may be accessed at http://www.rail-reg.gov.uk/upload/pdf/273.pdf.

[24] Our latest assessment of Network Rail's performance on efficiency can be found in chapter 8 of our *Annual Assessment of Network Rail 2006-07*, Office of Rail Regulation, September 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/339.pdf.

4.41 The sequence of events in the case of Network Rail significantly overspending versus its determination in CP4 is illustrated in figure 4.2, based on our current preferred approach.

Figure 4.2: Sequence of events following significant overspend



4.42 An alternative approach to setting the re-opener trigger would be to be more prescriptive and set out upfront threshold levels for key financial ratios (e.g. the net debt to RAB ratio) or threshold levels of overspend. If Network Rail breached, or expected to breach in CP4, these levels the re-opener would be triggered enabling us to carry out an access charges review.[25]

4.43 Such an approach could potentially be advantageous in terms of creating greater clarity on the point that the re-opener would trigger. However, it has the disadvantage of being both more complex upfront (in terms of defining appropriate ratio or expenditure levels) and potentially resulting in the re-opener being triggered ahead of, or after, Network Rail expects to encounter difficulties in financing its business efficiently.

4.44 We will finalise precisely how the re-opener will be triggered in our draft determinations.

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25 It would be possible to estimate the percentage deviation in Network Rail's expenditure that would be necessary to trigger these threshold levels, which could then form the basis of a re-opener trigger. However, the match would not be perfect.

Consequences for Network Rail of deferral of RFF projects

4.45 There will be strong incentives for Network Rail to avoid deferring projects that are necessary to deliver the HLOS outputs. There would clearly be adverse consequences for Network Rail if it defers projects within the RFF, not least the extensive reputational damage that the company and its management would suffer.

4.46 It is likely that managers' remuneration will already have been adversely affected before projects within the RFF are deferred, since financial under-performance will be reflected in the 'financial efficiency index' contained in the management incentive plan. Nevertheless, we believe that there is merit in Network Rail including within its MIP a direct link to the deferral of RFF projects. This would mean that Network Rail managers' bonuses would be directly and adversely affected by the deferral of RFF projects.

4.47 We are also considering whether the FIM fee payable by Network Rail to DfT should increase in the event that Network Rail defers RFF projects. This would reflect the increased risk to government, as provider of the financial guarantee, resulting from the deterioration in Network Rail's financial position.

Disaggregating for England & Wales and Scotland

4.48 Within the framework for dealing with Network Rail overspend outlined above, it is important that the way in which this disaggregates for England & Wales and Scotland is clearly set out and is consistent with our framework for disaggregating the regulatory determination as a whole.[26] It is important to be able to account separately for the relative performance in each geographic area. Indeed, this is a key part of our framework for setting access charges, given the separation for setting railway strategy and funding rail between England & Wales and Scotland.

4.49 Network Rail finances itself as a single GB-wide entity. However, consistent with our approach to PR08 as a whole, the RFF and risk buffer will both be disaggregated on a notional basis.

4.50 Should Network Rail need to defer RFF projects, the split between England & Wales projects deferred and Scotland projects deferred would reflect the

[26] *ORR's approach to regulation in Scotland: Conclusions*, Office of Rail Regulation, December 2005. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/267.pdf.

proportionate inefficient overspend compared to our determinations in each geographic area. Should the inefficient overspend be attributable entirely to one geographical area, say England & Wales, then only England & Wales RFF projects would be deferred in the first instance. However, if the overspend were sufficiently large, all RFF projects, including Scottish projects, would be at risk.

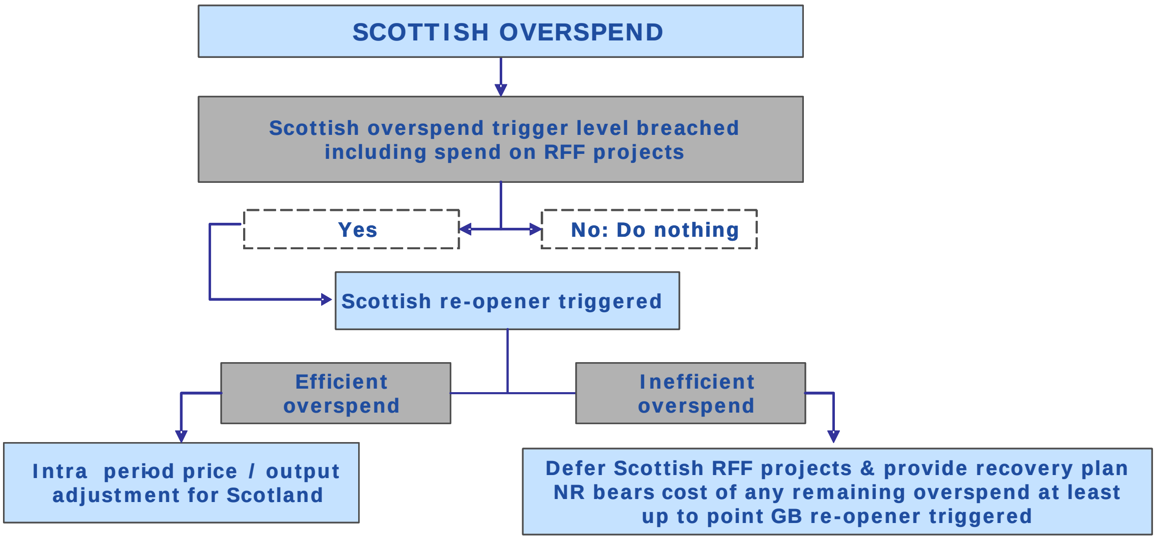
Separate re-opener provision for Scotland

4.51 Given the comparatively small size of the Scottish component of the overall determinations for Network Rail, it is possible that the company could incur considerable overspend in Scotland without triggering the GB-wide re-opener. As we have said in previous documents, we therefore consider that it is appropriate for there to be a separate re-opener provision for Scotland, which would be triggered ahead of the GB-wide re-opener. However, due to the relative size of England & Wales to the overall determination, we do not think that there needs to be a separate re-opener provision for England & Wales.

4.52 The trigger for this will need to be defined in terms of a percentage deviation in Scottish spend versus the Scotland component of the determination. This is because Network Rail finances itself on a GB basis, and so we cannot use the simple approach that we are proposing for GB.

4.53 The sequence of events would then be consistent with that under the GB-wide provisions. Therefore, should the Scotland re-opener be triggered, we would make an assessment of the efficiency of Network Rail’s overspend in Scotland. If we deem it to be efficient, there would be an adjustment to Scottish outputs and/or revenues. If we deem it to be inefficient, Network Rail would need to defer projects in the Scottish RFF. Once these are exhausted, Network Rail would have to bear the cost of overspend, at least to the point at which the GB-wide re-opener is triggered. This sequence of events is illustrated in figure 4.3.

Figure 4.3: Sequence of events following significant overspend in Scotland



4.54 In order for the incentives on Network Rail with respect to overspend to be equalised between England & Wales and Scotland, we propose that the percentage deviation in spend necessary to trigger the Scotland re-opener is based on an estimate of the percentage deviation in GB spend necessary to trigger the GB-wide re-opener.

4.55 Deferral of projects in the Scottish RFF would trigger consequences for Network Rail as set out above.

Indexation of the allowed return

4.56 In our September 2006 consultation on the treatment of risk and uncertainty,[27] we consulted on the possibility of indexing a part of the allowed return to a pre-determined benchmark. The purpose of indexation would be to reduce the interest rate risk facing Network Rail, and therefore enable us to take a less cautious approach to setting the allowed return. Indexation was not generally supported by respondents.[28]

4.57 Since then we commissioned work, jointly with Ofwat, to explore the merits and practicalities of indexing elements of the allowed return to an appropriate

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[27] *Periodic review 2008: The treatment of risk and uncertainty*, Office of Rail Regulation, September 2006. This may be accessed at www.rail-reg.gov.uk/upload/pdf/pr08-risk-let-280906.pdf.

[28] The responses may be accessed at www.rail-reg.gov.uk/server/show/ConWebDoc.8512.

benchmark.[29] Following consideration of the consultants report and further discussions with both Network Rail and governments, we have decided not to index Network Rail's allowed return in CP4. This is because we consider that such an approach would introduce an additional layer of regulatory complexity without clear compensating benefits.

Cost of capital

4.58 Our September 2007 financial issues update and further consultation letter (September letter) said that CEPA's suggested range for the cost of capital was 4.1% - 4.7%, (real vanilla). We are doing further work on sizing the various components of the allowed return and we are intending to update CEPA's study before we finalise our draft determinations.

The financial structure modelling assumptions for determining Network Rail's revenue requirement

4.59 We said in our advice to Ministers that when we determine Network Rail's cost of debt within the overall cost of capital we intend to take into consideration the type of financing strategy that an efficiently financed regulated utility could be expected to have in place based on historic, present and forward looking market conditions.

4.60 We have decided to use the above approach to determine Network Rail's cost of debt for the cost of capital calculation and we also intend to use this approach in CP4 to determine Network Rail's interest costs for the purposes of sizing the ring-fenced investment fund and calculating the interest cost assumption used in the calculation of the corporation tax allowance, corporation tax payments and to consider financeability issues.

4.61 Our September letter consulted on whether we should base determination of the interest cost assumption on:

- notional debt (i.e. reflecting an efficient gearing level as used to determine the risk-adjusted cost of capital);

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[29] Our letter on indexation may be accessed at http://www.rail-reg.gov.uk/upload/pdf/PR08-indexation_reg_let_181007.pdf. CEPA's report on indexation *Indexing the allowed rate of return,* CEPA, September 2007 may be accessed at http://www.rail-reg.gov.uk/upload/pdf/PR08_cepa_final.pdf.

- a roll forward of the access charges review 2003 (ACR2003) debt assumption; or
- use actual debt.[30]

4.62 All of these options have some merit and differing incentive properties. All respondents to the September letter favoured using actual debt. On balance, due to the importance of Network Rail facing a hard budget constraint in CP4 and that the forecast level of actual debt at 1 April 2009, for the purposes of this decision, is reasonable and generally in line with the gearing of an efficiently financed company with similar risk characteristics as Network Rail, we have decided to use actual debt when forecasting interest costs for the purpose of sizing the ring-fenced investment fund in CP4. For similar reasons, in CP4 we intend to use actual debt to calculate the interest cost assumption used in the calculation of the corporation tax allowance, corporation tax payments and to consider financeability issues.

4.63 In CP5, for the purpose of sizing the ring-fenced investment fund, calculating the interest cost assumption used in the calculation of the corporation tax allowance, corporation tax payments and to consider financeability issues, we intend to roll forward the debt assumption used in CP4 for efficient movements in debt.

Financeability

4.64 The September letter said that we will ensure that the decisions we take on the incentive and financial frameworks for PR08 (e.g. providing a risk-adjusted cost of capital) would allow an efficient Network Rail to finance its activities. We will satisfy ourselves that Network Rail can finance its activities by assessing whether our determination would allow an efficient company to secure a comfortable investment grade credit rating. This is consistent with the approach of other regulators. Respondents to the September 2007 financial issues update and further consultation letter generally supported this approach.

[30] In practice, this will be a forecast of the actual level of debt at 1 April 2009. Any adjustments necessary as a result of a variance between the forecast and actual levels of debt at 1 April 2009, would be made at the next periodic review to take effect in CP5.

4.65 We are discussing with Network Rail, the governments and the credit rating agencies which financial indicators to use in the assessment, how they are defined and the levels that are appropriate to achieve a comfortable investment grade credit rating.

4.66 We have also employed consultants to examine some of these issues and are doing some modelling of risk to inform our decisions on financeability, which we will set out in our draft determinations.

RAB roll forward

4.67 The RAB is a key building block in our methodology for determining access charges since it forms the basis for calculating the level of allowed return.

RAB roll forward in CP3

4.68 The September letter said that we intend to retain the high-level principles adopted for CP3 in CP4. The consultation responses were supportive and so we have decided that we will retain these high-level principles for CP4.

4.69 We are also working on ensuring that the RAB additions are in line with the CP3 policies e.g. the boundary between renewals/enhancements and maintenance is the same as we used in ACR2003 and the capitalisation of overheads is on the same basis as in ACR2003.

4.70 We will also make an adjustment (including where relevant the associated capitalised financing) that will take account, where appropriate, of the difference between the final outturn figures for CP3 shown in the 2008-09 regulatory accounts and the forecast 2008-09 RAB additions and net debt movements used in our October 2008 final determinations document. As part of our on-going regulation of Network Rail, we will also ensure that if it fails to deliver any required outputs in CP3, then it will not retain the associated financial benefit.

RAB roll forward in CP4

4.71 Generally, ex ante forecast renewals and enhancement expenditure is added to the RAB in CP3 and adjustments are not made for actual efficiently incurred expenditure. This provides Network Rail with a strong incentive and correspondingly higher risk as it retains all the benefits of outperformance but bears the costs of overspend. We considered that this policy provided an appropriate balance between incentives and risk in CP3, in the wider context of the other financial protections for Network Rail in the regulatory framework.

4.72 Our September letter consulted on adopting an alternative approach for CP4 more in line with the approaches other regulators have adopted. These approaches usually allow for the possibility of an adjustment to the RAB to be made reflecting actual expenditure,[31] but vary in how the rules are applied, i.e. either based on a judgement of efficient overspend or a mechanistic approach (for instance disallow 25% of an overspend).

4.73 After considering these issues and the responses, we have decided that in order to provide a more appropriate balance between incentives and risk, that we will add actual efficient capital expenditure to the RAB in CP4 (via an adjustment to the RAB at the beginning of CP5). Respondents to our September 2007 letter generally agreed with this approach but Network Rail, whilst agreeing that actual capital expenditure should be added to the RAB, did not think an efficiency assessment is appropriate. We will clarify the scope of the efficiency assessment in our draft determinations.

Rolling capex incentive

4.74 Network Rail’s capex incentives in CP3 vary slightly for each year of CP3, as the earlier in the control period the company outperforms our assumptions the lower their financing costs will be.

4.75 Having different incentives in each year of a control period is not desirable. Adding actual efficient capex to the RAB can magnify the effect of these different incentives because, in simple terms, the reward for outperforming in year one of a control period is five year’s amortisation and allowed return on that saving. If the company outperforms in year five they gain one year’s amortisation and allowed return on that saving. In this situation, the company would make a greater reward from a saving in year one than in year five, hence the incentives to make savings decline over the life of the control period.

[31] An example of this would be: if forecast capital expenditure was 100 in year five of the control period but actual expenditure was 90, then as part of rolling the RAB forward to the start of the next control period, 90 would be the addition to the RAB for that year.

4.76 Therefore, we have decided to introduce a smoothing mechanism to equalise capex incentives, so that Network Rail has (as far as possible) the same incentive to outperform in each year of CP4. Respondents to our September letter supported this approach.

4.77 We will set out further detail for this mechanism in our draft determinations.

Non-capex additions to the RAB

4.78 Our September letter said that we have previously added, or agreed to add, non-capex items to the RAB. These principally relate to three main types of issue: overspend incurred by Railtrack and Network Rail following the Hatfield accident; revenue deferral; and incentive payments.

4.79 We have decided not to add non-capex additions to the RAB in CP4 and incentive payments will be made via an operating expenditure (opex) style memorandum account. This would work by ‘logging up’ the payment to the account during the control period. Monies could then be released from this account over an appropriate period of time. In normal circumstances, this would either be in the first year of the subsequent control period or spread across the control period. In exceptional circumstances, a longer period of time could be used. Respondents to our September consultation letter supported this approach.

4.80 Our September 2007 financial issues letter also discussed the use of Network Rail’s accounting policies as the basis for defining what can be added to the RAB as renewals and enhancements and the treatment of reactive maintenance.

4.81 We have decided that for the calculation of the RAB and the revenue requirement for CP4 we, where appropriate, will use Network Rail’s accounting policies as the basis for defining what can be added to the RAB as renewals and enhancements as this is a transparent and easy to understand approach.

4.82 This means we will remunerate reactive maintenance costs in the year concerned (i.e. treat them in the same way as operating and other maintenance costs). Respondents to the September 2007 financial issues update and further consultation letter supported this approach.

4.83 We accept the proposals put forward by DfT and Network Rail for a specific approach to the treatment of enhancement expenditure on the Thameslink programme, by far the largest enhancement programme to be delivered in CP4 (and extending into CP5). There will be a target price that, ex-ante, will be added to the RAB in CP4. Network Rail will then retain a share of any underspend and bear a share of any overspend, subject to a liability cap. The RAB will be adjusted at the start of CP5 to reflect these arrangements. We will determine the appropriate size of the pain and gain shares as part of our draft determination. These arrangements incorporate strong incentives for Network Rail to deliver the project within the target price but will ensure that Network Rail's financial viability is not compromised if this one project goes significantly over budget.

Amortisation

4.84 We have already established the key principles we will use to derive the level of the amortisation charge. Amortisation in CP4 will be based on long-run steady state renewals, as we set out in September 2006.[32] Our advice to Ministers also clarified that, in addition, we will be amortising the non-capex element of the RAB.

4.85 The CP4 amortisation charge in our draft determinations will be based on a reasonable level of long-run steady-state renewals and will take account of our assessment of the scope for future efficiency improvement. Where appropriate we will take account of Network Rail's SBP update.

Corporation tax

4.86 Corporation tax is a normal business cost and as such is one of the building blocks of the revenue requirement. Regulators have traditionally allowed for corporation tax by providing a tax wedge in the cost of capital. However, some regulators have now started to change their approach and allow a specific corporation tax allowance. The September letter said that we intend to provide Network Rail with a specific ex ante corporation tax allowance. We have decided to adopt this approach in CP4.

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32 *Approach to the amortisation of Network Rail's regulatory asset base*, Office of Rail Regulation, September 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-amortisation-let-290906.pdf.

4.87 All respondents to our September 2007 letter supported this approach, although Network Rail suggested that there might be some issues that might require an ex-post adjustment. We do not agree that there are specific issues that we would need to adjust for, if we have adopted an ex-ante approach for CP4. However, in determining the overall power of the incentives on Network Rail we will decide on our approach to the roll forward of corporation tax balances into CP5 in the June 2008 draft determinations document.

4.88 By moving to an approach whereby Network Rail is paid for its expected corporation tax liabilities, it could be argued that the company will have been paid twice for some of its future corporation tax liabilities (since Network Rail was implicitly provided with a 'tax wedge' in the cost of capital for CP3 but is forecasting to only pay a very small amount of corporation tax in CP3).

4.89 The Competition Commission (CC) has said in a recent document[33] that they would make an adjustment for the double counting of tax where a regulator changed its approach to the allowance for corporation tax. The CC made this comment in relation to an issue similar to Network Rail's CP3 corporation tax allowance issue. The DfT and TS have said in their responses that they support making an adjustment for this double counting. Network Rail has said that it recognises that there may be a theoretical argument for an adjustment in relation to the period since April 2004, but it is not clear what if any adjustment should be made, as there are practical issues in determining what the adjustment should be.

4.90 We recognise some of the practical issues Network Rail refers to but we think that, in principle, we should adjust for the double counting of corporation tax allowances in CP3. We will make this adjustment by holding the amount of the estimated double count on account and only start funding Network Rail for corporation tax when this account has been exhausted by actual corporation tax payments.

4.91 There are a number of challenges with determining the amount of the double count, for example the size of the tax wedge included in the allowed return for CP3 is not explicit. We will include in our draft determinations document our

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[33] *BAA Ltd – A report on economic regulation of the London Airport companies (Heathrow and Gatwick Airport Ltd)*, Competition Commission, September 2007. This may be accessed at http://www.caa.co.uk/default.aspx?catid=5&pagetype=90&pageid=8779.

view of the amount of the double count. Taking the holding on account approach minimises the effect of this adjustment on financeability issues in CP4.

The balance between network grant and track access charges

4.92 Network Rail's income currently comes from a number of sources: access charges from passenger and freight train operating companies, other income (e.g. from property) and network grants paid by the governments to Network Rail. One of our tasks in PR08 is to determine the balance of Network Rail's income between access charges and network grants.

4.93 Our preferred method of funding Network Rail is for all its income to come from TOCs, freight operating companies (FOCs) and other customers. However, we must have regard to the financial position of the Secretary of State and Scottish Ministers when we are conducting an access charges review. The governments have told us that it is not possible to make changes to government accounting rules and the HLOSs give a clear role for the governments in respect of their relationship to Network Rail.[34]

4.94 We have decided to continue to allow government to pay network grants to Network Rail in CP4. All respondents to our September 2007 letter supported this approach.

4.95 In order to determine the level of network grant, we have decided that it is appropriate to be consistent and retain the approach used in CP3, where the government accounting rules for both the investment and the market body tests are used to determine the ex ante level of network grants. We will allow sufficient headroom above the level of network grants to accommodate a prudent level of cost and income fluctuations so that the rules are not breached if outturn income and expenditure are different to those set out in our determinations. Respondents to the September letter supported this approach.

4.96 We consider that the governments should be able to know their ex-ante position on the levels of CP4 network grant payments, in the context of a

[34] The accounting rules that governments throughout the European Union must adhere to, do not allow grants to the private sector to be accounted for as capital formation, unless paid directly to the private sector entity undertaking the capital formation. Therefore, such grants cannot be routed through the TOCs.

reasonably firm understanding of Network Rail's CP4 expenditure and income forecasts determined through PR08 (taking into account a prudent level of headroom). We consider that the benefits to the governments of having the facility to make adjustments to this position are outweighed by the administrative burden and the possible perception that Network Rail's accountability to its train operator customers is weakened. Therefore, once we have set out the schedule of network grant payments for CP4 as part of PR08, we do not consider that it is appropriate or necessary to allow adjustments during CP4. Respondents to our September letter supported this approach.

Grant dilution

4.97 Current track access contracts include a grant dilution provision that provides for increases in track access charges, if the governments do not pay network grants according to a pre-determined schedule, to ensure that Network Rail recovers its required revenue.[35]

4.98 In order to ensure that Network Rail can finance its activities in the unlikely situation where the governments were not meeting their funding obligations, our intention is to retain the grant dilution provision, or a similar provision, in track access contracts for CP4. No respondents to the September letter objected to this proposal.

Pensions

4.99 The September letter said that given the difference in Network Rail's pension arrangements and liabilities compared with other comparable companies, there is less of a need for us to have a specific set of policies for the treatment of pension costs. Therefore, instead of using a specific approach, we have decided to treat pensions in the same way as any other operating cost.

4.100 As our determination will include efficient assumptions for all costs, we are reviewing Network Rail's overall employment costs against appropriate benchmarks and we will include an assumption of Network Rail's total efficient employment costs in the determination of the revenue requirement. All respondents to the September letter supported this approach but Network Rail

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[35] Part 3A of Schedule 7 of the track access contracts also includes provisions that automatically increase track access charges when conditions are placed on the payment of network grants.

mentioned that we should take account of the position they inherited. We do not consider that the issue raised by Network Rail is relevant given that we will be benchmarking overall employment costs.

The treatment of inflation

4.101 In our advice to Ministers we proposed to continue to use RPI to adjust Network Rail's allowed revenue in the year concerned. After further discussions with Network Rail and the governments we said in the September letter that on balance, this approach is more appropriate than making an ex-ante assumption of inflation in our determinations and then making ex-post adjustments at the start of CP5. We consider that the additional financial risk that would be imposed on Network Rail by including an ex-ante estimate of inflation in our determination of the required revenue and logging up/down any variation between actual inflation and the ex-ante assumption (even if only for the direct government network grants) outweighs the benefits to the governments of increased budgetary certainty.

4.102 Adjusting Network Rail's allowed revenue by RPI in the year concerned is in line with regulatory best practice and is the way Network Rail's allowed revenue is presently adjusted. After considering the responses to the September letter we have decided that we will adjust Network Rail's allowed revenue by RPI in the year concerned. Network Rail was strongly in favour of this approach and no respondents to the September letter objected to this proposal.

Re-openers

4.103 There are currently a number of re-openers in franchised train operators' access contracts with Network Rail. These re-openers enable us, under particular circumstances, or for particular specified purposes, to consider carrying out an access charges review where changes made in that review could have effect before the end of the current control period.[36]

4.104 Our September 2007 letter said that we intended to retain both the 'material change in circumstances' re-opener and the 'quantified re-opener'. We also

[36] In franchised passenger operators' contracts these provisions are set out in Part 7 of Schedule 7. Freight operators and some non-franchised passenger operators have different arrangements in Schedule 7 of their track access contracts.

proposed to alter the definition of the quantified re-opener, to widen its scope.[37] This approach was generally supported by respondents.

4.105 We also stated in our advice to Ministers that we would specify separate re-opener provisions for both England & Wales and Scotland, in line with our overall approach to establishing separate price controls.

4.106 We have since further developed our thinking on the financial framework and, in particular, on the RFF. As discussed above, it is important that the re-opener provisions are consistent with the workings of the RFF. In particular, our proposed approach to the RFF set out above allows for a re-opener to be triggered at the point that Network Rail expects to be unable to finance its activities efficiently in the absence of a change to revenues and/or outputs or a deferral of RFF projects.

4.107 We therefore consider that it is appropriate that the quantified re-opener is defined in terms of the point at which this is reached. As noted above, this could be done in a number of ways. However, our preferred approach, subject to market testing, is to put the onus on Network Rail to notify us that, based on audited projections, this point was expected to be reached.

4.108 This re-opener could be defined separately or as a specific circumstance within the material change in circumstances re-opener.

4.109 Although not explicitly a quantified re-opener to the extent that no specific numerical threshold is specified, such an approach would operate in the same way as a quantified re-opener. This is because it would be triggered when Network Rail expects to overspend[38] to such an extent versus it determination that it can no-longer raise finance efficiently. As noted above, it is possible to estimate the percentage deviation in expenditure necessary to reach this point. However, it would necessarily be only an estimate as the precise point would depend on financial market conditions.

[37] These re-openers are: where there is a material change in the circumstances of Network Rail or in relevant financial markets and in consequence there are compelling reasons to initiate an access charges review; and when Network Rail's cumulative expenditure is higher or lower by more than 15% than the previous access charge review's determination.

[38] Where this overspend includes access charges income, other single till income, corporation tax and financing costs as well as expenditure on OM&R and expenditure on allowed enhancement projects.

4.110 We do not, therefore, believe that it would be appropriate to retain an additional quantified re-opener based on a percentage deviation in Network Rail's spend versus the determination either at the GB level or for England & Wales.

4.111 As set out above, we do however believe it is appropriate to retain an explicit quantified re-opener for Scotland. The percentage deviation necessary to trigger the Scotland re-opener should be set to equalise incentives between Scotland and England & Wales.

4.112 We will set out the specific definitions of the re-openers in our draft determinations in June 2008, as they need to be considered in conjunction with all the other elements of the revenue requirement and the PR08 framework.

4.113 We propose to insert a re-opener in non-franchised passenger contracts[39] and freight operators' track access contracts so that these may be re-opened at the end of each control period.[40] This will enable changes made at future periodic reviews to be implemented. We consider that a re-opener at the end of each control period is appropriate because:

- it will ensure consistency between freight and all passenger operators;
- it will allow freight operators and non-franchised passenger operators to realise a benefit from efficiency gains made by Network Rail; and
- it will provide a reasonable degree of assurance to freight operators and non-franchised passenger operators that costs will be consistent over a period of time.

4.114 We are still considering whether freight operators' track access contracts should retain the 'material change' provision currently included and whether it should be included in non-franchised passenger operators' track access contracts. We intend to set out our decision in our draft determinations and it will in part be informed by the wider decision on re-openers.

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[39] Where we are implementing the contractual changes resulting from the review.

[40] Using the same form as that set out in Part 7 of Schedule 7 of franchised passenger operators' track access contracts.

4.115 As they are no longer relevant, we have decided to remove the current specific CP3 re-openers from franchised passenger operators' contracts, with the exception of a specific re-opener related to the introduction of on-train metering or the introduction of competing suppliers of electricity for traction as this would allow us to review the charging arrangements in CP4. Respondents to the September 2007 letter supported this approach.

Financial ring-fence

4.116 As part of the financial framework and in conjunction with the licence review we will also be reviewing the financial ring-fence. There are three main reasons for this:

- where appropriate update the financial ring-fence for best practice;
- take appropriate account of Network Rail's corporate/industry status and relationship with government, e.g. the proposed benefit sharing arrangements may require a change to Network Rail's licence; and
- reflect any appropriate changes required as a result of Network Rail's unsupported debt policy e.g. restriction of the FIM and other appropriate PR08 issues, e.g. the rules for de-minimis activity in CP4.

5. Contractual and financial incentives

Introduction

5.1 This chapter provides an update on the work to review the contractual incentives that are contained in Schedules 4 and 8 of train operator track access contracts, which cover, respectively the possessions regime and the performance regime. The chapter also sets out our decisions on financial incentives for CP4, covering the volume incentive, efficiency benefit sharing and ‘fine-tuning’ of HLOS delivery.

Contractual incentives

5.2 The next two sections of this chapter set out the approaches we are taking to change the Schedule 4 possessions compensation regime and the Schedule 8 performance regime. Both these regimes are compensation regimes but they are also intended to have incentive properties, the former encouraging efficient planning of possessions and the latter encouraging Network Rail and train operators to take actions (investment and/or operational) to minimise lateness and cancellations that they cause. (Track access charges, contained in Schedule 7 of the track access contracts, are covered in chapter 6.)

5.3 Schedule 4 incentivises Network Rail to promote safe working and to plan engineering work early (discounts are payable for early notification of possessions) and efficiently (it should drive Network Rail to assess the trade-off between the impact on train operators and the benefits it achieves from different types of possessions). Schedule 8 (the performance regime) incentivises Network Rail and train operators to maintain and improve operational performance (that is, the amount of delay and level of cancellations).

Changes to the possessions regime (Schedule 4 of track access contracts)

5.4 This section provides an update on the work being carried out by industry groups to improve the effectiveness of the arrangements for the compensation of possessions.

5.5 Schedule 4 to franchised passenger operators’ track access contracts contains arrangements for Network Rail to pay compensation to train operators when it restricts access to parts of the network to allow engineering work to be undertaken. The possessions regime incentivises Network Rail to plan engineering work early and efficiently (through providing for discounts to the compensation payable for early notification). This should allow train operators and their customers to plan their activities based on good and timely information. The regime also incentivises Network Rail to develop an appropriate possessions strategy (through assessing the trade-off between the impact on train operators and the impact on its own costs) by examining the costs and benefits of possessions strategies with different timings and duration.

5.6 Compensation for possessions is currently paid through Schedule 4 of track access contracts and for network change, through Part G of the Network Code. Due to concerns over the effectiveness of these arrangements we asked the industry to develop proposals for changes to the compensation of possessions. The main aim of this work has been to ensure that all compensation for possessions is paid through Schedule 4 and not Part G. This would allow a consistent approach to the compensation of possessions, increasing transparency and removing issues around the boundaries between Schedule 4 and Part G.

5.7 The industry submitted its recommendations to us in January 2008. The industry is broadly agreed on the proposed changes for the passenger regime, with the key changes proposed to Schedule 4 encompassing cost compensation for short possessions based on a formula and providing TOCs with full revenue and cost compensation for large or significant possessions. The main area of disagreement is around whether implementation of the new regime should be phased. The proposals for the freight regime are less well advanced but are likely to involve the provision of Schedule 4 compensation for very disruptive possessions. Part G possessions compensation for freight and passenger operators would be removed. We are currently considering the industry’s recommendations and will set out our decisions on possessions compensation before our draft determinations.

Changes to the performance regime (Schedule 8 of track access contracts)

5.8 This section provides an update on the work being carried out by industry groups to improve the effectiveness of the performance regimes found in Schedule 8 of both the passenger and freight track access contracts.

5.9 The performance regimes (both passenger and freight) provide for payments to be made in compensation for the effect of lateness and cancellation on a train operator's revenue (passenger) and on a mixture of costs and revenue (freight). Although these are bilateral arrangements, they in fact link together through the 'star model', this is where Network Rail sits at the centre taking payments from one train operator to compensate another as well as making payments from itself to a particular train operator where it caused the lateness or cancellation.

5.10 In each train operator's case, payments to or from it are determined based on its performance relative to a defined benchmark (or expected) level of performance and also based on Network Rail's performance against its own benchmark. For example, if Network Rail is performing worse than benchmark in a particular period and the train operator is performing at benchmark in the period then Network Rail would make Schedule 8 payments to the train operator.

5.11 This means that setting the benchmark level of performance, both for Network Rail and for the train operator is important and needs to be updated regularly (generally every five years) to retain a level that is realistic but challenging. This then provides an incentive on both Network Rail and train operators to seek to improve further their respective performance.

5.12 It is also important that the Network Rail payment rates are updated to reflect accurately the expected revenue impact of lateness and cancellations on the train operator. The train operator payment rates need to be updated so that these accurately reflect the expected payments through Network Rail to other operators for the impact of 'TOC-on-TOC' delay (freight operator on third party being the freight equivalent).

Passenger

5.13 In relation to the passenger regime, the focus has been on updating those elements that were not dealt with in the performance regime review 2005.[41] This means that the work is mainly focused on:

- updating Network Rail and train operator benchmarks so that they reflect achievable but challenging levels of performance given recent actual performance and in Network Rail's case the improvement trajectory being developed through the work on performance outputs; and

- updating train operator payment rates to reflect the changes in the likely impact of one operator's services on other operators' services since the previous review in 2003 and the impact of removal by many train operators of the passenger charter compensation arrangements.

5.14 In addition, we need to decide the future levels of the sustained poor performance (SPP) threshold[42] (developed in the 2005 performance regime review to provide for additional compensation through the claiming of relevant losses in the event of sustained poor performance). The industry group has decided on some recommendations for making the dispute provisions in Schedule 8 more effective given some experience of these. We will consult on revised drafting in our draft determinations.[43]

5.15 The industry group has discussed the policy issues and a remit has been prepared and discussed with the industry for technical work that is beginning this February. The revised Schedule 8 will be consulted on in our draft determinations.

Freight

5.16 The industry group working on changes to the freight performance regime agreed in January 2007 the following as objectives for the work, to be applied where possible:

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[41] *Review of the Schedule 8 performance regime: Final Conclusions*, Office of Rail Regulation, December 2005. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/266.pdf.

[42] Appendix 3, Schedule 8 of franchised passenger operators' contracts.

[43] Paragraph 17, Schedule 8 of franchised passenger operators' contracts.

- simplify the regime to reduce associated transaction costs;
- standardise the regime to provide certainty to new entrants and remove any competitive advantage drawn from the regime itself and its differences from other operators' regimes obtained as a result of negotiating power or as a consequence of the time in which its current performance regime was agreed; and
- improve the effectiveness of the compensation to freight operators but in a way that balances appropriately with the simplification objective.

5.17 The industry group has actively managed the development of a proposal for changes. The revisions that have been discussed include the following (and work is now underway to fully populate the new regime):

- single standard benchmark for freight operators (normalised for mileage differences) for Network Rail delays to freight operators informed by Network Rail's freight performance trajectory being determined as part of Network Rail's outputs for CP4;
- single Network Rail payment rate applicable to all freight operators based on a level agreed by the industry group as better reflecting the impact of lateness on freight operators;
- updated freight operators third party benchmark and payment rate, (possibly standard across all freight operators); and
- increased cancellations compensation rates and the inclusion of a cancellations benchmark.

5.18 Most of these policy issues have already been agreed in principle subject to population of the regime. Work is now taking place to fully populate the regime and the revised freight performance regime will be consulted on in our draft determinations.

Financial incentives

5.19 As we set out in our advice to Ministers, our aim is to establish a regulatory framework that reinforces the incentives on Network Rail to perform well each of its wide ranging roles, to forge partnerships with passenger (both franchised and open access) and freight train operating companies as well as other industry parties to improve whole industry outcomes, and to allow for the appropriate balance between its various objectives to be achieved.

5.20 Our review of the incentives currently facing Network Rail and its industry partners highlighted misalignments in incentives between industry players and the public interest.[44] As a result, we believe that:

- Network Rail currently faces weak incentives to grow and develop the network, even where this would result in revenue growth;
- franchised TOCs face weak financial incentives to encourage Network Rail to reduce its costs; and
- franchised TOCs' incentives and freedom to optimise network usage are limited.

5.21 In our advice to Ministers, we set out our emerging thinking and decided that there is merit in:

- continuing to provide a volume incentive, to encourage Network Rail to respond to greater than anticipated demand growth;
- providing an efficiency benefit share mechanism to incentivise TOCs and FOCs to play a greater role in encouraging Network Rail to improve its efficiency; and
- enabling the industry to fine-tune the inputs to deliver the HLOSs in light of emerging information.

5.22 We have since engaged extensively with industry on the way in which these incentives should be implemented. We believe our decisions on how each of the incentives will be implemented in CP4, which we set out below, therefore have wide support from within the industry.

Volume incentive

5.23 The DfT HLOS sets out end CP4 capacity requirements based on expected passenger demand growth. The Transport Scotland HLOS assumes passenger demand growth of 3% per annum in passenger kilometres, plus

[44] *Enhancing Incentives for Continuous Improvements in Performance*, Office of Rail Regulation, July 2006. This may be accessed at www.rail-reg.gov.uk/upload/pdf/298.pdf.

additional specific route based growth. Neither HLOS provides freight forecasts. However, the freight route utilisation strategy (RUS) provides demand forecasts for freight, which have been adopted by the industry.[45]

5.24 Network Rail will be funded through access charges/grants to deliver this capacity, and will include a range of projects to provide the capacity for the expected demand growth in its CP4 delivery plan.

5.25 The delivery of the capacity related schemes will form part of the reasonable requirements of customers and funders, and their delivery will therefore be a condition of Network Rail's licence (as set out in chapter 3). The company should therefore face strong financial and reputational incentives to accommodate the demand growth envisaged in its regulatory settlement.

5.26 Actual demand growth may well be higher than envisaged. Indeed, some stakeholders have expressed the view that this is likely to be the case. However, the structure of charges means that Network Rail faces weak incentives to meet such demand.[46]

5.27 As stated in our advice to Ministers, we therefore believe that there is a rationale for continuing to provide Network Rail with a volume incentive; and that this should incentivise the company to meet unanticipated increases in demand through non-capex intensive solutions. We did not, however, express a preference for a particular approach.

5.28 Following further analysis of the options available and further discussions with stakeholders, we intend to implement a strengthened and updated version of the existing volume incentive. This will provide Network Rail with additional revenues dependent on its ability to increase passenger and freight volume metrics, subject to delivering HLOS capacity outputs. In particular:

- **The baseline**: Network Rail will receive additional revenues for accommodating demand over and above that envisaged in the HLOSs and the freight RUS, and therefore in its SBP. The mechanism will remain

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[45] The freight RUS, March 2007, maybe accessed on Network Rail's website at http://www.networkrail.co.uk/browse%20documents/rus%20documents/route%20utilisation%20strategies/freight/freight%20rus.pdf.

[46] Variable track access charges reflect the costs of wear and tear to the infrastructure resulting from additional traffic, and other associated costs that vary directly with the volume and type of traffic.

'upside only', i.e. failure to deliver capacity to meet levels of growth forecast in the SBP should be addressed through other parts of the regulatory framework, in particular through the enforcement of Network Rail's licence, as set out in chapter 3.

- **Volume indicators**: We will retain the existing metrics. Network Rail will therefore receive additional revenue if passenger train miles, passenger farebox revenue, freight train miles and/or freight gross tonne miles are higher than envisaged in the SBP (and by government in the case of farebox revenues). We have reviewed carefully the appropriateness of these metrics. Though some stakeholders have expressed the view that the farebox revenue metric should be dropped, we believe that its retention is important in promoting partnership between TOCs and Network Rail.

- **Test of HLOS delivery**: There is not a one-to-one correspondence between the volume indicators set out above and the delivery of the HLOS capacity outputs. It is therefore possible that the volume indicators are at levels at or above those set out in the SBP (or envisaged by government, e.g. for farebox revenue) but that Network Rail is not deemed to have delivered its capacity outputs. Network Rail should not receive additional revenues under the volume incentive where this is the case. Any payments would therefore be subject to Network Rail having delivered its capacity related schemes.[47]

- **Incentive rates**: We will update the existing payment rates, in particular to reflect both inflation and the most recent estimates of social value. There will be no geographic differentiation. We will set out the updated payment rates in our June draft determinations.

- **Form of payment**: The payment will be made to Network Rail as a lump sum cash payment at the beginning of CP5. This should significantly strengthen the power of the incentive versus the current RAB-based approach.[48] The payment in the next control period (rather than annual payments) fits with both the definition of capacity outputs in the HLOSs /

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[47] Subject to the change mechanism set out in chapter 3.

[48] See chapter 19 of *Access Charges Review 2003: Final Conclusions*, Office of the Rail Regulator, December 2003. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/184.pdf.

freight RUS and the wish to provide government with budgetary certainty during CP4.

5.29 The volume incentive will provide Network Rail with a potential pot of money that it can use at its own discretion to invest in the network. This should provide incentives on Network Rail's managers to accommodate additional demand due to the reputational benefits that could be expected from, for example, driving / being associated with a successful company and/or generating savings that can be used to improve the network.

Efficiency benefit share mechanism

5.30 As discussed in our July 2006 consultation document, a consequence of the current franchising regime is that franchised TOCs are largely insulated from changes in Network Rail's cost efficiency within the life of a franchise. They therefore face little direct financial incentive to encourage Network Rail to improve either its expenditure decisions or its efficiency, though we recognise that there are examples of TOCs engaging on these issues.

5.31 In our advice to Ministers, we decided that, subject to practicalities, we would implement a mechanism from the start of CP4 whereby TOCs and FOCs would share in Network Rail's outperformance of its regulatory efficiency assumptions where they demonstrably assist in that outperformance. This was widely supported by the industry.

5.32 We have always felt that, ideally, the detailed 'ownership' and design of the mechanism should be industry led. We have therefore engaged with stakeholders extensively and asked them to agree a mechanism that balances appropriately the objectives of ensuring the mechanism is both:

- targeted on areas where train operators can bring genuine discipline to Network Rail's decision making, so that benefit shares are a legitimate reward for the effort that operators make to reduce Network Rail costs; and
- straightforward, with minimal transaction costs, and easily understood.

5.33 Our decisions on the design of the mechanism are set out below. These reflect the areas of agreement within the industry. Where industry has not agreed a way forward, for example on the sharing rules, we set out our decisions, which we believe promote the right incentives on stakeholders and are equitable.

The type of efficiencies to be shared

5.34 Network Rail can potentially outperform its regulatory determination on a number of fronts, and should be encouraged to do so. Operators have the ability to assist and encourage Network Rail in this in a variety of ways, and the efficiency benefit share mechanism should ideally reflect this.

5.35 In developing our thinking on the appropriate mechanism, we had focused initially on establishing a mechanism whereby operators would share only in Network Rail’s renewals scope efficiency; incentivising them to assist Network Rail in this area. This was because this is where we believed operators are best placed to identify additional Network Rail efficiencies.

5.36 Industry has proposed to us that the scope of the mechanism should be broader. In particular, the industry has proposed that Network Rail shares outperformance on all operating, maintenance and renewals expenditure and a number of revenue elements (variable track access charges associated with additional traffic, retail and property rental income and schedule 4).

5.37 Industry has set out to us examples of how operators can assist Network Rail in identifying opportunities to outperform in all these areas.

5.38 We will therefore adopt this wider definition of outperformance for the efficiency benefit share mechanism when it is implemented at the beginning of CP4. However, we will review the appropriateness of this once the mechanism has been in operation for one or two years. We believe that it is important that operators share only in the types of outperformance that they are able to influence and therefore that payment shares represent a legitimate reward.

Measuring efficiencies

5.39 It is important that all parties have confidence that the measurement of outperformance used to calculate any efficiency shares is robust.

5.40 We already have a framework for assessing Network Rail’s performance on OM&R expenditure and we assess Network Rail’s performance versus the determination on an annual basis. [49],[50] We also monitor Network Rail's income versus determination. These data are available for both England & Wales and for Scotland. This will therefore form the basis for our assessment of Network Rail's outperformance each year and therefore the amount that is to be shared under the efficiency benefit share mechanism.

5.41 Importantly, our framework for assessing Network Rail's outperformance contains a test as to whether the company has delivered its required outputs. Where it has not done this, Network Rail will not be deemed to have outperformed its regulatory determination regardless of any underspend on OM&R or higher than expected income. There would therefore be no efficiency benefit share payments where Network Rail has not delivered required outputs.

5.42 From the beginning of CP4, our annual assessment of Network Rail will include an explicit statement of the outperformance to be shared under the benefit share mechanism. This will reflect our assessment of Network Rail's cumulative outperformance of its determination in the relevant areas in the control period up to the point of the assessment.

The level of disaggregation

5.43 There is a trade-off to be made between the sophistication of the mechanism and simplicity.

5.44 In our advice to Ministers, we indicated an initial preference for a relatively disaggregated scheme, say at the strategic route level, on the basis that this may have the advantage of enabling better targeting (in that those operators actively engaging with Network Rail and driving cost reductions would arguably be those that benefit). However, further consideration and discussion with industry have identified a number of issues with this approach:

- the PR08 efficiency and income assumptions will not be specified at this level of granularity;

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49 *Monitoring and treatment of Network Rail's underspend and efficiency*, Office of Rail Regulation, January 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/273.pdf.

50 See for example our most recent annual assessment: *Annual Assessment of Network Rail 2006-07*, Office of Rail Regulation, September 2007. This may be accessed http://www.rail-reg.gov.uk/upload/pdf/339.pdf.

- Network Rail does not currently produce unit cost data at such a disaggregated level; and
- the more disaggregated the approach the more complex the mechanism and the higher the associated transaction costs.

5.45 The mechanism will therefore operate at the national level in the first instance, with separate schemes for England & Wales and Scotland.

5.46 Nevertheless, we would anticipate significant operator input being at the local level, for example through the local route investment review groups and local station groups. However, the choice of forum is for the industry to decide.

5.47 We do not want to rule out a more targeted benefit sharing mechanism in future when accurate local level data is available to support it. We will keep this under review.

The sharing rule

5.48 We will set the proportion of Network Rail's outperformance to be shared with operators in our draft determinations. The percentage determined will:

- represent a judgment that joint working arrangements should mean that a non-trivial proportion of cost saving initiatives implemented by Network Rail originate ultimately from operator input, and
- provide operators with reasonably strong financial incentives to engage with Network Rail in reducing costs while not undermining Network Rail's incentive to strive for continuous cost efficiencies.

5.49 The operator share of Network Rail's efficiency savings must then be allocated among individual operators. We have considered a number of metrics for doing this. Since it is not straightforward with a national mechanism to correlate outperformance with individual operator input, there is no ideal measure. In the interests of simplicity and minimising the potential for perverse incentives, we propose that the operator share is divided between operators in proportion to the variable track access charges paid. This approach has the benefit of capturing an element of the scale of an operator's services as well as the overall impact that services have on Network Rail spending.

5.50 It is important to note that any underperformance by Network Rail would not result in money being clawed back from operators.

Timing of payments

5.51 For the benefit sharing mechanism to provide a real incentive to operators, we believe it is important that payments are made on an annual basis.

5.52 Operators need to realise the benefits of their engagement with Network Rail relatively quickly for the financial incentive to be meaningful. Making payments at the end of each control period, for example, would mean that the financial incentives on operators, particularly franchised TOCs, would be diluted in the early part of the control period, severely so for franchisees whose contracts end before the end of the control period.

5.53 We recognise that an annual payment mechanism does leave some risk with Network Rail in that early outperformance of efficiency targets that results in benefit share payments being made to operators may be offset by underperformance later in the control period. However, we believe that Network Rail should be able to manage this risk effectively.[51]

5.54 As our assessment of Network Rail's efficiency performance is published in September each year, any benefit share payments to operators should be paid in the November following the end of the financial year to which the payments relate.

Form of payments

5.55 Any benefit shares will be payable to operators in cash (rather than, for example, funds earmarked for station investments). We believe this will provide a strong incentive to operators and is administratively straightforward. We consider cash payments to be particularly important given that the total amounts of money involved in the scheme are likely to be relatively small for any particular operator in any particular year.

5.56 It is important that any payments made to operators fall outside the scope of the revenue clawback mechanisms embedded in franchise contracts with

[51] Note that where Network Rail underperforms early on in the control period but outperforms later on, resulting in overall underperformance, this issue does not arise as efficiency benefit shares are based on cumulative performance.

government, including ‘clause 18.1-style’ arrangements. We intend to formalise this with both DfT and Transport Scotland in due course.

Implementation

5.57 We intend to include this mechanism in Schedule 7 of track access contracts.

Reviewing the mechanism

5.58 Provided that any benefit share payments to operators represent legitimate reward for engagement with Network Rail on reducing the cost of the railway, the mechanism will help the industry to move to a lower overall cost base than would have otherwise occurred.

5.59 Once the mechanism has been in place for one or two years we will review its effectiveness and whether there is merit in altering its scope or detailed design.

Fine tuning’ the delivery of the HLOSs

5.60 In our advice to Ministers, we decided that there would be merit in enabling industry to ‘fine-tune’ the regulatory determination for Network Rail if emerging information suggests that another party could deliver HLOS outputs more efficiently. We set out a hypothetical example of how this might work.[52]

5.61 Our proposals were widely supported by industry, and we have since engaged with stakeholders to explore the practicalities in more depth.

5.62 Implementing HLOS fine-tuning requires the minimum of regulatory intervention and bureaucracy.

5.63 We believe that the best option is for Network Rail to enter directly into commercial negotiations with relevant operators; something that they are able to do now.

5.64 Our role is therefore to facilitate this process, within the wider regulatory regime. We will define PR08 outputs and the wider regulatory framework with sufficient flexibility to ensure that there are no obstacles to ‘fine tuning’. In

[52] See paragraphs 8.13-8.14 in *Advice to Ministers and framework for setting access charges*, Office of Rail Regulation, February 2007. This may be accessed at www.rail-reg.gov.uk/upload/pdf/316.pdf.

particular, we will ensure that the change mechanism, whereby Network Rail effectively updates its CP4 delivery plan is consistent with fine-tuning, and make changes to the regulatory accounts so that any ‘fine tuning’ transactions relating to capex and the RAB can be separately identified.

6. The structure of charges

Introduction

6.1 In June 2006, we published our consultation document on the structure of track access and station long-term charges.[53] This set out our charging objectives and guidance to Network Rail on the development of the structure of charges for CP4. Network Rail has provided indicative charge proposals as part of the supporting information provided with its SBP.

6.2 This chapter sets out our decisions on the structure of charges, in particular on:

- route based charges;
- reservation charges; and
- station long-term charges.

6.3 There will remain decisions on the structure of charges to be made following Network Rail's April SBP update, which we expect to include a full, updated set of charges. Therefore, in some cases we are unable to make a final decision in this chapter but provide our current assessment.

6.4 We also consult in this chapter on our proposed approach to making changes to Network Rail's revenue requirement within the control period in line with any incremental (or decremental) changes that PTEs or TfL might make to the level of rail services.

Assessment of Network Rail's charge proposals

6.5 Network Rail is taking responsibility for the development of charge proposals for CP4, (although we have continued to lead on examining possible new charges). Network Rail's proposals must adhere to our charging objectives

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[53] *Periodic review 2008: Structure of track access and station long-term charges*, Office of Rail Regulation, June 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/291.pdf.

and take account of our charging guidelines.[54] Network Rail's charge proposals will be subject to our audit and approval. As part of its SBP, Network Rail set out its proposed indicative track and station access charges, including price lists for the variable usage charge (for both passenger and freight) and part of the price list for the traction electricity charge. In addition, Network Rail carried out an industry consultation on its indicative charges and held an industry workshop on 29 November 2007.

6.6 We have reviewed Network Rail's indicative charge proposals, informed by the results of Network Rail's consultation and our own consultation on the SBP. We welcome Network Rail's indicative charge proposals and the large amount of work that has gone into them. In particular we recognise the work that has gone into developing version 2 of the ICM, which has been used in the development of many of the charge proposals. We also welcome the positive approach with which Network Rail has consulted the industry.[55]

6.7 Our assessment of the indicative charges has, however, been hampered by some data not being provided at the time of publication of the SBP and in some cases only being provided relatively recently. Given the short time horizon between the April 2008 SBP update and the draft determinations, we emphasise the importance of Network Rail not just producing a full set of proposed final charges but also providing full supporting documentation and modelling at the same time to facilitate our assessment of its charges ahead of publication of our draft determinations.

6.8 We commissioned a short study by the Institute for Transport Studies (ITS) at the University of Leeds to examine the overall structure of charges, and review some specific issues in order to inform our assessment.[56]

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54 Our charging objectives are set out in paragraph 2.5 and our charging guidance in chapter 4 of *Periodic review 2008: Structure of track access and station long-term charges*, Office of Rail Regulation, June 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/291.pdf.

55 For more details of Network Rail's consultations see http://www.networkrail.co.uk/browseDirectory.aspx?dir=\Regulatory%20Documents\Access%20Charges%20Reviews\Consultations%20on%20Future%20Charging&pageid=2893&root.

56 The ITS review may be accessed at http://www.rail-reg.gov.uk/upload/pdf/cnslt-ITS_rev-NR_charg-props.pdf.

6.9 ITS found that the overall charges package represents a step forward in providing incentives to industry parties. ITS also considers that the charges could be made more cost reflective, e.g. through the adoption of a simple scarcity charge or the recovery of environmental costs. We have already rejected these options for CP4 but ITS's work provides useful information for further consideration of these issues during CP4. ITS was surprised by the low level of costs deemed variable with usage identified in the SBP, particularly compared to European comparators. ITS said that route based charges would be more cost reflective but that any such change should take account of the administrative burden of implementation.

Variable usage charges

6.10 Variable usage charges reflect the wear and tear costs associated with traffic on the railway network. The current variable usage charges are based on a network average rate for each vehicle type. Network Rail has developed indicative variable usage charge proposals using its ICM.

6.11 Based on the ICM, Network Rail estimate their total variable costs are £301m per year (end of CP3 efficiency and 2009-10 traffic levels), a reduction of around 11% on charge levels calculated using the current approach. Network Rail has allocated variable costs across individual vehicle types using a vehicle damage model. This incorporates track and structures damage models (as used in CP3) and a new rail surface damage model (informed by work carried out by consultants TTCI), which reflects the impact of lateral forces on track damage.

6.12 We welcome the work that Network Rail has done to improve the ICM, in particular the improvements to the track service lives calculations and the treatment of rural and freight lines.[57] The independent reporters, Halcrow, were commissioned to review Network Rail's variable usage charge proposals. Halcrow's key conclusions are that it commended the good work undertaken by Network Rail on estimating variable costs, in particular on the inclusion of the lateral forces rail surface damage term. However Halcrow also

[57] These address some of the concerns we had with variable cost calculations in an earlier version of the ICM. These are documented in *Periodic Review 2008: Consultation on caps on freight track access charges*, Office of Rail Regulation, December 2006. This may be accessed at www.rail-reg.gov.uk/upload/pdf/310.pdf.

identified some areas where Network Rail needs to do further work to validate its assumptions, including:

- the general volatility and lower levels for track renewals variable costs compared to previous estimates raising concerns over their robustness, in particular given that Network Rail is finding that heavier trains are causing more damage to the infrastructure than previously anticipated. If these concerns are not resolved then we are likely to continue using the estimates of higher track renewals variability in the existing charges;
- assumptions regarding the relationship between curvature and variable costs; and
- further work to remove the anomalies in the individual vehicle charges.

6.13 We expect Network Rail to address the points raised by the reporters in its SBP update.

Route based charges

6.14 Our June 2006 consultation document asked Network Rail to set out how variable costs change with location on the network, to support consideration on whether it is appropriate to disaggregate the variable usage charge by route or some other geographical basis. We welcome the work that Network Rail has done to estimate variable usage costs by route category and track curvature. Network Rail has noted some concerns over the robustness of some of the variable cost estimates, particularly for rural and freight lines. We agree with these concerns.

Route based charging based on route categories and track characteristics

6.15 As part of the SBP, Network Rail has identified differential variable costs by route category and curvature, as shown in table 6.1. It is important to note that this table represents the additional costs of additional traffic and not the total costs of a route.

6.16 Table 6.1 shows that variable costs are likely to be higher on rural lines as the marginal impact of an additional vehicle would be greater, for example it would have a greater impact on items such as frequency of track maintenance, which can be largely fixed on primary routes. Network Rail's proposals also show that variable costs are likely to increase with track curvature, due to damage related to tangential forces.[58] This reinforces the impact on the inclusion of the tangential force track damage term in the individual vehicle charge models.

Table 6.1: Network Rail's variable cost estimates by route category and track curvature

£ per kgtkm (2006–07 prices)	All curvature	'Straight'	'Mixed'	'Curvy'
Network average	1.79	1.48	2.24	3.20
Primary	1.30	1.10	2.12	n/a
London & South East	1.84	1.61	2.29	n/a
Secondary	3.04	2.88	3.00	6.19
Freight	2.58	1.81	3.13	n/a
Rural	6.44	5.27	6.63	9.58

Source: Network Rail's strategic business plan supporting document for the structure of charges.

6.17 While putting forward charge proposals in line with our guidance Network Rail stated that they had reservations about the merits of adopting route-based charging. These reservations are shared by the industry, with a general industry consensus against route based charging due to the additional complexity in charge calculations and billing. Moreover, the variation in charges is not robust and there are potential perverse incentives on train operators.

6.18 We also have concerns over introducing charges on the basis of curvature at the present time. In their review of Network Rail's variable usage charge proposals the rail reporters highlighted some concerns over the robustness of Network Rail estimates of cost variation with curvature. We therefore consider that Network Rail would need to undertake further work to identify robust variable costs related to track curvature before separate charges could be considered.

[58] Tangential forces between wheel and rail cause rail surface damage through wear and rolling contact fatigue. The extent of damage will depend on the curvature of the track, with curvier track leading to greater damage, and the technical characteristics of the rolling stock.

6.19 We do not consider that charges on the basis of route category should be introduced in CP4. We are concerned that Network Rail's charge proposals do not appear to be robust, with Network Rail stressing that charges for rural and freight routes in particular are indicative and that they are carrying out further analysis. Charging on the basis of route category could create perverse incentives, as there would be an incentive on train operators to move traffic from less congested routes (e.g. freight only and rural lines) to more congested areas of the network such as primary routes. This incentive would be mitigated with the introduction of a scarcity charge, which would levy higher charges for more congested areas of the network. We therefore do not consider it appropriate to introduce route category based charging without the corresponding introduction of a scarcity charge. In addition, moving to a route based variable usage charge would increase the complexity of the charge and we would need to understand the implications of this. We intend to keep the issue of route based charging under review during CP4 in parallel with further examination of the case for a scarcity charge.

Geographical route-based charging

6.20 Although we asked for it in our guidance on the form and content of its SBP, Network Rail did not provide separate variable costs for England & Wales and Scotland in the SBP. We have therefore derived the relevant variable costs from Network Rail input data, shown in table 6.2. This shows that variable usage costs are higher in Scotland, in part reflecting the greater proportion of rural lines.

Table 6.2: Average variable costs for England and Wales and Scotland

£ per kgtm (2006-07 prices)	Variable cost
Network average	1.79
England & Wales	1.71
Scotland	2.65

6.21 Transport Scotland in its response to Network Rail's consultation on route based charging states that it would expect that any material differences in costs should be reflected in charges, although it does note concerns over the additional administrative complexity and a lack of robustness in Network Rail's charge proposals. Based on the values in table 6.2, average variable usage costs are more than 50% higher in Scotland than they are in England & Wales.

6.22 Establishing separate charges in England & Wales and Scotland is consistent with our charging principles by increasing cost reflectivity (particularly at the margin), improving transparency and allowing Network Rail to recover the higher variable costs in Scotland. Separate charges would also reinforce the regulatory accounting separation between England & Wales and Scotland in line with the separate specifications of high-level outputs and funding for the railway between the two countries. We do not consider that levying different charges for England & Wales and Scotland would be administratively onerous, as it would simply require two different price lists with a clear indication of where each would apply. We expect Network Rail to introduce different variable usage charges for England & Wales and Scotland in CP4 if the material differences in cost remain once it has undertaken its further calculations of costs and charges. We have asked Network Rail to include separate variable usage charges for England & Wales and Scotland in its SBP update.

Freight specific charges

6.23 In October 2007 we stated our intention to implement charges for freight only lines for electricity supply industry (ESI) coal and spent nuclear fuel traffic.[59] We welcome Network Rail's estimates of freight only line costs and charges. We would look for Network Rail to improve these estimates following improvements to the ICM as part of the April update.

6.24 The coal dust spillage factor recovers the additional costs of coal dust spillage on the network and is currently a 20% uplift on the variable usage charge for coal traffic. In our caps on freight charges consultation document[60] we said that we would not expect the coal dust spillage factor to remain in its current form without robust evidence of the impact on maintenance and renewal costs. As part of the SBP, Network Rail has estimated the cost of coal dust spillage at £7.1m per year. Network Rail's preferred option is to retain the existing coal dust spillage uplift on variable charges (of 20%, raising around £5m per year) with a rebate where spillage is minimised for example by

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59 *Charge to recover the costs of freight-only lines*, Office of Rail Regulation, October 2007. This may be accessed at www.rail-reg.gov.uk/upload/pdf/fol-conclusions.pdf.

60 Periodic Review 2008 - Consultation on caps for freight track access charges, Office of Rail Regulation, December 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/310.pdf.

improved loading practices or procedures. EWS have challenged Network Rail's estimates of coal dust spillage, stating that they consider the costs could be as low as £1m per year. We have asked the reporters to examine the costs of coal dust spillage, including reviewing the proposals put forward by EWS.

6.25 The current freight variable usage charge incorporates a discount for track friendly suspension types on freight wagons. We said in our charging guidance that Network Rail should retain the principle of discounts for track friendly suspension types but examine options to use quantitative as well as qualitative evidence to define the boundaries between discount categories. Network Rail has not included this in its charges proposal and we would expect this to be included in its April SBP update.

Traction electricity charge

6.26 Since Autumn 2006, train operators and Network Rail have been working together to develop a more effective basis for the traction electricity charge. The initial focus of this work was to change the basis of the price element to remove the large discrepancy between the actual cost to Network Rail of buying electricity on behalf of the train operators and the price element of the charge. This was originally set based on the equivalent costs in 1999-2000 but is indexed by average electricity prices published by what is now the Department for Business, Enterprise and Regulatory Reform.

6.27 This led to a change in these arrangements for franchised passenger operators from 1 April 2007. The price element of the charge now reflects Network Rail's costs but the train operators as a whole can influence the timing and duration of purchase of electricity.

6.28 The focus for CP4 for franchised passenger operators is now to ensure that the train operator's total electricity charge reflects, as closely as possible, the actual electricity consumed by that operator given that the majority of train services (at least at the start of CP4) will still be based on modelled consumption rates rather than using on-train meters. The SBP reflects some of this work, particularly the proposed greater disaggregation of regenerative braking discounts. Other parts of this work remain to be done in support of Network Rail's final charges proposal in its April SBP update:

- development of new vehicle consumption rates model;

- strategy for metering non-traction use of traction electricity e.g. at specific boundaries between London Underground and National Rail network and at specific stations, e.g. Euston; and
- the possible establishment of a methodology for measuring consumption from stabled vehicles (currently recovered as part of the wash-up adjustment for the difference between actual and modelled electricity consumption).

6.29 Network Rail proposed in its SBP to further investigate the case for introducing on-train meters as a joint industry study. We welcome the work carried out to date and continue to encourage feasibility work on the use of on-train meters. In particular, we want to be able to conclude in PR08 on the minimum quality of meter to be used for billing and how the data would be managed. This will enable operators to start fitting on-train meters and use them for billing the traction electricity charge from the start of CP4, where applicable.

6.30 After discussions with freight operators, Network Rail proposes that the determination of their consumption should be included within the wash-up adjustment. It also proposes that if freight operators wish they can continue to use the index of average electricity prices no longer used in relation to passenger operators.

6.31 In principle, and if operators agree we support this as long as issues identified above are resolved, in particular the production of accurate consumption rates for freight vehicles.

Capacity charge

6.32 In its SBP, Network Rail proposed the continuation of the capacity charge for CP4 but with a charge differentiated by 614 route sections and 6 timebands. During the industry consultation a number of issues were raised that we agreed needed to be answered before we could conclude that such a charge should be applied in the way proposed:

- the implications of the performance regime benchmark re-calibration bringing expected performance from Network Rail to a realistic but challenging level;

- the implications of the freight performance regime given that in the event of growth of other services, freight operators' performance payments are affected; and
- whether the level of complexity is an appropriate balance between reflecting major differences in congestion costs and retaining sufficient simplicity to make sure that the charge is practicable and does not impose excessive transaction costs on the industry.

6.33 On the last of these we think that a charge based on significantly fewer route sections would balance simplicity and cost reflectivity better (although we agree with the number of timebands proposed).

6.34 The remaining issues are clearly fundamental to the approach to be followed on a capacity charge in CP4. We support the further work Network Rail is doing for its SBP update to understand the implications of these for its capacity charge proposal.

Station long-term charge

6.35 Network Rail consulted, before it published its SBP, on a number of approaches to recover its maintenance, renewals and repair costs at stations, the options included:

- retaining the CP3 station long-term charges until various uncertainties that impact on station access arrangements are settled, e.g. the implementation of the Stations Code;
- removal of the station long-term charge and recovery of the costs through the fixed track access charge; or
- a per station charge based on improving the current station long-term charge model following the principles set out by Corderoy in its report to us in 2005.[61]

6.36 There has also been discussion of moving from a 'per station' based charge to a single charge 'per portfolio' of stations. That is one charge for each

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[61] *Report on development of a more cost reflective structure for station charges*, Corderoy, February 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/cons_stns_lng-trm_chrgs-corderoy_0206.pdf.

franchised passenger operator who acts as a station facility owner (SFO). In these discussions we have said that:

- we do not think it appropriate to retain the CP3 charges for CP4 without reviewing how they are derived and updating the level (this option is not supported by Network Rail);
- we broadly agreed with Network Rail that generally costs of maintenance, renewal and repair at stations do not vary significantly with footfall; and
- while the above point supported the option of recovering the costs through the fixed track access charges, for this to be acceptable to us accurate information about station expenditure would need to be provided to train operators and we would have to understand how the allocation of the costs within the fixed charge model worked.

6.37 In its SBP, Network Rail proposed that the station long-term charge be set to zero and the equivalent costs (for maintenance, renewal and repair) would instead be recovered through a specific charge in the track access contracts of franchised passenger operators who are also station facility owners (SFOs). This charge would reflect the finally determined level of efficient expenditure at franchisee portfolio level.

6.38 It also set out how additional information would be made available to operators. In Network Rail's consultation on the charging elements of the SBP there was widespread concern among the operators about the impact of this approach on available transparency of station expenditure and the potential loss of accountability.

6.39 In further discussions Network Rail and ATOC have broadly agreed on a recommended approach that involves:

- Network Rail estimating its expenditure by portfolio of stations (i.e. by franchisee who is also SFO);
- this expenditure (on a similar basis to that given in appendix 12 of Network Rail's SBP) would be the basis for a separate charge to be located in the track access contracts of franchised passenger operators who are also SFOs, though there is still debate on whether and how other station users should contribute towards the costs; and

- this expenditure under normal circumstances is committed for use in relation to these stations and that the specific ‘per station’ allocation be the result of discussion with the SFO and other users of the stations in the particular portfolio.

6.40 Given this proposed approach, it will be particularly important that Network Rail robustly justifies the expenditure projections for the different SFOs in its SBP update. Network Rail is carrying out further work and discussing with train operators before providing its final charge to recover these costs from relevant franchised passenger operators, which we have asked it to do in its SBP update. Network Rail will work with the industry before its SBP update, to understand the impact of removing the charges from beneficiaries, although the governance arrangements in the station contracts will remain largely unaffected.

6.41 We consider that the general principles underlying Network Rail’s proposal to set the station long-term charge to zero is acceptable. However, in the light of the discussions to resolve the concerns highlighted (particularly by train operators) in the consultation on the SBP indicative charges proposal, there are a number of detailed issues that still need to be addressed before we can finally agree to the specific proposal. These include ensuring transparency of expenditure and the potential contribution of other station users to the costs.

6.42 We intend to provide our final decision to the new portfolio approach for the station long-term charge in our draft determinations. To inform this we will expect Network Rail to work closely with stakeholders and we will want to also discuss issues with stakeholders.

Fixed track access charge

6.43 The fixed track access charge recovers Network Rail’s residual revenue requirement when all other sources of income are netted off. It is only paid by the franchised passenger operators. The ‘structure of charges’ issue is how the total fixed charge is allocated between these operators.

6.44 Network Rail has proposed an approach, which uses the 307 strategic route sections at the heart of its infrastructure cost model version 2 as the basis for much of the allocation. Network Rail acknowledge further work is needed to finalise the appropriate metrics for allocating specific costs but the overall approach should better identify and allocate both the avoidable costs specific to the particular operator and those costs that are common to the network and can only be attributed using an appropriate metric.

Reservation charge

6.45 Whilst Network Rail has taken the general lead in proposing charges for CP4, we have led the work to examine the case for a reservation charge.

6.46 This section gives our decision on whether or not to introduce this for CP4. Further details of the reasons for our decision are set out in annex D and a cost/benefit study carried out by NERA is available on our website.[62]

6.47 A reservation charge is a charge applied to train operators who hold access rights but then do not utilise these rights to operate these as train services. While encouraging behaviour that might contribute to a more efficient use of the network it has the narrower objective of encouraging operators to hold an efficient quantity of access rights. This does not mean that all the paths implied by access rights should be used but rather that where for various reasons additional access rights are held, e.g. for freight operators to have sufficient flexibility to meet the needs of their customers, that they only hold those that they actually need. This matters because holding access rights but then not using them carries a cost both in terms of preventing access to the network to others or in bringing forward costly enhancement projects to increase network capacity.

6.48 Responses to our June 2006 structure of track access and station long-term charge document were sufficiently positive for us to consult on more specific models of reservation charges. In December 2006 we consulted on two models: a flat rate network wide charge (rebateable where a service operated) and a charge focused only on congested parts of the network, where the resulting costs of reserving paths but not using them is at its highest.[63]

6.49 Responses to this consultation were mixed but some were in favour of a charge as long as it took as simple a form as possible. We decided to

[62] *The impact of a reservation charge, final report to the Office of Rail Regulation*, NERA, August 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/cnslt-NERA-report_pv.pdf.

[63] Periodic review 2008, A reservation charge: consultation on issues and options, Office of Rail Regulation, December 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/316.pdf.

commission NERA to examine the costs and benefits of the introduction of a charge based on the two models described in our consultation. NERA found that the costs associated with the introduction of either version of the charge would significantly outweigh the benefits. This was mainly driven by the very small benefits identified.

6.50 In the light of NERA's evidence, the consultation responses and because there are available alternative administrative options to address the issue of operators holding levels of access rights that are unnecessary (explained further in annex D) we have decided not to implement a reservation charge for CP4. However, given the difficulties that exist with successfully implementing the administrative mechanisms, and because it is not clear whether the issue of unnecessary holdings of access rights is worsening or improving, we will review the case for a reservation charges again during CP4.

Electrification asset usage charge

6.51 Network Rail has proposed to recover the costs of wear and tear on electrification assets following the approach for other wear and tear costs rather than as a mark-up on the traction electricity charge as currently. We welcome this approach and consider that it should lead to the charge better reflecting the costs being recovered. We generally support the basis for estimating the level of this charge although we will look for any updated evidence to be presented in the April SBP update.

6.52 Network Rail has consulted through its SBP on how the charge should then be applied, e.g. cost per vehicle km, cost per train km or a more complicated route or speed based charge. Network Rail will need to propose and set out the reasons for its preferred approach in its April SBP update.

Provisions in Schedule 7 of the track access contracts

6.53 Schedule 7 of the track access contracts between Network Rail and train operators contain various provisions. We have reviewed some of these as part of PR08.

Network Rail rebate

6.54 In ACR2003 we added provisions for Network Rail to pay a rebate to train operators under specific conditions and subject to our approval.[64] This was introduced because of the difference in Network Rail's financial structure from that of its predecessor, Railtrack, in particular the absence of shareholders from Network Rail's structure. The provisions could be used as a means to share surpluses with its customers and funders (where its predecessor could have shared its profits with its shareholders through a dividend).

6.55 The provisions have only been used to reflect changes in the share of Network Rail's funding between the fixed track access charge and the network grant. This was not the intended purpose of the provisions and we propose to make changes to the legal drafting as necessary to preclude its use in this way for CP4. We propose to retain the provision for its original purpose and will consult on the detailed drafting in the draft determinations.

Change of law

6.56 Chapter 4 sets out the work on reviewing Network Rail's financial framework for CP4. One aspect that it covers is the treatment of risk and uncertainty to Network Rail during the control period. At present one element of this is provided in Schedule 7 of track access contracts, 'the change of law' provisions.

6.57 Franchised passenger operators' track access contracts have to date contained change of law provisions.[65] These provisions could allow Network Rail to recover additional costs from these train operators in the event of a qualifying change of law that increases Network Rail's costs (above that anticipated at the time of the most recent periodic review) and where we determine that these should be borne by the operator instead of Network Rail.

6.58 This therefore forms one element of the framework set out for Network Rail relating to its dealing with risk and uncertainty during the control period. We have consulted on the risk and uncertainty framework both in September

[64] Paragraph 8 of Part 2 of Schedule 7.

[65] Part 3, Schedule 7 of franchised passenger operators' track access contracts.

2006[66] and in September 2007[67] and in the light of this we consider that the change of law provisions are no longer necessary and that Network Rail bears this uncertainty within the other protections it is provided with through our determinations.

Increments and decrements

6.59 We have been working with Network Rail and the industry to develop an appropriate way to meet the intent set out by government in the Future of Rail White Paper (2004) to identify the cost impacts to Network Rail of PTE or TfL sponsored increments or decrements in rail services. This is to facilitate PTEs/TfL sponsoring such increments or decrements at anytime in the franchise life but being exposed to the financial impact of these (positive or negative).

6.60 We stated in our advice to Ministers[68] that we would consider the following issues:

- the approach to identify the impact on Network Rail's costs resulting from the increment/decrement in service;
- possible approaches to enable changes in the fixed charge payable in response to increments/decrements which can then be passed on to PTEs or TfL;
- whether there should be a minimum threshold below which the impact of a change on Network Rail's costs in excess of those recovered through the variable charge are not examined; and
- the timing of any changes required to Network Rail's RAB.

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66 *Periodic review 2008 (PR08): The treatment of risk and uncertainty, a consultation*, Office of Rail Regulation, September 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-risk-let-280906.pdf.

67 *Periodic review 2008 (PR08): Financial issues updates and further consultation*, Office of Rail Regulation, September 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-financial-issues-let-060907.pdf.

68 *Periodic review 2008 Advice to Ministers and framework for setting access charges*, Office of Rail Regulation, February 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/316.pdf.

6.61 On 20 July 2007 we held a workshop which PTEs, TfL, government, Network Rail and ATOC attended. The workshop included a useful discussion of:

- the priorities for increments and decrements;
- real or possible examples of the types of increment and decrement;
- different types of decrement and indications of where Network Rail would be expected to make significant savings and, as importantly, where this is not likely to be the case; and
- the mechanics of how changes might be made to the access charges set out in Schedule 7 of franchised passenger train operators' track access contracts.

6.62 It is clear that identifying cost savings relating to decrements in train services is the more difficult task as our investment framework already provides a basis for the impact of increments in services where these require an increase in the capacity or capability of the network.[69]

6.63 Our proposed approach for dealing with decrements in train services is set out in annex E. It provides information from Network Rail indicating the cases where PTE or TfL sponsored decrements in train services could lead to a material cost saving. We propose that in such instance there would be case by case negotiations on the specific level of the saving and that the saving should then be reflected in Schedule 7 of the relevant franchised passenger operator's track access contract as a negative charge.

6.64 We would welcome your views on our proposed approach.

[69] *Policy framework for investment conclusions*, Office of Rail Regulation, October 2005. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/255.pdf.

PART B: OUR CURRENT ASSESSMENT OF THE STRATEGIC BUSINESS PLAN

7. Assessment of Network Rail's strategic business plan

Introduction

7.1 This part of the document explains the work we have undertaken to date in our assessment of Network Rail's SBP. This work has underpinned the ranges for Network Rail's revenue requirements we have established as part of our initial assessments of the affordability of the governments' HLOSs. In this chapter we summarise the work we have undertaken so far to assess the SBP and in chapter 8 we provide more detail on our initial assessment of HLOS affordability.

Background

7.2 Network Rail submitted its SBP to us at the end of October 2007 and published it on 1 November 2007. The SBP, including a large amount of supporting documentation, sets out and explains the company's proposals for operating, maintaining, renewing and enhancing the rail infrastructure in CP4. The SBP is Network Rail's principal submission to us for PR08.

7.3 The SBP builds on the ISBP, which was published in June 2006. We provided our assessment of the ISBP as part of our advice to Ministers in February 2007. We provided detailed guidance to Network Rail in January 2007 on the required form and content of its SBP (which was summarised in our advice to Ministers).

7.4 The SBP sets out the company's plans for CP4 in the context of the governments' requirements, established by the HLOSs. As such, it makes assumptions about the respective contributions of Network Rail and franchised passenger train operators to delivering these requirements. Network Rail has engaged extensively with train operators and other stakeholders in the preparation of the SBP.

7.5 Following the publication by the governments in July 2007 of their HLOSs, we provided final guidance to the company on our overall expectations for its

SBP.[70] Our final guidance contained five high-level points that summarised our overall expectations of the SBP, namely that it should:

- represent Network Rail's contribution to an efficient whole industry strategy and command substantial support from its industry partners;
- show significant improvements in accuracy and robustness compared to Network Rail's initial plan;
- provide a fuller justification for the activities and expenditure in Network Rail's plan;
- be based on fully justified technical strategies and asset policies; and
- demonstrate how Network Rail is pursuing increased efficiency and improved network availability.

Assessment of the SBP and key milestones

7.6 In our assessment of the SBP we are reviewing and challenging all the material aspects of the SBP in respect of Network Rail's proposed outputs, expenditure, income and access charges. The assessment of the SBP can broadly be separated into three phases:

- phase one – lasted from the end of October 2007 until the end of December 2007. This phase covers our work to produce our initial assessment of the affordability of the HLOSs and also to provide guidance to Network Rail on our expectations for its SBP update;
- phase two – lasts from the end of December 2007 until 3 April 2008, which is the date by which Network Rail needs to have submitted its SBP update to us. In this phase we will continue our review and challenge of the parts of the SBP that we did not complete in phase one. Our expectations for the SBP update are discussed further below; and
- phase three – starts when we receive the SBP update and ends when we publish our draft determinations. In this phase we will review the SBP update against our expectations and complete our assessment.

[70] Our final guidance to Network Rail on its SBP may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-Final_guidence_in_SBP.pdf.

Overview of our work in phase one

7.7 Between receiving the SBP and completion of our initial assessment of the affordability of the HLOSs at the end of December we have had a significant amount of engagement with Network Rail to clarify and challenge the SBP. We have taken advice from consultants on a range of issues, including efficiency and performance. The independent rail reporters are reviewing key parts of the plan (including Network Rail's asset management proposals and its methodology to calculate variable usage charges). Throughout this phase, Network Rail has engaged with us in a positive way and generally responded to our questions and requests in a timely way.

Our consultation on the SBP

7.8 In November 2007 we consulted the industry to ask for its views on the SBP.[71] We asked for comments on issues such as the overall strategy, performance improvements, asset management, management of safety, stations strategy and scope for improvement in delivery and the degree/quality of engagement with Network Rail. We have received 40 responses to the consultation. A list of all the respondents is included in annex B and all the responses that were not confidential have been published on our website.[72]

7.9 Some recurring themes came out in the consultation responses. These include:

- **Performance.** Many respondents did not believe that allowing Network Rail additional funding to meet the PPM target would be good value for money, and that TOCs could deliver this at lower cost. Respondents stated that the performance recovery recently has been due to train operators and Network Rail needs to look to its internal processes to deliver improvements, rather than relying on capital investment. Operators are concerned that the large amount of enhancement work being undertaken may have a negative impact on performance. Several

[71] *Consultation on Network Rail's Strategic Business Plan*, Office of Rail Regulation, November 2007. This may be accessed at www.rail-reg.gov.uk/upload/pdf/cons-NR-sbp.pdf.

[72] The consultation responses may be accessed at www.rail-reg.gov.uk/server/show/ConWebDoc.9053.

operators and PTEs express concern over the use of PPM as the performance measure as it does not capture performance in PTE areas where many flows are on long distance services that start and terminate outside the area. Also the PPM does not differentiate between lightly and heavily used services. Freight operators would like to see freight performance in the targets as cancellation and re-timing of their services can have a big effect on their businesses.

- **Growth and capacity enhancement.** This issue was regarded as the main priority. Many respondents highlighted the high costs of Network Rail's scheme proposals. GRIP was highlighted as a continuing problem (driving additional time and higher cost).[73] There are concerns about Network Rail's ability to deliver all the necessary work; TOCs and others say they can deliver many station enhancements much cheaper than Network Rail. There was a widespread view across the responses that growth is likely to be higher than used as the basis for the DfT HLOS and assumed in the SBP. ATOC specifically highlighted concerns about peak demand into non-London centres.

- **Managing safety.** There was a general welcoming of proposals to achieve the HLOS metric.

- **Possessions strategy and implementation of the seven-day railway concept.** Although generally welcomed, respondents also cautioned that this initiative needs to be taken forward at a detailed local level to ensure that the needs of operators are considered. Some respondents said that the benefits of the concept need to be demonstrated more clearly. The freight operators are particularly concerned about the impact on their operations. Several respondents question the additional costs as the seven-day railway should make better use of expensive plant and machinery which they consider is currently underutilised. Whilst the concept involves more use of single line working, some respondents noted that Network Rail is still removing crossovers which could be important in the implementation of single line working. Many operators, but particularly freight, expressed frustration with the current possession planning arrangements where many jobs are cancelled or altered with short notice.

[73] 'GRIP' is Network Rail's guide to railway investment projects. It sets out the company's processes for project development and delivery.

- **The scope for improving efficiency.** There is a general view that efficiency improvements could be higher (there are a number of references to Network Rail's 'world class' ambitions and respondents considered that, given this, efficiency should be higher). It was noted that the position on efficiency is unchanged since the ISBP, which was seen as a surprise given the sustained efficiency improvements being delivered by Network Rail and outperformance on current targets. Some respondents cautioned us against looking for (significantly) increased efficiency to the detriment of delivery/performance/responding to demand growth. Some respondents said that Network Rail should achieve efficiencies within the company and not just pass the requirements on to its suppliers. In this regard, the project development timescales and levels of overheads are seen to offer significant opportunities for a step change in efficiency. It was also argued by some that there are and will remain in CP4 significant input price pressures, which will reduce the net effect of efficiency improvements.

- **Deliverability.** Some train operators noted that Network Rail will need to concentrate on delivering schemes as it does not have a good record of delivering projects on time or budget;

- **New trains.** There is a general feeling that the numbers specified in the HLOS will be insufficient to meet the projected growth. Several respondents are concerned that there was no mention of depots or stabling facilities for the new trains. Operators have commented on the focus on inter-city routes to London which does not recognise growth outside London or on cross-country services.

- **Stations.** There is a view that Network Rail's costs will be much higher than allowing TOCs to manage station improvement works. Operators also expressed concern at the lack of car parking provision. The modular stations concept was supported, though regional bodies cautioned that the heritage elements of stations need to be preserved and if the costs are less than the current bespoke arrangements.

- **Scotland.** Transport Scotland highlighted some concerns that are specific to Scotland, including highlighting Scottish Ministers' requirements for reduced journey times and to ensure that at least one route from Scotland to England is planned to be available at all times. In addition, Transport Scotland expressed concern about increased maintenance and renewals expenditure in Scotland and question whether Network Rail's projections take full account of what they consider is better asset condition in Scotland.

- **Stakeholder engagement.** We also asked consultees to tell us about the engagement process with Network Rail in the development of the SBP. Train operators said that there is much better engagement by Network Rail with them, though improvements can still be made. However, some PTEs and regional bodies (regional assemblies, county councils) are still concerned at the level of engagement with them. Some respondents felt insufficiently involved and would like more engagement with Network Rail.

7.10 We are grateful to all the respondents to our consultation and for the level of detail in their responses. We are taking account of the specific detailed comments as part of our ongoing assessment. We also expect Network Rail to take account of the issues raised in preparing its SBP update.

HLOS outputs

7.11 We have assessed whether Network Rail in its SBP has set out a programme of work that can achieve the outputs required by the HLOSs, covering the three 'metrics' for performance, capacity and safety; and including specific schemes such as Thameslink, Reading station improvement, the national stations improvement programme (NSIP) and the strategic freight network (SFN).

Performance

7.12 The England & Wales HLOS set sector targets for improving performance, as measured by PPM, and reducing significant lateness. These targets are shown in table 7.1.

Table 7.1: England & Wales HLOS performance targets

Sector	PPM by end of CP4	Reduction in Significant Lateness and Cancellations from 2006-07 to end CP4
Long distance services	92%	36%
London and South-East services	93%	21%
Regional services	92%	27%

7.13 The Scottish HLOS set a target that the PPM for the Scotrail franchise services should reach 92% by the end of 2013-14.

7.14 Network Rail's SBP provided a high level description of how Network Rail, and the TOCs, planned to meet those targets. Network Rail also provided us with detailed plans for each TOC, disaggregated into specific actions to deliver the targets.

7.15 We have reviewed the SBP and the supporting documentation and taken advice from consultants Winder Phillips.

7.16 The performance improvement plans have some positive features. In particular they demonstrate closer working with TOCs and an attempt to quantify the plans. Network Rail also sought the views of the National Task Force (NTF) as it developed its ideas.

7.17 However, overall we do not believe that the plans provide a clear, consistent and robust approach to delivering the targets. Specific problems include:

- overall presentation of the plan: Network Rail set out plans to deliver roughly half the England & Wales target and then further plans to deliver the full target. These plans were costed separately. Many stakeholders did not realise that the total cost of delivering the England & Wales target was £768m. The plans were not clearly presented;

- weak justification for proposed capital projects: some projects had a remarkably high cost compared to the forecast performance improvement. In addition Network Rail failed to demonstrate it had secured the maximum performance improvement from its existing expenditure. It must do this before proposing higher expenditure; and

- lack of detail on significant lateness or freight delays: little specific work was undertaken on the significant lateness part of the England & Wales HLOS and freight delays.[74]

7.18 Network Rail has acknowledged that the plans were not as well developed as they needed to be. It has proposed a significant amount of further technical

[74] Targets for freight delays were not included in the HLOSs, but we will set regulatory targets for Network Rail (see chapter 3).

work, and further joint working with TOCs. The output of this will form part of the SBP update in April. We welcome this further work.

National stations improvement programme (NSIP)

7.19 In the HLOS for England & Wales, the government has provisionally allocated £150m to support investment to improve facilities at approximately 150 intermediate stations, above the expenditure that will be provided to renew and maintain the assets on an ongoing basis. The allocation is made subject to our determination that joint industry plans for the programme are deliverable.

7.20 Network Rail and train operating companies have worked effectively in partnership at both the national and local levels. An industry working group was tasked with driving forward the national stations improvement programme (NSIP) and subsequently the NSIP board was established to take a strategic view of the programme. Network Rail and representatives from train operating companies jointly chair the NSIP board. Each owner group is represented as is ORR and DfT.

7.21 On 24 August 2007, we wrote to the joint chairs of the NSIP board, setting out what we expect the NSIP plans to cover in order for us to determine whether the plans are deliverable. The NSIP plans, contained in the SBP, were published in October 2007. On 20 December 2007 we wrote to DfT setting out the extent to which we considered our August criteria to be satisfied, and outstanding issues that needed to be addressed.

7.22 We now consider that all of our criteria have been satisfied and can therefore determine that the framework is in place to ensure efficient delivery of the NSIP proposals. Network Rail and TOC representatives on the NSIP board are now working with DfT to refine and prioritise the list of station schemes.

7.23 We have today written to DfT, setting out our agreed and detailed understanding of how we consider the joint plans satisfy each of our criteria. We intend to monitor the programme going forwards in accordance with these plans.

Capacity

7.24 The capacity schemes are discussed in paragraphs 7.49 – 7.53.

Safety management

7.25 We have reviewed the safety aspects of the SBP with three purposes in mind:

- to assess Network Rail's plans for complying with its health and safety legal obligations over CP4;
- to assess whether the plans presented by Network Rail on behalf of the industry are sufficient to deliver the HLOS safety specification; and
- to ensure that Network Rail has identified any changes in risk arising from the organisational and operational changes it needs to make to deliver the requirements of the HLOSs, and has plans for managing these changes in risk.

Compliance with health and safety obligations over CP4

7.26 We do not expect the SBP to contain a comprehensive plan to address all of Network Rail's statutory duties. These are part-and-parcel of the running of its business, and monitoring performance in this area is a main plank of Her Majesty's Railways Inspectorate's operating plan. However, we note that Network Rail has, in its SBP, made it quite clear that compliance with statutory health and safety duties is an over-riding obligation.

Delivery of the safety specification

7.27 We have reviewed the plans to deliver the HLOS safety specification submitted by Network Rail on behalf of itself and train operators. We have considered: past industry performance in improving safety; deliverability of the plans; and the assumptions underlying the plans.

7.28 Set in an historical context, and even allowing for the dropping out of the influence of safety improvement measures such as TPWS and the elimination of Mark 1 rolling stock, a 3% reduction of the risk to passengers and workforce over CP4 appear feasible. Delivery of the plans for safety risk improvement does not appear to present any significant problems, although there is a degree of uncertainty around the results delivered given the greater emphasis on softer measures over technical fixes. In addition, there is also some uncertainty regarding possible non-linearities in the way safety risk may change in response to the demands being placed on the rail system over

CP4. However, there is no substantial reason to doubt that the safety specification will be delivered.

7.29 Throughout CP4 we will be working closely with the industry to monitor progress in delivery of the specification so that timely action can be taken should it appear at any stage that the specification would not be delivered.

Management of change

7.30 We have approached our review of Network Rail's management of risk change from two perspectives: the general process adopted; and the specific changes being proposed.

7.31 We have been exploring with Network Rail the processes by which it has assessed, and will continue to assess, the changes in risk that the adoption of the proposed asset and route strategies may present. Based on the evidence we have been presented with we are assured that Network Rail recognises the importance of risk change management.

7.32 The SBP proposes some significant changes in the way Network Rail operates which in turn will present health and safety challenges. We have discussed these changes with Network Rail in order to better understand the assumptions underlying them and the impact they will have. Whilst we have closed out satisfactorily many of the issues we have raised with Network Rail and we expect to close out the majority of the issues ahead of our draft determinations, it is likely that some issues will remain open and will feed into our intervention plans during CP4. Closing out these points is not critical to the safety input to our determinations, but they are issues that are important from a broader safety perspective and we will wish to see them resolved in due course. Therefore, they will feed into our intervention plans during CP4

Operating expenditure

7.33 This part of our assessment is reviewing Network Rail's proposals for some £5.6bn of opex in CP4. Opex is divided into two cost categories: those that we consider are controllable by Network Rail and those that the company has no effective, or limited control over. Some £1.8bn of Network Rail's proposed opex for CP4 is 'non-controllable'. Opex is an important part of Network Rail's overall revenue requirement, with the company projecting it to be some 17%

of its overall expenditure in CP4 (and 19% of its projected gross revenue requirement).

7.34 In our advice to Ministers we explained that Network Rail had included little detailed analysis or justification for its CP4 opex forecasts in its ISBP. The company agreed that much more work was required to improve the robustness of its opex forecasts for CP4. Network Rail has since done some work and provided some analysis to support its SBP, however we do not consider that this is sufficient. This is disappointing and we are engaging further with Network Rail in our ongoing assessment of the SBP. If it does not provide adequate justifications for its opex projections then we will have to substitute our own for its proposals for our draft determinations. We are engaging consultants to support us further in our assessment of opex.

7.35 Network Rail's general approach to supporting its forecasts has largely been to provide a relatively detailed breakdown of its 2007-08 budget and then it has applied its efficiency assumptions to roll forward those 2007-08 costs. In some areas, e.g. insurance and pensions Network Rail has provided specific forecasts.

7.36 Further detail of our assessment of Network Rail's opex proposals is provided in annex C.

Maintenance and renewals

7.37 Our maintenance and renewal (M&R) expenditure assessment is examining Network Rail's proposed CP4 expenditure of £12.5bn for renewals and £5.1bn for maintenance. This proposed expenditure covers the upkeep through day-to-day maintenance and asset renewals of the network's entire physical infrastructure, i.e. track, signalling, civil engineering structures, telecoms, electrification, plant and machinery and operational property (stations, depots and lineside buildings, including control centres and signal boxes).

7.38 Ensuring that Network Rail's revenue requirements are sufficient to fund efficient and effective delivery of maintenance and renewals is not only essential for the delivery of the HLOS output requirements throughout CP4, but also has profound influence on the long-term condition and hence the future viability of the railway network and its ability to accommodate the demands upon it.

7.39 The challenges faced by Network Rail in CP4 are different from those in the current control period. Our ACR2003 determination funded M&R activities that we considered necessary to allow Network Rail to address the immediate issues of post-Railtrack stewardship, especially in respect of safety and performance. PR08 must establish levels of M&R funding that will allow Network Rail to consolidate and continue the progress it has made during CP3 and deliver the required outputs for CP4. But at the same time we expect Network Rail to respond to the challenge to become an ever better asset management organisation. As its maturity in asset management grows, we expect Network Rail continually to improve its ability to judge how best to manage its assets in respect of the scope, timing and effectiveness of its engineering interventions. We expect it to demonstrate clear and quantified justification for its M&R activities with much greater understanding of the life cycle costs of its infrastructure and the outputs that its activities will deliver. We expect it to improve the quality of delivery of its work. Above all, we expect it continually to improve the value for money of all that it does.

7.40 Network Rail has set itself the aspiration to be a world class company, and in this review we are using benchmarking and international comparisons to a much greater extent than in the past. Such work will continue to inform our assessment right through to our final determinations.

7.41 In examining Network Rail's SBP and making our assessment of the levels of expenditure that are justified, we are applying the following key tests.

- What is the quality of the asset policy and policy justification that underpins the proposed M&R activity levels? Do they demonstrate why these activities represent the efficient minimum whole life cost solution for managing the infrastructure?
- How have Network Rail's activity levels been established, and how are they distributed across the network? (Both long-term forecasting with modelling techniques and 'bottom-up' identification of workbank items inform the plans)?
- What outcomes will be generated by the planned level of M&R activities and how they relate to the outputs Network Rail will be required to deliver in CP4?

- Is the derivation of future activity levels based upon good quality asset information?
- Are the activity costs used to translate the proposed activity levels into future expenditure requirements realistic and efficient? What assumptions are made about future efficiency improvements in asset management techniques, technology, processes and delivery methods?
- Even if a given level of activity can be theoretically justified, is it actually capable of being delivered in practice ‘on the ground’?
- Are there any safety issues arising from the SBP plans and/or the assessment we make of them?

7.42 At this stage, our assessment of the SBP has focused most strongly upon the first two of these key tests, i.e. the asset policies and policy justifications, and the methods by which activity volumes have been forecast. Of course, there remains a great deal more to do in the coming months. We will be doing further work to examine the unit costs of core tasks, to assess the efficiency potential, to understand more about how the programme of work is distributed across the network, to assess the deliverability of the whole programme (not least by considering the very significant combined demands of the M&R and enhancement programmes) and to do further analysis of the outputs that will be delivered by the proposed M&R activities.

7.43 The outcome of our challenge process so far reveals a wide variation in the levels of confidence that we can place in the SBP figures. Generally we consider that:

- although in most cases the asset policies have been developed further by Network Rail since 2006, there is still a wide range in their quality. There is a tendency to describe what are judged to be good engineering policies, based on existing practice and historical standards. This is not to suggest that they are necessarily wrong (we recognise the strength of accumulated wisdom and experience) but they are still, to differing degrees, lacking crucial evidence that the nature, scope and timing of interventions implied by the policies are indeed the minimum whole-life-cost way to deliver the outputs and performance required from the assets. This has a significant bearing on our assessment of proposed maintenance and renewal activity levels;

- the linkage between proposed activity levels and the resulting outputs is still quite weak and often remains opaque;

- the infrastructure cost model (ICM) has been improved considerably from the version that underpinned the initial strategic business plan in 2006. A number of calculation errors have been addressed. However, we continue to be concerned about the accuracy of some aspects of activity modelling, particularly in respect of expenditure on civil engineering structures and operational property. The ICM is discussed further below; and

- much more work has been done by Network Rail to assess how it can improve the efficiency of its maintenance delivery operations.

Asset policies

7.44 As part of PR08 the independent asset management reporter (AMCL) has undertaken a detailed review of Network Rail's latest suite of asset policy and policy justification documents. A number of detailed observations are referred to in the asset category specific commentaries in annex C, but in general terms AMCL has provided us with an assessment that allows us to conclude that:

- Network Rail is taking positive steps to establish robust and economically justified asset policies that will support its long-term business planning process and provide increasing clarity about its future funding requirements;

- in some cases, most notably in respect of the management of track and some elements of electrification equipment, Network Rail compares favourably with the levels of maturity being achieved by other rail infrastructure managers and utility companies;

- other aspects of policy have not been developed to the same extent, and considerably more still needs to be done if Network Rail is to deliver the significant efficiencies and performance benefits that we believe will result from truly optimised maintenance and renewal regimes; and

- Network Rail will not be able to take all the steps necessary to optimise its asset management regimes across all asset types in time to inform our PR08 determinations. It must make significant further progress to improve its business planning during CP4, but for PR08 our determinations will need to take account of an improving, but still sub-optimal, asset management regime.

7.45 Further detail on our M&R assessment for the individual asset categories is provided in annex C.

Infrastructure cost model

7.46 Network Rail's infrastructure cost model (ICM) is an important tool for PR08. It developed version 1 for preparation of its ISBP and it has developed the model further and version 2 has been used in the preparation of the SBP. Network Rail has been developing the ICM since 2005. The ICM forecasts activity levels, costs and outputs at a fairly detailed level across the network (some 300 'strategic route sections') over a time horizon of 40 years. A key feature of the ICM is that it translates Network Rail's asset policies into activity and expenditure projections.

7.47 The development of the ICM is a significant undertaking and overall we welcome the progress Network Rail has made in the areas identified in our review of version 1 of the model. In particular we welcome the closer working between the ICM development team and the engineering teams in Network Rail. The independent reporter is currently completing an audit of the model's computational accuracy. In their draft final report, having covered 80% of the forecast spend, no errors with a material impact on SBP forecasts had been identified. We will publish the audit report when complete.

7.48 We do have a number of criticisms of the standard of documentation (and the link between asset policies and model assumptions) and validation of the model. Network Rail also has work to do in updating stakeholders on changes to the model since version 1. The ICM now also includes the calculations of variable costs. We have some concerns about these calculations, which are discussed further in chapter 6.

Enhancements

Enhancement proposals in the SBP

7.49 Network Rail's SBP sets out a significant amount of enhancement expenditure for CP4, which is a response to the growing demand for rail and the requirements of the two HLOSs. Network Rail has included £9.6bn of enhancement projects for CP4 in the SBP, which includes proposed expenditure on schemes to deliver the requirements of the HLOSs and potential further enhancement expenditure. The expenditure is split between:

- DfT projects of £8.4bn in CP4 made up of committed (or baseline) schemes (including access for all and West coast schemes), specified projects (such as Thameslink), projects related to the delivery of the HLOS capacity and performance metrics and projects to deliver further outputs (such as the seven-day railway);

- Transport Scotland projects of £380m in CP4, including Transport Scotland HLOS specified projects (Airdrie to Bathgate and Glasgow Airport Rail Link) and development funding;

- Transport innovation fund (TIF) funded projects of approximately £120m in CP4; and

- third party schemes: approximately £800m on projects funded by third parties, for example associated with the 2012 Olympics.

Initial assessment of the SBP

7.50 We have carried out an initial assessment of the enhancement portfolio in the SBP using a mix of bottom-up (detailed costing) and top-down analysis (primarily benchmarking). We have drawn on input from external and internal advisors, including the independent rail reporters. The key strategic messages arising from our assessment are that:

- the SBP is generally a more robust and rounded plan than the ISBP. Network Rail has taken a more robust overall approach to the plan, with a clearer structure and outputs. For example, there is evidence of proper, clear option analysis. However, there is still a lack of evidence on, or a clear business case for, many individual schemes;

- we have some concerns with deliverability. In particular, Network Rail needs to improve its programme development urgently. Many schemes do not appear to be progressing through the GRIP process. Of the 47 schemes in both the ISBP and SBP around a quarter have progressed by one or more GRIP stages but a third have regressed: This raises concerns on deliverability; and

- we consider that the schemes included in the SBP should be capable of delivering Network Rail’s contribution to the capacity requirements of the HLOSs, although further work is needed, for example to identify whether all schemes included in the SBP are required or whether the schemes are the most efficient way to deliver the capacity requirements of the HLOSs.

7.51 We are continuing to discuss the enhancement programme with Network Rail. Key issues we are addressing ahead of our draft determinations and its SBP update include:

- whether the schemes included in the SBP are the most cost effective way of meeting the HLOS and whether the costs of these schemes in the SBP are efficient;
- Network Rail’s treatment of risk and contingency in its enhancement costs; and
- how interoperability issues have been incorporated, e.g. on the Reading station proposals and the Glasgow airport rail link (GARL) scheme.

7.52 Further detail on our assessment of the enhancement schemes is provided in annex C.

Issues to be addressed in SBP update

7.53 We have identified a number of issues that Network Rail will need to address in its SBP update including: the development of schemes through the GRIP process and development of the strategic freight network.

Efficiency

7.54 The judgements we take on the scope for Network Rail’s efficiency improvement are a key part of our determinations for CP4. Our determinations must provide strong incentives on Network Rail to strive for continuous and sustained improvements in efficiency. Our decisions on the level of efficiency that we consider Network Rail can achieve which is challenging but achievable, without compromising health or safety or creating risks that are not capable of being managed, are an essential part of this.

7.55 At ACR2003 we determined Network Rail’s revenue requirement on the assumption that efficiency could be improved by 31% by the end of CP3. Our assessment of the company's performance over the first three years of the control period suggests that it is broadly on target to achieve this level of efficiency improvement.[75]

7.56 At the start of PR08 we placed the responsibility on Network Rail to provide comprehensive and robust efficiency forecasts as part of its SBP submission. We recognise that the company has undertaken a significant amount of work to inform the efficiency assumptions presented in its SBP. However, we believe that Network Rail has fallen short of providing comprehensive and robust analysis to support its assumptions.

7.57 We continue to review and challenge the work that Network Rail has submitted to us. We are also carrying out our own work and will be using both the results of our review of Network Rail's proposals and the results of our own work when we come to make our judgements for our draft determinations.

Network Rail's SBP

7.58 In its SBP, Network Rail has proposed 'gross' efficiency savings of 17.6% across OM&R, and 'net' efficiency of approximately 12.5%, after adjusting for its view of input price effects (i.e. the effect of input price inflation above that reflected in RPI). In terms of its gross efficiency improvements, Network Rail has proposed annual improvements of 5%, 5%, 4%, 3%, and 2% across the five years of CP4, applied uniformly across OM&R.

7.59 Network Rail's views are underpinned by 'bottom-up' assessments conducted by the company. It also commissioned a number of consultancy studies to support its work, including an assessment of the scope for improvement in renewals efficiency based on internal benchmarking between its territories and an assessment of potential efficiencies in procurement.[76]

7.60 The specific initiatives that Network Rail identified in OM&R are lower than its 17.6% gross efficiency target. In particular, in its SBP the company identified

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[75] Chapter 8 of our annual assessment provides further details: *Annual Assessment of Network Rail 2006-07*, Office of Rail Regulation, September 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/339.pdf.

[76] The documents that Network Rail submitted in support of its SBP, including key efficiency studies, may be accessed on Network Rail's website at http://www.networkrail.co.uk/aspx/4352.aspx.

16.7% for maintenance and 12.6% for renewals in CP4. In addition to these specific improvements, and in order to achieve the 17.6% level of gross efficiency in each expenditure OM&R category, Network Rail has added a 'stretch' element, which it describes as efficiency initiatives that it has not yet identified. For controllable opex, the majority of the company's proposed efficiency is stretch.

7.61 In developing its efficiency proposals, Network Rail says that it has also taken account of the other efficiency studies available, which include the various studies commissioned by EWS, the study conducted for us in 2005 by LEK/Oxera and the initial results from our analysis of the UIC dataset of 13 European infrastructure managers costs (see below). However, it has largely rejected much of the evidence available from these other studies.[77]

Our assessment

7.62 Our work to develop our judgements on Network Rail's scope for improving efficiency in CP4 falls into four broad areas:

- a thorough and detailed review and challenge of Network Rail's proposals and supporting evidence;
- top-down benchmarking analysis, in particular of Network Rail's maintenance and renewals costs against international rail infrastructure managers using econometric analysis; its approach to asset management versus international best practice; and signalling and possessions efficiency relative to its international peers;
- an update of the 2005 LEK/Oxera 'top-down' study, including an assessment of the scope for frontier shift efficiency improvement;[78] and
- further consideration of evidence on the scope for efficiency improvement submitted by other stakeholders, including EWS and the Railway Industry Association.

[77] *Assessing Network Rail's Scope for Efficiency Gains over CP4 and Beyond: A Preliminary Study*, LEK/Oxera, December 2005. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/lek-ox_cp4effgns.pdf.

[78] Frontier shift is a measure of the rate of change in overall productivity in the industry.

7.63 Our work to challenge Network Rail's submission and on the international benchmarking is discussed briefly below.

Review and challenge of Network Rail's work

7.64 We welcome the transparent approach that Network Rail has applied to developing its efficiency proposals. However, we believe that the analysis contained in its SBP significantly understates the scope for efficiency improvements in CP4.

7.65 We are in the process of carefully reviewing and challenging Network Rail's detailed proposals, and have engaged Ernst & Young to support us in this. The work to date suggests that Network Rail's analysis is likely materially to understate the scope for efficiency improvements in CP3. In particular:

- Network Rail's bottom-up efficiency targets have largely been identified by those managers with responsibility for achieving them. We do not consider that this will have resulted in a challenging set of targets;

- the stretch adjustments that Network Rail has made to its overall assumptions do not appear to us to be particularly challenging. Moreover, Network Rail has been unable to provide any robust justification for the level of stretch for each expenditure category. It appears that the stretch assumptions have simply been used to bring the total gross efficiency savings up to the 17.6% level across OM&R, which is the same level of efficiency improvement that the company proposed in its ISBP; and

- whilst we welcome the internal benchmarking Network Rail has undertaken for its renewals work, we are very disappointed that it has been unable to do this for maintenance due to major inconsistencies in its recording of maintenance expenditure across its 48 maintenance delivery areas. This represents a backward step compared to ACR2003 when the internal benchmarking work was integral to the final judgement on efficiency and it increases the importance of our own top-down work.

Our benchmarking work

7.66 As summarised above, we are undertaking a range of benchmarking work to inform our judgements on the overall scope for efficiency improvement in CP4. The top-down benchmarking of maintenance and renewals costs that we are conducting in conjunction with the Institute for Transport Studies at

Leeds University is likely to be central to informing our view on Network Rail's scope for efficiency in CP4.

7.67 With Network Rail, we are using the International Union of Railways (UIC) 'lasting infrastructure cost benchmarking' (LICB) dataset to conduct econometric analysis. The dataset comprises M&R expenditure and other data for 13 European rail infrastructure managers, including Network Rail, for the eleven years to 2006. The initial results from this analysis indicate a significant gap in costs between Network Rail and other infrastructure managers. We are doing further work to test different model formulations, assess the impact of alternative cost drivers, assess the sensitivity of the results to changes in assumptions and to understand the main reasons for the 'gap' between Network Rail and its peers. The analysis to date suggests that, re-based to the end of CP3, Network Rail may be up to 30% to 40% less efficient than the average of the other infrastructure managers.

7.68 We have also collected data from six rail infrastructure managers in Europe and North America at the sub-national level in order to conduct separate quantitative and qualitative analysis to the work using the LICB dataset. The preliminary results again highlight a significant gap in costs between Network Rail and other infrastructure managers.

7.69 We also intend to use the sub-national level data collected for Network Rail to carry out our own internal benchmarking work.

Input prices

7.70 In its SBP Network Rail assumed that it would face input price pressures during CP4 above the forecast increase in the retail price index (RPI). It consequently made reductions to its gross efficiency assumptions to take this into account. The reductions equate to approximately 5% across OM&R for CP4 as a whole.

7.71 Network Rail has submitted to us a detailed quantified assessment of the input price pressures it expects to face in CP4. We are reviewing and challenging this, and are discussing with the company and its consultants its methodology and analysis.[79] Network Rail has told us that it will be updating its input price study as part of its SBP update. We will consider the company's update further to our ongoing review of its existing input price study.

7.72 We said in our advice to Ministers in February 2007 that we were minded to let Network Rail continue to bear input price inflation risk because it is at least partly controllable by the company. However, we also said that the appropriateness of this would depend on the materiality and controllability of the anticipated input price pressures in CP4. It is important to note that Network Rail will benefit from a range of protections against unforeseen cost or revenue shocks in the CP4 price control framework. These include the risk buffer, logging up arrangements for efficient capex overspends and the re-opener provisions. We will take these into account in forming our decision on the treatment of input prices, which we will set out in our draft determinations.

Our judgements on efficiency

7.73 Network Rail has told us that it does not plan to update its efficiency proposals in its SBP update. We are continuing to discuss with the company its views on the various external studies, in particular the significant gap between it and the European infrastructure managers revealed by our top-down work.

7.74 We will use the results of our top-down analysis alongside the other benchmarking studies, our review of the SBP and Network Rail's 'bottom-up' efficiency proposals to inform our judgements on the overall level of efficiency for CP4. We will set challenging but achievable targets based on thorough and sound analysis. In making our overall judgements, we will not rely solely on any one piece of evidence and will not mechanistically apply results from any model. In making our judgements on efficiency we will consider the amount of efficiency improvement that Network Rail can make and the speed at which it should be able to achieve this.

Other single till income

7.75 We have assessed Network Rail's forecasts of other single till (OSTI), which were supported by clearer and more detailed documentation than it provided

[79] The input price study that Network Rail submitted to support its SBP may be accessed on Network Rail's website at http://www.networkrail.co.uk/browse%20documents/StrategicBusinessPlan/Other%20supporting%20documents/LEK%20input%20price%20report.pdf.

for the ISBP. We have focussed our analysis on Network Rail's property income, since other significant streams of OSTI (stations and freight income) are covered by the structure of charges workstream.

7.76 Network Rail commissioned Lambert Smith Hampton (LSH) to review the assumptions underlying its property income forecasts for CP4. Our initial review of this work concluded that some of LSH's recommendations, and the forecasts based on them, could be conservative. We have therefore commissioned DTZ Pieda to carry out a peer review of the LSH work and Network Rail's use of the work in its property income forecast for CP4.

7.77 The DTZ advice has confirmed that LSH's overall methodology is generally robust, but supported our view that Network Rail is too conservative in several areas (for example in the link between 'footfall' and retail rental revenue at major stations). We also have concerns over the treatment of station development income, with some anticipated but uncertain income not included by Network Rail in the SBP. We are following up these concerns with Network Rail.

Delivery

7.78 The assessment of the ability of Network Rail to deliver its work programme in CP4 is an important part of our overall assessment. At this stage of our assessment we are not fully convinced that Network Rail is able to demonstrate how it will be able to deliver the significant level of renewal and enhancement work required in the next control period in a timely and efficient way, without causing disruption to its customers. We are doing further work to examine this ahead of our draft determinations and we have asked Network Rail to provide further information to us as part of its SBP update.

Financial issues

7.79 The SBP included forecasts of the allowed return; the regulatory asset base (RAB), debt, interest costs, amortisation, pensions and corporation tax. The decisions we are taking in relation to these issues in relation to our framework for setting access charges are included in chapter 4 and the assumptions we made for the initial assessments of affordability of the governments' HLOSs in December 2007 are described in chapter 8.

7.80 For its SBP update Network Rail will need to update its forecasts in the following areas:

- fully supported and robust forecasts of the RAB and net debt at 1 April 2009, split between England & Wales and Scotland;
- a calculation of amortisation using our stated policy for CP4 rather than the current CP3 rules; and
- a full financing plan for CP4 and its longer term implications, including its proposals for issuing debt outside the financial indemnity, proposals for hedging, the expected proportion of index linked debt it forecasts to raise in CP4, the assumed maturity profile of its debt during CP4 and the impact on interest costs of its proposals.

Charges

7.81 Our assessment of those elements of Network Rail's SBP that make up its indicative charges proposal is set out in chapter 6 to provide context for our decisions in that area.

SBP update

7.82 The purpose of the SBP update is to ensure that Network Rail provides us with all the information we require to enable us to complete draft determinations. The update:

- gives Network Rail an opportunity to provide us with its proposals for the parts of the SBP that were not properly developed in time for full inclusion in the SBP in October 2007; and
- provides Network Rail with an opportunity to update key parts of the SBP where the justification provided in it, or through the subsequent clarification and challenge meeting process, was inadequate or unconvincing.

7.83 We expect that that the SBP update should only cover issues which could have a material impact on the company's revenue requirements in England & Wales or in Scotland in CP4. In preparing its update we would expect Network Rail to build on the good engagement with the industry that informed development of the SBP.

7.84 The key parts of the plan that we are expecting Network Rail to update are:

- performance: we expect an update of its performance analysis in order to provide a robust plan to deliver the sector performance targets;
- maintenance and renewals: we expect (a) a fuller justification and robust costing of Network Rail's proposals to implement the 'seven-day railway' concept through its engineering access strategy, including economic justification of the benefits to the industry of this; (b) a fuller justification and updated costs (as necessary) of the implications of the intercity express programme (IEP); and (c) the activity, expenditure and revenue requirement implications of any update to its asset policies following our review of these since October;
- enhancements: we expect updated scheme justifications and cost proposals, in particular including more detail for the Reading scheme, implementation of the 'seven-day railway' concept and proposals for development of the strategic freight network;
- structure of charges: we expect updated and complete proposals for all access charges following our review of Network Rail's initial indicative charges, the review of Network Rail's variable usage charge calculations by the rail reporters and Network Rail's own consultation with the industry; and
- a full financing plan for the next control period and its longer term implications (see paragraph 7.80).

7.85 We are discussing with Network Rail its approach to safety assurance/audit, covering both validation of its policies and independent verification that it is putting in place to ensure Network Rail's front-line staff are implementing these effectively. We expect Network Rail to provide further information on these issues as part of its SBP update or earlier.

7.86 During phase one of our assessment of the SBP we started to examine Network Rail's proposals for delivery of its plan. We have further work to do in this area and we have asked Network Rail to provide us with assurances on the deliverability of its SBP. Network Rail will need to demonstrate that it will be able to deliver the renewal and enhancement work on the scale envisaged in the SBP efficiently and without causing undue disruption to train services and passengers and enterprises wanting to move freight on the railway.

8. Initial assessment of HLOS affordability

Introduction

8.1 We made our announcements on the initial assessment of HLOS affordability, on 20 December 2007.[80],[81]

8.2 This chapter provides further information on how we reached our initial views on whether it is likely that the DfT and Transport Scotland HLOSs can be delivered for the public funds (SoFAs) available.

8.3 The chapter is structured as follows:

- background information on how we determined affordability;
- an overview of the DfT's financial forecasts, on which it based its HLOS, and our analysis of these forecasts;
- an overview of Transport Scotland's financial forecasts, on which it based its HLOS, and our analysis of these forecasts;
- our assessment of how much revenue we believe Network Rail is likely to require to deliver the HLOSs; and
- a summary of the results of the affordability assessment.

Background and approach

8.4 In our advice to Ministers we said: 'We must decide if the HLOSs can be delivered for the public funds available.[82] In reaching this decision we must

80 Periodic review 2008 - likely affordability of your high level output specification, letter to DfT, 20 December 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-hlosdif-DfT-201207.pdf.

81 Periodic review 2008 - likely affordability of your high level output specification, letter to Transport Scotland, 20 December 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-hlosdif-TS-201207.pdf.

82 *Periodic review 2008: Advice to Ministers and framework for setting access charges*, Office of Rail Regulation, February 2007. This may be accessed at www.rail-reg.gov.uk/upload/pdf/316.pdf.

collate all the relevant information and undertake our own analysis as necessary'. We said we would draw on the following information:

- Network Rail's SBP;
- our view of the key assumptions on which Network Rail's required revenue forecast is based, including efficiency assumptions, and the parameters for the financial framework;
- the information on franchise support costs that DfT and Transport Scotland will provide to us; and
- an analysis of the risks associated with the forecasts.

8.5 We are required to notify the Secretary of State or Scottish Ministers formally if we believe that their HLOS may be unaffordable given their SoFA.

8.6 We decided that we should aim to provide the earliest possible indication of whether there was likely to be an affordability problem, in the form of initial advice. In practice the earliest time we could do this was after our initial assessment of the SBP (which represented Network Rail's response, on behalf of the industry, to the HLOSs). We set 20 December 2007 as the deadline for providing this initial advice.

8.7 We based our assessment of the SoFAs on a range for the likely costs of delivering the HLOSs. Because this work was being carried out well before our draft determinations and before we had completed our full assessment of the SBP, we did not consider that it was appropriate or helpful to the governments, to produce a 'spot' estimate of the costs of delivering the HLOSs.

8.8 The main calls on the funds available are:

- base franchise subsidy: this is calculated as the cost of passenger services plus franchise payments to Network Rail minus franchise revenue, before the impact of the HLOS is taken into account. Some DfT franchises are also subject to revenue sharing agreements;
- incremental franchise subsidy: this is the extra subsidy payment to franchises required to deliver the HLOS. This mainly covers additional

rolling stock lease charges and related costs such as depot and stabling costs; and

- Network Rail's net revenue requirements: this is the gross revenue requirement less other single till income. The calculation of the revenue requirement follows the existing building block approach summarised in chapter 2.

8.9 Another influence on the calculation is how enhancement projects are assumed to be funded. DfT and Transport Scotland assumed a mix of RAB funded and 'pay as you go' (PAYG) funding in their SoFAs. In the case of RAB funding, expenditure on renewals and enhancements is capitalised (i.e. added to the RAB). It is then remunerated through the amortisation allowance and the allowed return. Where expenditure exceeds the amortisation allowance and allowed return Network Rail borrows to fund the expenditure. For PAYG funding each pound of capital expenditure is reflected in full in the calculation of access charges in the year it is incurred. As long as Network Rail borrows money to finance a share of its capital expenditure, which is the case in CP3 and forecast for CP4, it means that RAB funding is cheaper than a PAYG approach to funding.

8.10 A significant part of the costs facing a franchised operator are the access charges paid to Network Rail. In producing their franchise subsidy forecasts DfT and Transport Scotland included estimates of these costs. In calculating Network Rail's revenue requirement for the initial HLOS affordability assessments we calculated new implied access charges and hence we adjust for this in our overall assessment.

8.11 For the purposes of the affordability calculation we need to take account of third party income, which is income that Network Rail receives from sources other than TOCs' access charges (or government grants in lieu of access charges).

DfT's financial forecasts

8.12 The DfT provided an analysis of its forecast financial position in its 'Delivering a Sustainable Railway' White Paper.[83] DfT also provided us with detailed, commercially confidential data underpinning its financial forecasts, including:

- forecast base (before changes expected as a result of the HLOS) revenue and costs (and hence subsidies to be paid by DfT or premiums received) for each of the franchised operators;
- a risk analysis, including forecast impact of revenue sharing arrangements for those franchise operators which have them; and
- forecast incremental franchise costs, mainly assumptions on the number of extra rolling stock vehicles required to deliver the HLOS and their leasing costs.

8.13 DfT also provided us with its underlying policy assumptions, including its assumptions on fares, where the policy on regulated fares is unchanged (an RPI + 1% increase each year) and unregulated fares are assumed to rise in line with regulated fares for forecasting purposes.

Our analysis of DfT's forecasts

8.14 We considered how best to assess the information provided by DfT. In principle we could have produced our own forecasts of franchise finances, but we do not believe that duplicating DfT's work is appropriate. However we do need to be assured that the forecasts provided are reasonable.

8.15 We decided to assess the base franchise forecasts against a number of criteria and then give more focus to the incremental costs, as these costs relate to key industry issues, for example how extra capacity should be delivered and how much it should cost.

8.16 We asked Network Rail, as part of its SBP, to set out its view on the number of extra rolling stock vehicles required to deliver the HLOS, on the basis of

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[83] *Delivering a Sustainable Railway*, DfT, July 2007. This may be accessed on the DfT website at http://www.dft.gov.uk/about/strategy/whitepapers/whitepapercm7176/whitepapersustainablerailway1.

discussions with the industry, so that we would have an industry forecast which we could then cost.

Base franchise revenues and costs

8.17 We reviewed the information provided by DfT and assessed against our criteria of consistency, completeness and reasonableness. In terms of consistency we considered whether the forecasts used consistent internal assumptions and whether these were consistent with assumptions made elsewhere in the affordability analysis. We checked completeness in terms of whether all material items were included in the calculation and carried out checks of computational accuracy.

8.18 The most important aspect of the process in terms of applying our judgement was the application of a ‘reasonableness’ test to the forecasts. We excluded some aspects of the forecasts from this test, mainly the policy assumptions on fares. DfT sets regulated fares and hence we used the DfT assumptions. Changes in unregulated fares partly follow regulated fares but are subject to decisions by individual operators. We did not see any basis for changing the DfT assumptions.

Franchise revenues

8.19 Franchise revenues are forecast to increase by 8% per annum over CP4, which is below recent trend forecasts, but still constitutes rapid growth. The forecast revenue increases are fundamental to the affordability calculations because they inject an extra £1.6bn of annual revenue and allow a large increase in the proportion of railway costs covered by the farepayer rather than the taxpayer. But the forecasts are below those assumed by some franchise bids and hence some risk adjustment has been applied.

8.20 It is impossible to say with certainty whether rapid revenue growth will continue. Revenues would be affected by an economic slowdown. However we consider that the forecasts are reasonable and are consistent with DfT’s HLOS growth assumptions.

Franchise costs

8.21 We considered the different components of franchise costs: staff, other operating costs and rolling stock lease charges. We produced our own estimates of payments of access charges to Network Rail by franchisees, hence the only issue was to net out any double counting given that estimates for these were included in the franchise costs.

8.22 The staff and other operating costs forecasts are consistent with the forecasts of the NMF (an industry forecasting model jointly developed by DfT, Transport Scotland, ORR, Network Rail and RSSB) and appear to be reasonable. However it could be argued that the assumed small cost increases during a period of significant demand growth could be challenging. We took this into account in our overall analysis (see below).

8.23 Rolling stock lease charges are a function of rolling stock numbers and lease charges and are largely governed by existing contracts or known changes. We believe the forecasts are reasonable.

Incremental impacts

8.24 DfT estimated that at least 1300 extra vehicles would be required to deliver the extra capacity. In its SBP Network Rail estimated more than 1500.

8.25 The main reason for differences between the DfT and Network Rail centres on the operational implications of introducing longer trains in terms of over what part of the day longer trains will need to be run to deliver a workable timetable.

8.26 DfT had only carried out limited analysis of depot and stabling requirements and Network Rail did not include any volume/cost estimates in its SBP.

Other issues

8.27 We noted that DfT had not assumed any additional franchise revenues from the enhancement programme. Our own estimates suggested extra revenue would be generated, although this is sensitive to assumptions on the timing of capacity increases.

Summary

8.28 In summary, our analysis of the DfT forecasts is that:

- the forecasts are dependant on a continuation of strong revenue growth and effective cost control by the TOCs. As such, here is a risk the outturn position will be worse than forecast. However we note that DfT has made explicit provision for downside risk in its forecasts, including possible risks to franchise revenues. We have therefore used DfT's base franchise revenue calculations in our forecast;

- although there must be some risk that the franchise costs will be higher, when we considered the whole financial picture (e.g. assumption on no net revenue benefits from enhancement projects), the subsidy forecasts are not unreasonable. We have therefore used DfT's base franchise cost calculations in our forecast; and

- there is considerable uncertainty over the numbers of new vehicles required to deliver the HLOS and associated depot and stabling costs. We therefore adopted a range for our affordability assessment. There is still further work to be done on the number of additional vehicles required to deliver the HLOS.

8.29 We used DfT's estimate for the number of new vehicles required to calculate the lower end of our range, and Network Rail's estimate to calculate the higher end. We made our own estimates of depot and stabling costs, again in a low/high range, with simple assumptions on how these would be funded. We made separate risk adjustments for our range. At the high end we added £225m to the incremental franchise costs over CP4; at the low end we added £50m.

8.30 DfT recently published a rolling stock plan which has provided more information of DfT's plans. We will take this into account in our final assessment of HLOS affordability.[84]

Transport Scotland's financial forecasts

8.31 Transport Scotland provided us with commercially confidential financial forecasts covering base and incremental (due to the HLOS) costs for both Network Rail and the Scotrail franchise. These were in the form of:

- their 'rail business plan', a comprehensive summary of Scottish rail finances, including Network Rail revenue requirements, costs of major projects and franchise subsidy (including incremental rolling stock and other franchise costs); and

[84] 'The rolling stock plan, published January 2008, may be accessed at http://www.dft.gov.uk/pgr/rail/pi/rollingstock/rollingstockplan.

- a base-year ‘profit and loss’ statement for the franchise demonstrating the relationship between the franchise support in the rail business plan, payments expected from the franchise to Network Rail, and franchise operating costs and revenues.

Our analysis of Transport Scotland’s financial forecasts

8.32 The franchise financial picture is simpler in Scotland than in England & Wales, with Scotrail the only call on Transport Scotland franchise support. As in the case of England & Wales, we reviewed the franchise costs supplied by Transport Scotland against our criteria of consistency, completeness and reasonableness.

8.33 We compared the franchise subsidy forecast assumed in the rail business plan with the base year franchise economics, in order to satisfy ourselves that the forecast subsidy was reasonable. We concluded that, based on likely extrapolation of current franchise costs and revenues, the franchise support forecast looked reasonable, and have used Transport Scotland’s base franchise subsidy forecast in our calculations.

8.34 The incremental franchise costs in Scotland were presented along with the project infrastructure costs, and their scale meant that they were not material to the matching decision.

Our assessment of Network Rail’s revenue requirement

8.35 Our assessment of Network Rail’s revenue requirements was based on a range, which covered what we considered to be the likely uncertainty around the revenue requirement. We wanted to be as certain as we could be that our final determinations will be within this range.

8.36 Our assessment has been explicitly focused on the affordability of the two HLOSs. For this specific purpose we have excluded from our calculations expenditure that Network Rail included in the SBP which is not essential to deliver the outputs in the HLOSs. This expenditure may be justified in its own right (for example, to move towards a 'seven-day railway') and, subject to remaining within the SoFAs, we will consider whether it should be funded by access charges during CP4 through our determinations. In some cases we have asked Network Rail for further justification for this proposed expenditure.

Approach

8.37 We have produced separate calculations for the revenue requirement for England & Wales and Scotland, although in the time available we only carried out limited analysis of specific issues related to Scotland.

Expenditure and efficiency assessment

8.38 We have produced ranges for efficient operating, maintenance, renewal and enhancement expenditure in CP4. The detail on this is described further in chapter 7. We have assumed that Network Rail could achieve gross efficiency savings of between approximately 21% and 30% in OM&R during CP4, before any adjustment for input price inflation above RPI. At the upper end our estimate is informed by, amongst others, the assessment of the UIC dataset and work being carried out by Oxera updating the 2005 LEK/Oxera study. At the lower end our estimate is based on Network Rail's 17.6% assumption, to which we have added our initial estimate of frontier-shift efficiency of approximately 5% over CP4. Our gross efficiency estimates have been adjusted for assumptions on input price inflation, although we have not concluded on the treatment of this for CP4 yet. At the upper end we have made no reduction for possible input price inflation in the efficiency estimate. At the lower end we have reduced our gross efficiency estimate of 21% by approximately 5%.

Third party income

8.39 We have established a range for third-party income. This covers commercial property income/land disposals, non-franchised passenger operator and freight operator access charges, depot charges, and other income (such as connection agreements). At this stage we have put a range around Network Rail's projection in its SBP.

Schedule 4 and 8 expenditure

8.40 At this stage we have put a range around Network Rail's projections in its SBP. Since Schedule 4 and 8 expenditure appears in both the Network Rail and franchise parts of the calculations and nets out, it is ultimately not relevant to the affordability calculation.

Summary of expenditure assessment

8.41 Tables 8.1 and 8.2 summarise our range for the possible Network Rail total efficient expenditure in CP4 in England & Wales and Scotland to deliver the HLOSs.

Table 8.1: Expected range of total Network Rail CP4 expenditure in England & Wales to deliver the HLOS

£m (2006-07 prices)	Low	High	SBP	CP3
Maintenance	3,810	4,250	4,650	5,330
Controllable opex	2,920	3,480	3,430	4,240
Non-controllable opex	1,460	1,930	1,690	1,110
Schedule 4 and 8	410	770	450	450
Renewals	7,770	10,030	11,000	12,090
Enhancements	5,670	7,400	8,080	2,430
Tax	0	0	70	0
Total expenditure	**22,040**	**27,860**	**29,370**	**25,650**

Table 8.2: Expected range of total Network Rail CP4 expenditure in Scotland to deliver the HLOS

£m (2006-07 prices)	Low	High	SBP	CP3
Maintenance	410	460	470	540
Controllable opex	290	350	340	450
Non-controllable opex	120	180	150	120
Schedule 4 and 8	50	90	50	40
Renewals	1,090	1,340	1,490	1,380
Enhancements	320	350	350	0
Tax	0	0	20	0
Total expenditure	**2,280**	**2,770**	**2,870**	**2,530**

Financial assumptions

8.42 In order to calculate our ranges for the revenue requirements in England & Wales and Scotland we have made a number of assumptions on the financial framework, including the value of the RAB in England & Wales and Scotland at the start of CP4, the amortisation of the RAB, the allowed rate of return on the RAB and net debt levels. The building block approach we use to determine the revenue requirement is explained further in chapter 2.

CP4 starting position

8.43 We have made some adjustments to Network Rail's SBP forecasts of RAB and net debt at 1 April 2009 to be consistent with the rest of our assumptions on the expected CP3 outturn. Both the RAB and net debt were split between England & Wales and Scotland on the basis explained in our advice to Ministers and discussed in our December 2005 initial assessment of the CP4 revenue requirement.[85] We have assumed that the RAB at 1 April 2009 is £29,143m for England & Wales and £3,342m for Scotland and that the net debt at 1 April 2009 was £18,741m for England & Wales and £2,292m for Scotland.

Amortisation

8.44 In its SBP, Network Rail used the existing rule based approach to calculate amortisation. It calculated £1,740m per annum for England & Wales and £210m per annum for Scotland. We have used our new policy and calculated the amortisation charge based on long-run steady state renewals.[86] This gives a range of £1,170 - 1,520m per annum for England & Wales and £140 - £210m per annum for Scotland.

Allowed return

8.45 Network Rail used an assumption of 4.5% (real, vanilla[87]) in the SBP for the allowed return. For our assessment we assumed a range of 4.1% - 4.7% (real, vanilla). The range for the allowed return is based on advice provided to

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[85] *Periodic review 2008: Initial assessment of Network Rail's CP4 revenue requirement and consultation on the financial framework*, Office of Rail Regulation, December 2005. This may be accessed at www.rail-reg.gov.uk/upload/pdf/264.pdf.

[86] *Periodic review 2008: Financial issues update and further consultation*, Office of Rail Regulation, September 2007. This may be accessed at www.rail-reg.gov.uk/upload/pdf/pr08-financial-issues-let-060907.pdf.

[87] A vanilla return is a pre-tax cost of debt and a post-tax cost of equity (i.e. it excludes any tax adjustment to the cost of debt or cost of equity).

us by CEPA.[88] An allowed return in this range should enable Network Rail to achieve a comfortable investment grade credit rating.

Corporation tax

8.46 Network Rail forecast average corporation tax payments in the SBP for CP4 of £14m per annum for England & Wales and £4m per annum for Scotland. Given that we are going to adjust for the CP3 overfunding of corporation tax by holding an amount on account that we will then set future forecast corporation tax payments against, we have assumed that there is no corporation tax allowance in CP4, i.e. any amount that we would have funded has been set off against the amount held on account.

Capitalisation of renewals and enhancements

8.47 We have assumed that all capital expenditure[89] is added to the RAB rather than being remunerated on a PAYG basis, whereas the two governments assumed in their SoFAs (as discussed above) that there would be some PAYG funding.

Combining financial and expenditure assumptions to produce ranges

8.48 We have estimated a range for the revenue requirement using the same approach as in our advice to Ministers in February 2007. This involves basing the lower estimate for the revenue requirement on a combination of our low expenditure projection with the higher rate of return. This illustrates a situation where, in order to manage the increased risk associated with achieving greater efficiencies, a higher return is provided. Our upper estimate is a combination of our high expenditure projection and lower rate of return. This illustrates a situation with reduced risk associated with achieving lower efficiencies and hence a lower return is provided. These combinations are purely illustrative. There are no pre-determined relationships between any given level of expenditure and the financial assumptions. The specific levels

[88] *Risk adjusted cost of capital for Network Rail*, a report by CEPA, June 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-cepa-risk-jun07.pdf.

[89] In order to make the HLOS affordability assessments more comparable to the SBP and the governments' SoFAs we did not add reactive maintenance costs to the RAB but assumed they were funded on a 'pay-as-you-go basis'. This does not have a material effect on the revenue requirement.

for all the building blocks of the revenue requirement will be determined as part of a 'balanced package' for our draft determinations.

Assessment of the possible ranges for the CP4 revenue requirement

8.49 Tables 8.3 and 8.4 show the total revenue requirements that we consider are necessary to deliver the HLOSs.

Table 8.3: Expected range for total Network Rail CP4 revenue requirement in England & Wales to deliver the HLOS

£m (2006-07 prices)	Low	High	SBP	CP3
Maintenance	3,810	4,250	4,650	5,330
Controllable opex	2,920	3,480	3,430	4,240
Non-controllable opex	1,460	1,930	1,690	1,110
Schedule 4 and 8	410	770	450	450
Amortisation	5,830	7,620	8,680	6,970
Allowed return	7,550	6,950	7,700	7,200
Tax	0	0	70	0
Gross revenue requirement	**21,980**	**24,980**	**26,670**	**25,310**
Third party income	(1,790)	(1,390)	(1,590)	(1,990)
Schedule 4 and 8	(410)	(770)	(450)	(450)
Revenue requirement to deliver the HLOS	**19,790**	**22,830**	**24,630**	**22,870**

Table 8.4 Expected range for total Network Rail CP4 revenue requirement in Scotland to deliver the HLOS

£m (2006-07 prices)	Low	High	SBP	CP3
Maintenance	410	460	470	540
Controllable opex	290	350	340	450
Non-controllable opex	120	180	150	120
Schedule 4 and 8	50	90	50	40
Amortisation	700	1,070	1,070	830
Allowed return	870	770	870	840
Tax	0	0	20	0
Gross revenue requirement	**2,440**	**2,910**	**2,970**	**2,820**
Third party income	(140)	(110)	(120)	(140)
Schedule 4 and 8	(50)	(90)	(50)	(40)
Revenue requirement to deliver the HLOS	**2,250**	**2,710**	**2,800**	**2,640**

Results of our initial affordability assessment

8.50 Table 8.5 summarises the figures used in our calculations. Our overall assessment has been made as follows:

- starting from the SoFA we subtracted the forecast base franchise subsidy which was the same in the low and high case;
- we then subtracted the incremental subsidy required to deliver the HLOSs. This figure varied in the low and high reflecting assumptions on rolling stock numbers and depots/stabling assumptions;
- to calculate the funds available to Network Rail we then added the payments assumed to be made by franchised operators to Network Rail; and
- the resulting total was then compared to the Network Rail revenue required to deliver the HLOS to calculate a ‘surplus’ or ‘deficit’ of funds.

Table 8.5: Results of the affordability calculation for CP4

£million 2006-07 Prices	**England & Wales**		**Scotland**	
	Low	**High**	**Low**	**High**
SoFA	**13,302**	**13,302**	**3,600**	**3,600**
Less base franchise subsidy	*(3772)*	*(3772)*	*(1533)*	*(1533)*
Less incremental franchise subsidy	*(1106)*	*(1281)*	*(83)*	*(83)*
Plus franchise payments to Network Rail	*14,414*	*14,414*	*750*	*750*
Funds available to Network Rail	**22,840**	**22,660**	**2,730**	**2,730**
Less Network Rail revenue requirement to deliver the HLOSs	*(19,790)*	*(22,830)*	*(2,250)*	*(2,710)*
Surplus/(deficit)	**3,050**	**(170)**	**480**	**20**

Note: the surplus/deficit is rounded.

Final assessment of HLOS affordability

8.51 In our draft determinations we will publish what we expect to be our final assessment of the affordability of the HLOSs. If we conclude that either HLOS is not affordable we will issue a notice to the Secretary of State or Scottish Ministers and there would be an opportunity for Government to revise the specification or the funds available.

8.52 We will take account of the new information received in the April update of the Network Rail SBP. We will also take account of the Rolling Stock Plan published by DfT. Network Rail, the TOCs and DfT are working closely together to align rolling stock and infrastructure requirements in terms of platform lengthening, power supplies and other issues.

8.53 Any revisions to the base franchise forecasts provided by DfT or Transport Scotland will also be taken into account.

PART C: OUR DECISIONS ON NETWORK RAIL'S EARLY START PROPOSALS

9. Early start

Introduction

9.1 In this chapter we set out our decisions for the early start programme.

9.2 We are approving early start for a range of work now and expect to announce our decisions on further early start work in our draft determinations.

Background

9.3 We set out our policy on 'early start' in our advice to Ministers document. We said that without sufficient clarity on the required deliverables (or the allowed revenue/expenditure) there is a risk that Network Rail could delay investment at the start of CP4. We are keen to minimise the risk of this arising, which could have a detrimental impact on Network Rail's customers and funders. Delay could also heighten uncertainty and hence costs in the supply industry.

9.4 We asked Network Rail to propose in its SBP expenditure and outputs for the first year of CP4 (2009-10) that it considers should qualify for the early start programme. In order to qualify for consideration for early start funding the investment would have to have a defined (observable/measurable) output, have clear and agreed dates for delivery, have firm cost proposals, and have funder support (if relevant).

9.5 Network Rail set out in its SBP the outputs it proposes for early start decisions on the funding for the first year of CP4, in order for it to have sufficient certainty in order to proceed with the work. This work covers:

- four specific signalling renewal schemes;
- eight specific enhancement schemes;
- Network Rail discretionary fund (NRDF);
- national stations improvement programme (NSIP); and
- access for all programme.

9.6 We have reviewed the plans for these schemes and set our decisions on funding for 2009-10 below.

Signalling schemes

9.7 Network Rail proposed four signalling renewal schemes for early start funding: Nottingham, Walsall-Bescot, Wolverhampton and Cardiff. The early start proposals for these schemes covered approximately £250m of signalling renewals expenditure.

9.8 Network Rail has not provided us with sufficient detailed information on these schemes or justified why they should be included as part of an early start programme. Therefore, we are not making any specific early start allowance for these. However, our review of Network Rail's CP4 signalling renewals has not shown any reason why these should not progress as part of its ongoing renewals programme on an efficient basis. We note that Network Rail may be making financial commitments on these schemes ahead of our final determinations. In making our judgements on efficiency improvement for CP4 we will take account of the stage of scheme development (having satisfied ourselves that the scheme costs are not unreasonable).

Enhancement schemes

9.9 Our proposed treatment varies for the eight schemes, given their different nature.

- **Airdrie to Bathgate**: work on this scheme is due to start during 2008-09. We have written to Network Rail and Transport Scotland to confirm that we are content to allow a RAB addition for the efficient work in CP3. We approve this scheme for early start subject to the final HLOS/SoFA matching process in CP4.

- **Kings Cross**: Work on this scheme started in 2007-08. We have previously written to Network Rail and DfT saying that we are content with adding the CP3 efficient expenditure to the RAB. We cannot provide anything further for CP4 at this stage as we have not yet completed our assessment of the CP4 costs and outputs for this scheme. We intend to prioritise our assessment of the scheme and may be able to confirm specific early start funding for CP4 ahead of, or in, our draft determinations.

- **Thameslink**: We have effectively agreed the go ahead for this scheme subject to the HLOS/SoFA matching (for which construction has already started in CP3) through our letter recognising the arrangements (including the protocol) between Network Rail and DfT.

- **Reading, Birmingham New Street, SW main line 10 car, Bletchley-Milton Keynes and North London Line**: We cannot set out any early start funding for these schemes at this stage. Network Rail has not yet provided us with sufficient detail on the scope and costs of these schemes. We have asked Network Rail to provide this information as part of its SBP update or earlier. Given sufficient information we intend to set out our decisions on early start funding in our draft determinations.

Network Rail discretionary fund (NRDF)

9.10 We support continuation of the NRDF in CP4, subject to funds being available following our completion of our final assessment of HLOS affordability. However, we do not think that it is essential that we provide Network Rail with confirmation on early start funding for NRDF now. The NRDF schemes are all small-scale schemes and Network Rail should be able as part of its ongoing business planning to start development of NRDF for 2009-10 as necessary. Moreover the NRDF programme does not relate to any specific outputs and therefore by definition the company has some flexibility over the timing of delivery of the actual outputs taken forward. We intend to set out our early start funding decision on this in the draft determinations.

National stations improvement programme (NSIP)

9.11 NSIP differs from NRDF in that it is a separate and defined requirement in the England & Wales HLOS. As set out in chapter 7, we have completed our determinations of the deliverability of the NSIP proposals and can confirm that we agree to early start funding for NSIP, which will include some expenditure during the remainder of CP3, which we will take account of as part of the overall NSIP funding allowance.

Access for all

9.12 We support the continuation of this programme, which is governed by a protocol and funded through an existing, ongoing capped annual expenditure allowance.

Annex A: Specific objectives for PR08

Our specific objectives for PR08 are:

- To set Network Rail's access charges such that they are:
  - so far as practicable, cost reflective and therefore provide good signals to users and funders; and
  - neither higher nor lower than they need to be to enable the high-level outputs to be delivered on an efficient and sustainable basis, and to provide value for money.
- To set Network Rail's outputs:
  - with improved definition (e.g. capability, availability, reliability), to focus Network Rail planning/management, and to facilitate measurement of outcomes;
  - so that they are targeted on what users and funders want from the railway and, wherever practicable, are based on final outputs rather than inputs; and
  - on a forward-looking basis, with a trajectory set in the short, medium and long-term, to an appropriate level of disaggregation that challenges Network Rail to better understand the drivers of good performance in all time frames.
- To improve incentives, to:
  - deliver continuous improvement in operations and maintenance and renewal/enhancement procurement efficiency;
  - optimise cost/quality trade-offs, based on evidence of what railway users value;
  - balance outputs in different time frames (e.g. performance in the short and longer term);
  - challenge Network Rail to improve its knowledge/understanding of assets, especially its ability to predict the impact of changing patterns of usage and ways of working to optimise the extent/cost of accommodating forecast/emerging demand;
  - develop Network Rail's planning framework and asset knowledge; and
  - promote continuous improvement in health and safety.

Annex B: SBP consultation responses

1. The respondents to our consultation were:

- Arriva
- ATOC
- Carillion
- CBI
- Centro
- City of London
- Cornwall County Council
- Devon County Council
- DfT
- East of England Regional Assembly
- East Sussex County Council
- Essex County Council
- EWS
- First Group
- First ScotRail
- Freightliner
- Greater Manchester PTA
- International Power
- London Midland
- Merseytravel
- National Express Group
- Norfolk County Council
- North Yorkshire County Council
- Northern Rail
- PTEG
- Rail Freight Group
- Railfreight Interchange Investment Group
- Railfuture
- Railway Industry Association
- Southeastern
- South East England Regional Assembly
- South Yorkshire PTE
- South West England Regional Assembly
- Transport for London
- Transport Scotland
- Virgin Trains
- Welsh Assembly Government
- West Anglia Routes Group
- West Midlands Regional Rail Forum
- Yorkshire Forward

2. All the responses that were not confidential have been published on the ORR website.[90]

[90] The consultation responses may be accessed at www.rail-reg.gov.uk/server/show/ConWebDoc.9053.

Annex C: Detail of our SBP assessment

1. Further to chapter 7, this annex provides further detail on our assessment of Network Rail's expenditure projections in its SBP.

Opex

2. Network Rail's general approach to supporting its SBP forecasts has largely been to provide a relatively detailed breakdown of its 2007-08 budget and then it has applied its efficiency assumptions to roll forward those 2007-08 costs. In some areas, e.g. insurance and pensions Network Rail has provided specific forecasts.

3. The main concerns we have with the SBP opex forecast are:

- generally, Network Rail has told us what it is planning to do in 2007-08 but it has not justified why it needs the amount of resource it has included in the SBP to efficiently carry out these activities;
- Network Rail has not yet adequately explained the difference between the opex numbers included in the SBP and the ISBP and it has also not fully reconciled the SBP to actual expenditure in 2006-07;
- Network Rail has not yet adequately explained how the costs in 2006-07 compare to the rest of CP3, i.e. where and how it has achieved the CP3 efficiency savings;
- Network Rail has not yet justified the efficiency assumptions it has applied to opex;
- Network Rail has not done enough work on the allocation/attribution of costs to Scotland and are allocating too much of its GB-wide/headquarters costs between England & Wales and Scotland instead of directly attributing them; and
- it is not clear that the overhead and project engineering costs transferred out of opex in the SBP are consistent with the overhead and project engineering assumptions in the maintenance, renewals and enhancement unit costs used for the SBP.

4. Ahead of our draft determinations we will be focusing on resolving the above issues and in particular:

    - reviewing the allocation/attribution of costs to Scotland;
    - understanding the difference between the SBP and the ISBP and how the SBP compares to actuals in 2006-07;
    - verifying that the assumptions on the transfer of overhead and project engineering opex costs to renewals, maintenance and enhancements is consistent with the overhead and project engineering assumptions used in the SBP; and
    - refreshing the work we did on the top down benchmarking of Network Rail's opex costs.

5. We have appointed consultants to assist us in addressing some of the material issues. Consultants will support us by: undertaking some high-level benchmarking of Network Rail's opex; benchmarking total employment costs; reviewing Network Rail's insurance costs proposals; and reviewing its costs for signalling and train control.

Maintenance and renewals expenditure

6. The following paragraphs provide some more detailed descriptions, by asset group, of our current assessment of the SBP.

Track

7. Before taking efficiency gains into account, Network Rail's SBP sets out a case for spending £3.9bn on track renewals across the whole network, of which £0.4bn is in Scotland. In real terms this is a little below CP3 expenditure, and it commences a reducing trend of track renewals activity that is expected to continue in CP5 and CP6. Nevertheless, the SBP proposes extensive track renewal volumes in CP4: over 900 km of rail renewal (3.1% of the network), almost 700 km of new sleepers (2.4%) and 750 km of ballast replacement (2.6%) per annum. It also proposes to treat the equivalent of some 450 units of switches and crossings (2.4%) each year, of which 360 are intended as full renewals. The remaining equivalent of 90 units will be subject to partial renewal or rationalisation.

8. AMCL's review of the track asset policies has concluded that they are comprehensive and founded on sound engineering principles and judgment. The policy documents are considered to be the best formulated of all the asset categories, with most detail and containing significant differentiation between the policies to be applied to different types of railway and route. Even so, there is still more work for Network Rail to develop more robust cost-risk analysis to demonstrate that the interventions and timings of inspection, maintenance and renewal activities do actually reflect the lowest whole life cost.

9. Network Rail has also made progress in updating the ICM, especially in correcting its previous tendency to over-estimate renewal requirements on rural routes where the policy is to life extend and partially renew as required. This effect had previously significantly distorted renewal volumes for Scotland. Switch and crossing (S&C) renewal volumes have also been reduced from previous estimates, reflecting both the opportunities to carry out significant volumes of mid-life refurbishment and life extension and the need to balance activity levels with the demand for S&C work in the proposed enhancements programme.

10. As the high volume of renewals activity continues in CP4, there are significant opportunities for Network Rail to deliver efficiency gains. Its plans to implement modular S&C renewals should be supplemented by real improvements in the productivity of plain line renewals too, and Network Rail is proposing to buy more high output renewals equipment to improve delivery in constrained engineering access on the primary routes.

11. In addition to its renewals plans, Network Rail has also been reviewing its track inspection and maintenance activities much more critically than they were in ACR2003, with the result that significant opportunities for productivity gains and delivery quality are incorporated within the SBP.

12. Overall, our assessment of the SBP and the track asset policy leads us to consider that the track maintenance and renewal activity volumes are reasonably well substantiated. However, there is still considerable work to do. The main tasks to progress our assessment to a final conclusion are:

- to completely satisfy ourselves that the CP4 plan activities are well justified by corroborating the top-down modelling of asset policies with bottom-up detailed work plan sampling;
- to analyse further the outputs, especially in terms of HLOS performance targets, that will be delivered by the track M&R activities;
- to ensure that the deliverability of the track M&R programme has been robustly assessed, and to satisfy ourselves in regard to Network Rail's proposals for ensuring that work is delivered to a quality that minimises whole life costs; and
- to consider further the efficiency opportunities that exist in CP4.

Signalling

13. The pre-efficiency figure for signalling renewals in the SBP is £2.7bn (of which £0.2bn is in Scotland). Almost half of this figure is for full or partial renewal of signalling equipment and a further 23% is for life extension and refurbishment of existing equipment. Other significant areas of expenditure in CP4 will include the start of implementation of ERTMS (from trial through to early stages of roll out, including significant train fitment costs) and increased expenditure on level crossings.

14. In assessing signalling renewals we are able to build upon the detailed work that we did in the medium term signalling review[91] to determine the activity levels in CP3. We have therefore already satisfied ourselves about the validity of the method employed for determining the remaining asset life of signalling interlockings (SICA) and hence, subject to some further verification, we can have a good degree of confidence in the signalling renewals workbank, the proposed timings of the major and partial renewals and the technical policies.

15. One of the most significant changes addressed by the SBP is, of course, the effect of ERTMS on the renewals proposals for full conventional signalling equipment. The overall volume of the latter has been reduced, to be balanced by more life extension and partial renewals. Network Rail is now proposing to renew signalling at an average rate of 1155 signalling equivalent units (SEUs)

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[91] *Signalling Review – final conclusions of the medium term review*, Office of Rail Regulation, December 2005. This may be accessed at www.rail-reg.gov.uk/upload/pdf/269.pdf.

per annum through CP4. Although this represents a very considerable uplift on its current delivery rate in CP3 (a current average of 740 SEUs per annum), it is still considerably below the rate of renewal that we concluded in our medium term signalling review would be necessary to maintain a steady state asset condition without the introduction of ERTMS.

16. Inevitably, there is still considerable work for us to do before we can be satisfied about the actual feasibility of sustaining this level of activity through CP4. We also need to understand much more about how Network Rail's proposed programme of signalling renewal and refurbishment will contribute to its performance targets.

Civils

17. Civil engineering structure assets (bridges, viaducts, tunnels, retaining walls, coastal defences, earth structures and drainage culverts) generally have very much longer service lives than track or signalling systems, and the determination of appropriate activity volumes, and therefore expenditure requirements, required to manage them in CP4 is a particularly difficult assessment to make. Over a number of years Network Rail has been developing a model for structures to provide long-run forecasts of its activities in this area, and we have been tracking this development closely. Indeed, it was the earlier version of this model that persuaded us in ACR2003 that a considerable increase in funding for structures M&R was required.

18. The key issue for this review, and as yet unresolved, is that the present structures forecasting model calculates a very significant further increase in structures maintenance and renewal expenditure. The pre-efficiency figure in the SBP is £2.2bn (of which £0.4bn is in Scotland) which represents a 13% increase on CP3 expenditure, and in volume terms this increase is even greater because of the efficiency gains made during CP3. This is based on Network Rail's assertion that the overall condition of the civil engineering asset portfolio is in decline.

19. At this stage of the assessment, we are unable to accept this case. We do not attribute the proposed spending increase to the definition of the asset policies, but we do consider that it may caused by the way in which the present model applies the policies in practice. Therefore we are continuing to:

- analyse the model, especially in respect of the key input assumptions and data;
- challenge Network Rail to prove that there is a real deterioration in the condition of structures assets to the extent that would justify such as increase in activity and expenditure;
- corroborate the top-down modelling with bottom-up sampling of the workbank plans; and
- probe how future asset condition and structures performance measures are expected to reflect the level of expenditure during CP4.

20. Unless Network Rail can provide far more compelling evidence in support of its SBP, we believe that a continuation of present CP3 expenditure levels in CP4 could be sufficient to maintain the civils assets at acceptable levels of condition and performance – especially when it is recognised that efficiency gains mean that the same level of expenditure actually allows greater volumes of work to be delivered.

Operational property

21. The position with proposed expenditure on the operational property portfolio (managed stations, franchised stations, light maintenance depots, national engineering logistics NDS (national delivery service) depots, lineside buildings and staff accommodation such as maintenance delivery unit buildings) is very similar to the civils asset portfolio. The SBP proposes a pre-efficiency spend of £1.6bn in CP4 (of which £0.3bn is in Scotland). This is a 37% increase over CP3 expenditure, and as with the civils assets, it is based on Network Rail's assertion that the overall condition of the operational property portfolio (especially the franchised stations) is in decline.

22. 45% of this proposed expenditure represents work on managed stations, national delivery service depots, maintenance unit buildings, light maintenance depots and lineside buildings. Much of this expenditure is supported by detailed activity plans in Network Rail's workbanks, and while we still need to complete some further reviews of their justification, we believe that the figures are reasonably robust.

23. The remaining 55% of the proposed expenditure is for maintenance, repairs and renewals of the franchised stations portfolio (approximately 2480 of them). In this case we have far greater reservations about the basis for the SBP figures.

24. Our concerns are generated both by the underlying asset policies and the way in which Network Rail's modelling applies those policies to forecast activity volumes. Although Network Rail has adopted a similar approach in its asset policies to the civil engineering structures portfolio, they are considerably less well developed. We also believe that the forecasting of long-run activity levels is significantly hampered by much poorer asset condition data and a lack of robust connection between maintenance, repair and renewal activities and measurable outputs. Even though a new measure of station condition is now in place and extensive survey data has recently been collected, it has not been built into the forecasting of the activity levels and expenditure set out in the SBP.

25. Once again, at this stage of our assessment we are far from persuaded that any case exists for a substantial increase in expenditure on the operational property portfolio. In our view the definition and application of the asset policies and the function of the ICM appear to be generating excessively high expenditure forecasts which are difficult to reconcile with any form of bottom-up data that is available to us. As with the civils assets, unless Network Rail can provide far more compelling evidence in support of its case, we are minded to hold activity levels at CP3 levels.

Electrification

26. The pre-efficiency figure for electrification equipment renewals in the SBP is £0.5bn (of which approximately £0.1bn is in Scotland). It is some 17% above CP3 figures.

27. AMCL's review of the asset policies identified some key aspects of the electrification asset policy as on a par with the track policy in terms of maturity, but it also concluded that other elements of the policy had yet to reach the same level of development. We are generally satisfied with the approach to modelling CP4 activity levels. For some components such as cables and switchgear, asset age is the key driver for determining the timing of renewals and the modelling is straightforward. However, even though

spending on the AC overhead line contact system remains the largest single element of electrification expenditure, improved knowledge of its condition and deterioration rates has led Network Rail to conclude that large scale wiring renewals can be relatively later (beyond CP4) than it had once thought. Much of the overhead line work in CP4 is therefore life extension through targeted partial renewal and component change programmes.

28. The main tasks to progress our assessment to a final conclusion are:

- review of some further supporting detail to be provided by Network Rail;
- further investigation of the opportunities for more risk based inspection and maintenance of equipment, depending on condition, use and deterioration rates;
- consideration of whether some renewals work and component change programmes could be deferred by improvement in the quality of maintenance delivery;
- to analyse further the outputs, especially in terms of performance, that will be delivered by the electrification activities; and
- to ensure that the deliverability of the M&R programme has been robustly assessed, and to satisfy ourselves in regard to Network Rail's proposals for ensuring that work is delivered to a quality that minimises whole life costs.

Telecoms

29. The pre-efficiency figure for telecoms equipment renewals in the SBP is £0.9bn (of which £0.1bn is in Scotland). Of this, 67% is specifically for the continuation of the GSM-R project to implement mobile communications across the network and the fixed telecoms network (FTN) renewals project. These have been running through CP3 and are planned for completion by the end of CP4.

30. There is strong evidence to support the expectation that the national introduction of GSM-R as the train radio system will produce a measurable beneficial impact on train delays. However, neither the SBP nor any of the supporting documents make reference to this benefit.

31. The scope of work and funding for GSM-R and FTN were set at the time of ACR2003. In this review we are aware of movement in the anticipated final cost and also pressures to amend the scope of the project. It will be necessary to reach a clear understanding of any such changes, either in scope or project costs.

32. Within the remaining 33% of the total telecoms figure within the SBP, there is a proposed increase in expenditure on telephone concentrator renewals. Given that the use of lineside fixed telephones is expected to reduce with the introduction of GSM-R, we will be considering whether the implied volume of concentrator renewals can be fully justified.

Other renewals

33. Other renewals largely comprises spend on information management systems and corporate accommodation.

34. Network Rail has not justified the expenditure included in this section of the SBP. In particular, it is proposing a number of projects that are intended to deliver improvements in business performance and/or efficiency but it has not yet shown that these projects represent value for money for customers and funders.

Enhancements

35. This section provides further detail on our assessment of the enhancement schemes as part of our initial assessment of HLOS affordability. Our initial assessment is based on a combination of:

- bottom-up review of project costs, risk allowances and scope (where feasible);
- top-down analysis, primarily involving benchmarking; and
- an assessment of the potential for enhancement efficiencies in CP4 based on the scope for frontier shift, that is the scope for ongoing cost reductions driven by technological or process changes.

36. We have drawn on input from external advisors, including the independent rail reporters. We are currently continuing our assessment, which will feed into our draft and final conclusions. Where we have excluded schemes it is

generally because we consider that they are not required to deliver the HLOS, although we are doing further work in this area and more schemes may be excluded as our assessment continues.

Our range for the enhancement portfolio in the SBP

37. Based on our initial assessment we have developed a range of the costs of the enhancement portfolio in the SBP, set out in table C.1. These ranges are built up from ranges developed at a scheme or a package level. For the purposes of this assessment, the scope for frontier shift efficiency has only been applied to our low end of the range.

Table C.1: Range of enhancement portfolio costs

£million (2006-07 prices)	**SBP**	**High**	**Low**
DfT			
Baseline	1,221	1,290	993
Specified projects including development fund	4,216	4,246	3,665
Capacity schemes	1,324	1,324	1,191
Performance schemes	768	150	0
Risk adjustment	287	400	0
Optional schemes	537	0	0
DfT total (including frontier shift)	**8,353**	**7,410**	**5,786**
Transport Scotland			
Tier 2: Airdrie to Bathgate	145	166	141
Tier 2: Glasgow Airport Rail Link	124	121	115
Tier 2: Borders (Network Rail only)	3	3	3
Tier 1: Paisley corridor renewal and small projects fund	66	65	63
Tier 3 development fund	13	13	13
Transport Scotland total (including frontier shift)	**348**	**352**	**319**

Note: Network Rail's SBP included an additional £30m of assumed expenditure on the seven day railway in Scotland.

38. The following section sets out the key issues that emerged from our assessment of the schemes in the SBP.

Baseline (DfT)

39. The DfT baseline includes projects that are assumed to be committed as part of the HLOS. We would generally expect to have a good understanding of scheme costs. While this is the case for **Kings Cross** redevelopment, this is less so for the remaining elements of the **West Coast** strategy, Stafford / Colwich remodelling, Bletchley - Milton Keynes and the power supply upgrade, where most of the enhancements are at early stages of development in GRIP, with considerable risks remaining to be costed. The **access for all** programme is a fund with a well-established set of arrangements, with outputs defined on a rolling 3-year basis – with flexibility within the arrangements to allow Network Rail to vary outputs subject to certain criteria.

DfT specified projects

40. DfT specified projects are other projects, besides the baseline schemes, that DfT explicitly included in its HLOS. This includes the Thameslink programme, Birmingham New Street station, Reading station, NSIP, the Intercity Express Programme (IEP), NRDF and the SFN.

41. The **Thameslink programme** is the largest scheme in the enhancement programme at £2.6bn in CP4. DfT and Network Rail are developing arrangements for delivering the Programme by reference to a Protocol. DfT have already closely scrutinised cost estimates and so we have only undertaken a high level review. We have some concerns over the way in which risk is priced in Programme costs, which we are continuing to discuss with DfT and Network Rail.

42. For **Birmingham New Street** station Network Rail appears to have reasonably well-developed plan and we are satisfied with progress on the cost estimates. In contrast on **Reading station** Network Rail's plans are less coherent and we have had difficulty in identifying clearly the precise details and scope of this scheme and so cost estimates are uncertain. Network Rail need to provide better, more detailed information on this scheme in its SBP Update (see below).

43. Network Rail has allowed a notional sum for the infrastructure elements of the **Intercity Express Programme**. Work is still in progress to better define the outputs. Similarly on the **Strategic Freight Network** Network Rail is yet to set

specific outputs. We have therefore been unable to assess the costs of both schemes at this stage.

44. The **network rail discretionary fund** is a fund that, subject to certain criteria, Network Rail can drawn on to make improvements to the network. As such we would not expect outputs to be defined at this stage.

45. The **national stations improvement programme** is a fund for the industry to make visible improvements to 150 stations in England and Wales.

Schemes contributing to DfT HLOS metrics

46. We consider that the schemes proposed by Network Rail are capable of delivering the **HLOS capacity metric**. We have yet to assess the costs of these schemes in detail, as well as identifying whether all of the schemes are required to deliver the HLOS metric. At this stage we have simply applied a variance to the "base" cost estimate for these schemes (as well as the modelled "risk adjustment term") to obtain our cost range.

47. Network Rail have included a number of schemes as well as a £400m fund which it states are required to deliver the **HLOS performance metric**. We do not consider that Network Rail has made the case for including these projects and funding and so have included a much reduced funding in our initial assessment, with no additional expenditure at the bottom end of our range.

Other schemes

48. Network Rail has included proposed expenditure on a range of **other schemes**, including work on the implementation of the seven-day railway concept. We do not consider that these schemes are necessary to deliver the HLOS so we have excluded them from our assessment of HLOS affordability, although they may be worthwhile in their own right. In addition to this, Network Rail has not justified these schemes. In particular we have asked it to provide a full justification for its proposed expenditure to implement the seven-day railway concept as part of its SBP update in April, including evidence of the likely benefits.

49. DfT has indicated that it wishes to explicitly allow for the development of CP5 schemes in CP4. Network Rail has included a **development fund** in the SBP. We consider the size of this fund is subject to considerable uncertainty due to the uncertainty over the size of the CP5 programme.

Scotland

50. The Transport Scotland Tier 2 HLOS specifies three schemes: Airdrie to Bathgate, Glasgow Airport Rail Link and Borders Railway. **Airdrie to Bathgate** will provide a new double track railway along the line of the original railway. Our range reflects our initial assessment of project costs, assuming a P80 risk allowance. We subsequently sent a letter to Transport Scotland on 22 January 2008 setting out our view of a fixed price for the project. For CP4 this would represent expenditure of £150m.

51. Transport Scotland have told us that **Borders Railway** would be delivered by a third party with Network Rail's role limited to asset protection. Network Rail has therefore only included a limited sum in the SBP.

52. **Glasgow Airport Rail Link** (GARL) will provide a new direct rail link from Glasgow Central to a new station at Glasgow Airport. While Network Rail has made progress in improving the quality of the cost estimates there are issues around the application of risk and optimism bias.

53. We have also included allowances for Paisley Corridor signalling renewal (which will be delivered in parallel to GARL), the small projects fund and the development of Tier 3 schemes.

54. More details on those schemes requiring funding in 2009-10 are given in the early start section.

Annex D: Reasons for our decision on implementation of a reservation charge

Introduction

1. Chapter 6 set out our decision not to introduce a reservation charge for CP4 but to examine the issue again during CP4. It also provides a brief background to our examination of whether or not to propose the introduction of the charge.

2. This annex provides more detail on our assessment and we are also publishing the NERA cost/benefit study[92] carried out to support our assessment of the charge.

The issue

3. Train operators hold access rights in their track access contracts with Network Rail. These imply paths on the rail network for the operation of their trains. In relation to existing network capability, track access charges are generally[93] paid where the trains actually run. [94] Therefore to hold an access right without running a train is generally costless to the train operator.

4. This provides little incentive for train operators to act efficiently in the holding of access rights. While, particularly in providing rail freight services, we recognise that there a number of reasons why additional rights implying paths are not used for train operations, there is no pricing mechanism to influence operators when considering how many access rights are actually needed[95].

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[92] *The impact of a reservation charge, final report to the Office of Rail Regulation*, NERA, August 2007. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/cnslt-NERA-report_pv.pdf.

[93] The fixed track access charge paid by franchised passenger train operators is an exception, this is allocated between operators at a periodic review based on the vehicle mileage that is timetabled to be run.

[94] The franchised passenger operators' fixed track access charge might change in specific circumstances during a control period, particularly to reflect franchise re-mapping and such changes would be informed by the number of timetabled services.

[95] See for example part of EWS's response to our June 2006 structure of track access and station long-term charges document, which may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08tas-EWSsupPMcMlet_170706.pdf.

5. This matters because where access rights are inefficiently held and not used, i.e. they exceed the amount of flexibility needed by the train operator, they can prevent others from utilising paths and running trains or could bring forward the need to enhance the capability of the network to allow both the new service to operate while the other operators' rights are retained.

6. Administrative mechanisms are available that can either facilitate the efficient holding of access rights by train operators or limit the ability of operators to hold rights but not use them. These provisions are mainly in Part J of the Network Code: [96]

- the rights review meetings (Condition J9 of the Network Code) which enable Network Rail and a train operator to review the need for rights currently held in a track access contract; and
- the "use it or lose it" (UIOLI) mechanisms (Conditions J4 and J5 of the Network Code) which sets a time limit on non use of rights without them having to be relinquished.

7. However, these approaches both have limitations. With the UIOLI mechanisms these include how to define the appropriate period before which non-use triggers the loss of access rights and how to deal with occasional use of a right within that period. In the case of the rights review meetings, the train operator will have better information than Network Rail about the overall number of access rights needed to provide the service.

Our assessment of the introduction of a reservation charge

General consultation

8. In our June 2006 structure of charges consultation document, while indicating that a scarcity charge would not be introduced in CP4, we confirmed that we would examine the case for a reservation charge. [97] We were aware of cases dating back to our work to develop the freight model contract, where operators had faced problems seeking access to the network, where their aspirations

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[96] The Network Code may be accessed on Network Rail's website at http://www.NetworkRail.co.uk/companyinformation/NetworkCode.

[97] *Periodic review 2008: Structure of track access and station long-term charges*, Office of Rail Regulation, June 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/291.pdf.

had appeared to clash with rights held (and the paths implied) by other operators but where trains rarely if ever operated.

9. In June 2006 we set out for consultation a number of general issues that would apply to the introduction of a reservation charge.

10. While we saw merit in a reservation charge at that stage we always made clear that before the introduction of a reservation charge would be considered, a thorough examination and further detailed consultation would need to take place.

11. Responses to this consultation were mixed. While some respondents saw an advantage in encouraging operators to give up rights where they did not need to hold them, others considered that it would imply significant costs, particularly to freight operators and there was also concern as to whether a blanket charge across the whole network was an efficient way of resolving the problem.

12. We also discussed the proposal with stakeholders at our structure of charges workshop on 14 July 2006 where a number of concerns with the introduction of a reservation charge were highlighted.

Detailed consultation

13. In December 2006 we consulted in more detail on a reservation charge[98]. This consultation focused on the mechanics involved with introducing the charge following two possible models:

- model 1: a general reservation charge, payable for all rights reserved but not used, for all parts of the network; or
- model 2: a reservation charge that only applies to 'congested infrastructure' as defined by Network Rail in its network statement.[99]

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98 *Periodic review 2008, reservation charge, consultation document*, Office of Rail Regulation, December 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/311.pdf.

99 Network Rail's network statement may be accessed on Network Rail's website at http://www.networkrail.co.uk/aspx/3645.aspx.

14. Both these models involve a charge for all paths but with a rebate payable where the paths are used (consistent with the Access and Management Regulations 2005).[100]

15. In addition, both models were assumed to be revenue neutral, i.e. the money is returned to the operators based on total trains run by each train operator.

16. Some responses to our consultation considered that it was inappropriate to introduce a reservation charge of any type, particularly until the industry had exhausted administrative alternative solutions. Of those who in principle supported the introduction of a reservation charge, simplicity in the arrangements of the charge was a particularly important priority. There was also some concern expressed about the evidence behind setting a particular level of charge.

17. In our December 2006 consultation we stated that the 'introduction of a reservation charge only makes sense if there are tangible benefits to be gained from it'. We highlighted three key issues:

- whether there is evidence of operators holding a significant number of unused rights;
- whether those rights have an opportunity cost; and
- if so, whether the problem can be addressed effectively through other mechanisms.[101]

18. We considered that, overall, the responses to this consultation supported this thorough approach and were sufficiently positive for it to be worthwhile for us to further understand the costs and benefits involved in the introduction of a reservation charge.

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[100] The Railway Infrastructure (Access and Management) Regulations 2005. This may be accessed at http://www.opsi.gov.uk/si/si2005/20053049.htm.

[101] Paragraph 2.15, *Periodic review 2008, reservation charge, consultation document*, Office of Rail Regulation, December 2006. This may be accessed on our website at http://www.rail-reg.gov.uk/upload/pdf/311.pdf.

NERA cost/benefit study

19. In June 2007, we commissioned NERA to undertake a study to assess the costs and benefits of introducing a reservation charge, using the models set out in our December 2006 consultation.

20. NERA carried out a series of interviews with Network Rail and freight operators to inform its study and developed a model to calculate the costs and benefits. The costs identified included:

- costs associated with adjustment of Network Rail's billing systems (both capital and ongoing operating costs);
- costs to freight operators mainly relating to verifying payments and rebates; and
- increased costs to ORR in overseeing the charge and any disputes over time.

21. NERA's report provides a useful estimate of the costs and benefits involved. However, there remains significant uncertainty around the likely benefits from the introduction of a reservation charge.

22. NERA identified two main ways in which rights may be freed up in response to a reservation charge:

- the financial incentive encourages each train operator to review its current rights; and
- increase in cost causes some services to be priced off the network (this is an unintentional side effect of the introduction of the charge).

23. NERA acknowledged that it focused mainly on the second of these in its modelling. In respect of the first driver of freeing rights, NERA state that, 'while train operators may surrender some paths voluntarily as a result of the reservation charge, these are not paths that are likely to be useful to other train operators'. Despite the introduction of a reservation charge, operators may decide for strategic reasons to retain the rights that would be most useful to other operators. Where unused paths are freed up but not taken up by other operators, this will not generate any net benefits.

24. The difficult question to answer even after the NERA work is how many rights are held simply because it has been costless to do so. If a significant number of rights fall into this category, then the question then is how many of these are on parts of the network where, if given up, they will then be taken up by other train operators.

25. This includes an assessment of the pattern of potential demand that might only be attracted to rail by the availability of the particular rights. While NERA's estimated benefits in their model appear small, it is not clear how much higher the figure might be had there been more detailed quantitative evidence available to them to more accurately reflect any cases where potentially useful rights were held simply through inertia and might be released as a result of a reservation charge.

26. NERA's total estimated costs per annum of introducing a reservation charge under base assumptions was approximately £125k, total benefits approximately £30k and therefore a net cost of approximately £95k.

27. NERA used a number of scenarios with different assumptions to test the sensitivity of the results. The sensitivities used included:

- changes in the level of the reservation charge;
- changes in allowed headroom;[102]
- changes in rail costs; and
- changes in train cost elasticities.[103]

28. Only two scenarios suggested benefits might exceed costs, if:

- no headroom allowance is applied; or
- a quadrupling of the assumed take-up of freed paths.

29. The headroom allowance was explicitly provided for in our guidance to NERA in the light of consultation responses to our December 2006 document.

[102] Headroom is the number of rights/paths in excess of those used. The headroom allowance means that specified headroom is not subject to the reservation charge.

[103] Train cost elasticity is the assumed impact of a percentage change in costs on tonne kilometres carried.

Freight operators provided detailed evidence of why they need to hold rights and, through these, paths in the timetable that they may not use frequently in order to provide flexibility given uncertain or varying levels of demand. It was clear that to treat all unused paths the same would be inappropriate as the levels of headroom were more significant for some commodities carried. We do not consider that it is feasible to have no headroom allowance when introducing a reservation charge.

30. The assumption about the take up of given up rights and associated paths by other operators could be higher or lower than the NERA base assumptions, but based on our understanding of the issues at this point it does not seem likely that the take up would be sufficiently higher to provide us with confidence that the benefits of introducing a reservation charge now would outweigh the costs.

31. We also asked NERA to look at applying the charge only on congested infrastructure but its analysis did not suggest that the benefit/cost ratio would be significantly improved, particularly because rights/paths held on congested infrastructure are likely to be valued very highly as, if lost, it would be difficult to obtain these or similar rights/paths.[104]

Our decision

32. Having reviewed the responses to our industry consultation on the two detailed models of the charge in our December 2006 document, and in the light of NERA’s cost/benefit study, we have decided that we will not be taking forward the introduction of a reservation charge for CP4. We will rely on the existing administrative solutions, made more effective where possible. We will keep the reservation charge under review during CP4 (as well as examining further the case for a scarcity charge).

33. It is worth noting, bearing in mind the preference expressed by many consultees for an administrative solution rather than a charge, that we have previously consulted the industry on whether the “Use Quota” and “Use Period” criteria (which currently equate to one train movement in 90 days) that underpin the Part J UIOLI mechanisms should be tightened. This exercise was carried out in June 2006, and questioned whether the current

[104] The congested infrastructure used was that defined as congested infrastructure in Network Rail’s network statement.

arrangements were working to an acceptable degree. Unfortunately, this exercise failed to elicit any specific evidence that this was not the case, and therefore our position at present is that no change to the criteria can be justified.

34. In the light of the views expressed by the industry, in response to our comments on the reservation charge, we intend to provide a further opportunity for operators to provide evidence in support of a change in the “Use Quota” and “Use period” criteria in March 2008.

35. There are also ongoing discussions with Network Rail as to how to make the rights review meetings as effective as possible.

Annex E: PTE or TfL sponsored increments and decrements in train services

Introduction

1. Chapter 6 included a section on the work relating to identifying the cost impacts on Network Rail of PTE or TfL sponsored increments and decrements. This annex provides more detail on the work and our recommended approach and includes a number of issues related to this approach where we would welcome views.

Background

2. As part of the work to review the appropriate structure of access charges for CP4, we have been examining how the access charges might facilitate the Government's intention, set out in its 'Future of Rail' White Paper 2004, that PTEs could make increments and decrements to the level of franchised passenger train services they sponsor, as long as the financial impact of this change is felt by them.[105]

3. Currently it is the intention that this would apply to English passenger transport executives (PTEs) and Transport for London.[106] It requires the identification of all the extra costs or cost savings to different industry parties from the change in PTE/TfL sponsored services. In the 'Future of Rail' White Paper the Government set out its expectation that we would establish a method of allocating infrastructure costs in support of this policy.

4. This is therefore relevant to Network Rail's access charges because where its infrastructure costs change as a result of a PTE/TfL increment or decrement, a change to its access charges provides a way to transfer these cost changes firstly to the train operator and through it to the PTE concerned (or TfL).

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[105] *The Future of Rail*, Department for Transport, July 2004, CM 6233 (http://www.dft.gov.uk/about/strategy/whitepapers/rail/thefutureofrailwhitepapercm6233).

[106] It might potentially be applicable to other local authorities in England & Wales or Scotland at some point in the future.

5. Our investment framework already provides a guide to how such costs would be identified and to the process where these result from increments in train services, particularly where these require investment to increase the capability, capacity or functionality of the network[107].

6. However, a policy framework is not yet established to identify cost savings from a decrement in train services. This identification of costs savings to Network Rail as a result of PTE/TfL sponsored decrements is therefore the key issue in this annex. In some cases, a decrement in service might imply a network modification under the provisions of the Railways Act 2005. This is outside the scope of this annex. Examples of decrements are discussed later in this annex but include:

   - reduction in service enabling a reduction in the capability of the particular piece of railway network;
   - change of rolling stock used for operating service to much lighter rolling stock; and
   - reduction in the number of station stops on a service.

7. The remainder of this annex sets out our proposed methodology which builds on our advice to Ministers, individual meetings with stakeholders and the industry workshop held on 20 July 2007. We welcome views on all aspects of methodology.

8. We then intend to announce our decision on our approach to allocating infrastructure costs in our draft determinations.

Proposed methodology

9. The key aspects of our proposed methodology are:

   - where Network Rail's costs change significantly as a result of PTE/TfL sponsored increments/decrements there should be some way of transferring costs between the two;

[107] *Policy framework for investment conclusions*, Office of Rail Regulation, October 2005, London. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/255.pdf.

- Network Rail should provide some guidance before the start of CP4 as to the type of decrements in train services that might be expected to involve significant cost savings (or, as importantly, those that would not be expected to lead to significant Network Rail cost savings);

- case specific negotiations will be a core part of identifying the particular cost impact on Network Rail of increments/decrements therefore in relation to decrements a new process is required to facilitate this, e.g. to cover disputes between the PTE and Network Rail;

- where savings are identified these should result in a reduction of access charges reflected through a negative track access charge to the relevant train operator in Part 5 of Schedule 7 of its track access contract; [108]

- PTEs/TfL should ensure that they have arrangements with train operators and, where necessary, with DfT so that the financial impact of the transaction between Network Rail and the train operator impacts on them;

- We do not consider that there is a need for an ex ante de-minimis threshold as PTEs/TfL will only pursue negotiations with Network Rail, potentially costly in resource terms, where it believes that the saving will be material given the information provided by Network Rail at the start of the control period and experience of subsequent cases; and

- a new process has been proposed to cover issues such as level of detail of a proposed decrement that needs to be supplied to Network Rail and to cater for any dispute over the impact on Network Rail's savings.

10. The current CP3 track access charges already partially respond to changes in the level of train service:

- variable access charges change automatically with changes in volume of train service; [109]

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[108] The template Schedule 7 of franchised passenger operators' track access contracts may be accessed at http://www.rail-reg.gov.uk/upload/doc/sched7_apr04.doc.

[109] Variable usage charge, traction electricity charge and the capacity charge. For a more detailed explanation of these charges see annex C of *Periodic Review 2008: Structure of track access and station long term charges*, Office of Rail Regulation, June 2006. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/291.pdf.

- our investment framework helps identify the Network Rail cost impact where increments in service also need an increase in the capacity, capability and/or functionality of the network e.g. specifying the default risk allocation that a promoter can expect and the appropriate rate of return for an investment on the network;[110] and

- other incremental costs caused by operators, e.g. extended signal box opening hours, can be funded through additional permitted charges in Part 5 of Schedule 7.[111]

11. However, where a decrement leads to a change in Network Rail's costs and this is not reflected through the variable charges, e.g. the impact is triggered through a step change in services, then the current charging regime does not explicitly provide for a change in the fixed track access charge during the control period (other than for general inflation). This is therefore the core issue for our proposed new approach.

12. We stated in our advice to Ministers that we would consider the following issues:

    - the approach to identify the impact on Network Rail's costs resulting from the increment/decrement in service;

    - possible approaches to enable changes in the fixed charge payable in response to increments/decrements which can then be passed on to PTEs/TfL; and

    - whether there should be a minimum threshold below which the impact of a change on Network Rail's costs in excess of those recovered through the variable charge are not examined.

Types of increments/decrements

13. PTE/TfL sponsored increments and decrements can take various forms but increments might include:

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[110] *Policy framework for investment conclusions*, Office of Rail Regulation, October 2005. This may be accessed at http://www.rail-reg.gov.uk/upload/pdf/255.pdf.

[111] Schedule 7 of franchised passenger track access contracts, a template from the access charges review 2003 may be accessed at http://www.rail-reg.gov.uk/upload/doc/sched7_apr04.doc.

- a train service having additional station stops; or
- a change in train services that requires an increase in the capability of a route.

14. Examples of decrements include:

    - change from heavy to light rail (or move to substantially lighter rolling stock) where the savings in wear and tear costs might exceed differences in the variable usage charge for the lighter vehicle;
    - cessation of branch line services;
    - reduction in use of a station;
    - complete cessation of use of a station;
    - major reduction in train services on route; and
    - change from electric to diesel rolling stock (where potentially the electrification capability of the route can be removed or maintained at a lower level of capability).

Workshop

15. On 20 July 2007 we held a workshop which PTEs, TfL, government, Network Rail and ATOC attended.[112]

16. The workshop included a useful discussion of:

    - the priorities for increments and decrements;
    - real or possible examples of the types of increment and decrement;
    - different types of decrement and indications of where Network Rail would be expected to make significant savings and, as importantly, where this is not likely to be the case; and
    - the mechanics of how changes might be made to the access charges set out in Schedule 7 of franchised passenger train operators' track access contracts.

[112] The presentations given by Network Rail and ourselves at the workshop may be accessed at http://www.rail-reg.gov.uk/upload/pdf/pr08-wkshp_PTE_inc_dec.pdf.

17. Throughout this annex we discuss the reflection of Network Rail's cost savings in track access contracts. We are assuming that the PTE(s) (or TfL) involved with supporting a particular train operator's services already has a mechanism in place to enable the full financial impact of the change to transfer back to the PTE/TfL. However, the change may also trigger the change process in franchise contracts (depending on the nature of the change and the specific drafting in the franchise contract). In such cases the relevant franchising authority would receive any savings transferred from Network Rail to the train operator. In such cases, PTEs/TfL will need to have arrangements with the franchising authority to recover the cost saving resulting from the decrement.

Particular issues for consideration

Ex ante indications of scope for Network Rail cost savings

18. For PR08, Network Rail has developed its infrastructure cost model (ICM) to support its strategic planning and to underpin its calculation of its proposed access charges. However, this does not mean that it is possible, certainly for CP4, for it to identify up front the exact savings that would result from specific decrements in train service, since the ICM does not model all the detailed costs that may be associated with increments or decrements (nonetheless the ICM provides an indication of possible costs).

19. We expect that case by case negotiation will in all cases be needed to identify the specific cost saving to Network Rail following a PTE/TfL sponsored decrement. However, it is important that Network Rail provide as much information as possible on what types of decrements or what properties decrements might have that would suggest the possibility of material savings or indeed where material savings are unlikely to be produced. Both of these are important in minimising transaction costs to PTEs/TfL and Network Rail.

20. Network Rail has built on the work it carried out to inform the 20 July 2007 workshop and this information is provided in Tables E.1 and E.2. Table E.1 examines how different cost types might be avoided as a result of the decrement.

Table E.1: Treatment of decrements by cost category

Cost category	**Issues/ treatment (likelihood of being 'avoidable')**
Direct costs	Avoidable, subject to specific local validation. An initial estimate of these would be provided via ICM analysis
Route specific enhancements	Similar in principle to direct costs. In practice it seems unlikely that decrements would be specified for parts of the network with specific enhancements.
Allocated overheads	In principle overheads can be avoided. In practice it seems unlikely that specified decrements would impact on overheads (for example HQ costs would be unchanged if a station was closed). This will depend on the nature of the local cost relationships, so case-by-case assessment is necessary.
Regulatory Asset Base	Would be addressed by reference to actual renewals planned and potentially avoided during the remainder of the Control Period in which the decrement is proposed. Detailed case-by-case assessment of the work-banks is necessary.

Source: Network Rail

21. In summary, costs more closely related to the decrement are more likely to be avoidable and therefore produce savings.

22. Table E.2 identifies specific example decrements along with some example increments demonstrating the symmetry of treatment where appropriate.

Table E.2: Case-study analysis

Example	Cost impact	Timing
Decrements		
1. Change from heavy to light-rail	Likely to be savings around opex and maintenance because of lower line capability and therefore less intense maintenance regimes. Potentially some savings in relation to signalling costs if it becomes dedicated light rail. This might include maintenance, time (if fewer signallers are required). Track capex savings likely to arise at timing of next renewal. Unlikely to be a case to replace rail immediately.	Point of renewals will be where capital savings can be made due to use of lighter rail. This may be some time in the future given the asset life. It may be that with lighter loads the asset life will be extended.
2. Cessation of branch-line services	Avoidance of opex and maintenance costs associated with the branch line. Potentially some signalling costs if there is a reduction in the number of signallers required at the local control. If the branch line is fairly minor with a small number of services then this will not happen. Avoidance of future renewals.	There are a number of statutory requirements to cease services. This may take 1-2 years. Thereafter, opex and maintenance will occur immediately. Renewals – which may be larger in magnitude – depends on when this is scheduled, it could be some way into the future.
3a. Reduction in use of station	Potentially some opex and maintenance (e.g. reduction in cleaning / inspection schedules). However, for reasonably wide ranges of usage station costs are not driven by usage levels. So the actual impact will depend on the existing level of usage and the scale of the likely reduction.	Will take effect in the short term *if* they are triggered.
3b. Complete cessation of use of station	Direct costs such as opex and maintenance where these activities are likely to cease once station usage has ceased. Future avoidance of capital works Offset by any costs associated with ceasing use – for example decommissioning/ removal of assets	A number of statutory obligations to fulfil. Will require demonstration that there is no likelihood of future railway usage Timing of avoided renewal depends on the age and condition of the asset – potentially a short or very long time given station asset lives.

Increments		
4a Running additional services on a branch line	Under investment framework sponsor would pay for any additional signalling costs (e.g. if signallers are required to work outside existing hours and/or if additional signallers were required) though this is unlikely for minor changes. Any additional capex required to admit the new rolling stock to the line (e.g. gauge enhancement etc). No contribution to overheads/common costs of the network.	Typically short-term and a matter of months. Major service changes may require longer.
4b. New branch line	Capex associated with the new line – earthworks, signalling, track, sleepers, etc. Bespoke project analysis required. Significantly lower costs likely if it is a case of re-introducing a line to service as opposed to completely new construction.	Dependent on the scale of the proect – but likely to be 1 – 3 years rather than a number of months.

Source: Network Rail

23. Table E.2 identifies just some examples of how the type of decrement impacts on the likely savings level but there are some generally applicable assumptions that can be made as to whether a decrement is or is not likely to lead to a material Network Rail saving. The saving is more likely to be material where the change in train service allows Network Rail to defer planned renewals work from the current control period (the funding for which has been determined at the most recent periodic review) or where it allows it to reduce costs from facilities primarily related to the route affected by the decrement. Savings are not likely to be material where the capability of the network cannot be changed as a result of the decrement or on a route where no renewals activity is planned for the current control period (the period over which Network Rail has received funding in the most recent access charges review).

Case by case negotiation

24. Network Rail has engaged fully in the development of the approach set out in this annex. It has provided case studies but has always made clear the inevitable need for case by case negotiation to determine the precise savings made as a result of a decrement in train services.

25. The above indicative information should help PTEs know where a decrement, if made, is likely to lead to a material saving to Network Rail but the precise savings will depend on local circumstances and other case specific factors.

26. This works well when the PTE/TfL and Network Rail work together. However, our methodology needs to be sufficiently robust to work if disagreements arise over the savings level and the degree of justification for that level or where the PTE/TfL and Network Rail take a different view on the priority of examining the savings from a particular decrement.

27. We propose to amend track access contracts to:

- provide for Network Rail engagement in discussions with PTEs/TfL;
- set out the type of evidence that both PTEs/TfL and Network Rail need to provide during the discussions;
- include a time limit for these discussions;
- set out the provisions for appeal where agreement is not reached as to the level of saving achieved**;** and
- set out the information that should be published from the case to inform future cases.

28. We envisage that the rights being granted to PTEs/TfL would be directly enforceable by them via the Contract Rights of Third Parties Act 1999.

29. We welcome views on whether these provisions should be added to track access contracts. This drafting will be developed and consulted on as part of our wider PR08 proposed drafting changes in the draft determinations but we welcome views on the general principles that should drive this, in particular:

- what level of clarity should PTEs/TfL identify in terms of the decrement before the time period in which Network Rail has to review the proposal?
- how long should there be before agreement is deemed not to be reached?
- if agreement is not reached who should hear the dispute?
- what information from a case (e.g. details of the change, and details of the cost savings made) should normally go into the public domain?

Ex ante materiality threshold

30. Given the approach set out above, we do not propose to establish an ex ante materiality threshold below which PTEs/TfL would not be able to seek savings from Network Rail. Instead we expect PTEs/TfL to be influenced by the general principles illustrated here and further developed as part of PR08. This has the benefit of encouraging Network Rail to update the general information available to PTEs/TfL during the control period.

Mechanisms for transferring Network Rail cost savings

31. Our proposal is that where a material saving results from a decrement (over and above that reflected in changes in the variable charges) then this should be reflected by an additional (negative) charge in Part 5 of Schedule 7. This amount would be effectively a reduction in the fixed track access charge payable by the train operator but reflected in Part 5 (like additional payments for enhancements) to keep the drafting as simple as possible.

32. There are alternative options e.g. through the provisions of the Network Code (either through Part G or Part J) or in a separate arrangement not using any of the track access arrangements, however these lack the transparency available through using Schedule 7.

33. As it is in effect a reduction in the fixed charge, we would generally expect this reduction to be limited to no more than the proportion (based on train miles) of the fixed charge that relates to the PTE/TfL sponsored services. Exceptions may be approved where specific circumstances support this, e.g. the magnitude of the savings is significantly in excess of this level.

Next steps

34. We will review any responses made to us on whether the above approach is reasonable or could be improved upon and shall set out decision in this area in our draft determinations.