

**Periodic review 2008:
Network Rail's outputs
A consultation document**

August 2007



OFFICE OF RAIL REGULATION



**Periodic review 2008:
Network Rail's outputs
A consultation document**

August 2007

Contents

Foreword	1
Executive summary	3
1. Introduction	7
2. Framework	9
Regulatory framework	9
Scope of output specifications	10
The role of Network Rail's 2009 business plan.....	11
Monitoring.....	12
Form of the final determination of PR08	12
3. Proposed output specification	15
Safety and health.....	15
Train performance	17
Network capacity	19
Network capability	21
Network availability.....	23
Asset serviceability	24
Stations and depots.....	32
Customer satisfaction	35
Other areas.....	36
4. Changes during the control period	39
Top level regulatory output specifications.....	39
Customer reasonable requirements defined by Network Rail.....	39
5. Impacts	43
6. Acronyms / Glossary	45

Foreword

1. This document describes our proposed approach, as part of the 2008 Periodic Review, to determining the regulated outputs that Network Rail should be required to deliver over the five years from April 2009 to March 2014.
2. Outputs is the term we use for the results of Network Rail's activities on the operation, maintenance, renewal and enhancement of the rail network, including stations and depots. Some outputs have effectively been specified, directly or indirectly, within the high level output specifications issued by government in England and Wales and in Scotland in July 2007. We propose to add further measures so that the regulated outputs encompass:
 - (a) the full range of key priorities for Network Rail's end customers - passengers and freight customers; and
 - (b) measures related to asset management to ensure that this supports the longer term sustainability of the network.
3. Although Network Rail's own customers are largely passenger and freight train operators, its behaviour affects passengers and freight customers directly. It is responsible for the safe maintenance and operation of the rail network, and the quality of the track, and is landlord for the vast majority of stations. It makes decisions about how and when to interrupt services to carry out engineering work and it is responsible for a significant proportion of delays to trains. Its costs and efficiency indirectly affect most people - as passengers, freight customers, or taxpayers.
4. This has influenced our approach. For example, we intend to focus attention on reducing the disruption caused by engineering work while Network Rail still delivers the necessary level of maintenance and renewal. We are considering how best to assess the longer term sustainability of the network so that problems, and costs, are not stored up for the future. We are also increasing the level of disaggregation of outputs to improve Network Rail's accountability at local level.
5. Network Rail's behaviour is influenced by the incentives it faces, and by the obligations it has to meet. The regulated outputs - and the corresponding

targets for them - must complement incentives in contracts, licences and elsewhere and be enforceable if necessary, so that the overall framework for the period to 2014 leads Network Rail to play its full part in delivering a railway that meets the needs of passengers, freight customers and taxpayers.

Executive summary

1. This document sets out our views on the form of the outputs Network Rail will have to deliver in the control period from 1 April 2009 to 31 March 2014 and how those outputs should be structured. We invite you to comment by 31 October 2007.
2. We are considering a structure which consists of:
 - top level regulated outputs set by us (which will be enforceable and will ensure that Network Rail makes its full contribution to delivering the two high level output specifications as well as covering other key areas not included in the HLOSs);
 - disaggregated outputs and targets established by Network Rail and detailed in its 2009 business plan which will be regarded as customer reasonable requirements, and so will be potentially enforceable under the network licence;
 - a suite of monitoring indicators and diagnostic tools to act as leading indicators and to understand trends in higher level outputs; and is supported by the ongoing requirement for Network Rail to comply with its network licence, and in particular its stewardship of the network under Condition 7. This will be consistent with our plans to modify Network Rail's network licence to take a purposive format, following our review alongside the periodic review.
3. We are proposing a mechanism to deal with changes to customer reasonable requirements in Network Rail's business plan during the course of the next control period.
4. Throughout this structure, we are proposing a greater level of disaggregation than in previous control periods, especially between England & Wales and Scotland. This will help Network Rail's customers and funders see how it will deliver at a local level and will help us and Network Rail measure its performance.

5. We propose that Network Rail should have output obligations in the areas of:
- safety - Network Rail would set out in its 2009 business plan how the industry plans to achieve the target in the HLOS;
 - reliability of train performance - we would set targets based on the HLOSs and including the specific HLOS targets, but also including open-access passenger train operators, and Network Rail's delay minute targets for the network and for freight. We would also require Network Rail to set out its targets in its 2009 business plan at a more disaggregated level. Such targets would be customer reasonable requirements;
 - capacity - we would require Network Rail to set out in its 2009 business plan how it proposed to deliver the capacity required by the two HLOSs and to include key milestones;
 - network capability - we propose that Network Rail should maintain the capability of the network as at 1 April 2009, subject to industry change processes and capacity enhancements;
 - network availability - together with Network Rail we have commissioned consultants to identify a measure of network availability to show the extent to which engineering work disrupts services. We propose to include a target and make this a top level regulated output;
 - asset serviceability and sustainability - we do not believe there is a simple measure of the sustainability of Network Rail's assets over the longer-term. We therefore propose to measure this against a number of factors, including the quality of Network Rail's policies on maintaining and renewing particular assets and Network Rail's own targets in its 2009 business plan for areas we will specify;
 - stations - we propose that, as a baseline, Network Rail maintains the average condition of stations (to be determined in the near future) and reflecting HLOS requirements. We are also reviewing how Network Rail might spend the extra £150 million for station improvements included in the England and Wales HLOS;
 - depots - we propose that Network Rail should continue to maintain the condition of its light maintenance depots so that their long-term

sustainability is secured. We will review what Network Rail says in its 2009 business plan for control period 4 (CP4) about its depot services and costs in CP4 and the new M19 target and trajectory.

- customer satisfaction - we are consulting on the possibility of an output to reflect the satisfaction of train operators if Network Rail does not include such a performance measure in its management incentive plan.
6. We are inviting you to comment on our approach and on the effects any of our proposals may have on different parts of the industry.

1. Introduction

- 1.1 The Periodic Review 2008 (PR08) will determine Network Rail's funding for the fourth price control period (CP4) which runs from 1 April 2009 to 31 March 2014. In concluding the review we will also set out clearly what Network Rail should deliver in return for this income, taking account of the specifications of governments in England & Wales and Scotland and having regard to our duties under the Railways Act 1993.
- 1.2 This document sets out our current views on the structure and form of the outputs Network Rail will have to deliver. It does not deal with the actual level of targets. We will consider these after we have reviewed Network Rail's strategic business plan, which it must send to us by 31 October 2007.
- 1.3 The remainder of this document is in two parts. The first explains the general framework we intend to adopt. The second describes our proposals for individual dimensions of Network Rail output.
- 1.4 We invite you to comment on our proposals by **Wednesday 31 October 2007**. You should send your responses by e-mail (or if this is not possible, in hard-copy format) to:

Les Waters
Manager, Network Regulation
Office of Rail Regulation
One Kemble Street
London WC2B 4AN

E-mail: les.waters@orr.gsi.gov.uk
Phone: 020 7282 2106

- 1.5 In your response, you should make it clear if you want us to keep all or part of your response confidential. Otherwise we will make it available in our library and on our website and may quote from it. If you want us to keep your response confidential, please provide a statement summarising your response (leaving out the confidential information) that we can treat as a non-

confidential response. We may also publish your name in future documents or on our website, unless you tell us that you do not want us to do so.

- 1.6 You can find this document on our website at www.rail-reg.gov.uk.
- 1.7 In this document, the term ORR also applies to the Rail Regulator, prior to the Rail Regulator's abolition in July 2004.

2. Framework

Regulatory framework

2.1 Network Rail is regulated from both safety and economic perspectives. We regulate the company in four main ways - through assessing its safety management system and our safety inspection programme, through periodic reviews of its efficiency and expenditure requirements, through overseeing key contracts for access to its network, and through monitoring its compliance with the network and station licences.

2.2 For the purposes of this document the key licence condition is Condition 7 of the current network licence, and in particular its purpose. This is:

“to secure:

the operation and maintenance of the network;

the renewal and replacement of the network; and

the improvement, enhancement and development of the network,

in each case in accordance with best practice and in a timely, efficient and economical manner so as to satisfy the reasonable requirements of persons providing services relating to railways and funders in respect of:

(a) the quality and capability of the network; and

(b) the facilitation of railway service performance in respect of services for the carriage of passengers and goods by railway operating on the network.”

2.3 In parallel with PR08 we are reviewing Network Rail's network licence to make sure that it is fit for purpose for the next control period. This will enable us to ensure that the form of the network licence and the form of the regulated outputs for CP4 are well-aligned.

2.4 We aim to ensure that Network Rail has incentives to improve its performance continuously, and to make sound decisions as manager and operator of the infrastructure which benefit both Network Rail itself and the industry as a

whole. We have reviewed how different requirements in contracts, licences, and elsewhere interact and the incentives they provide for Network Rail and train operators. The proposed structure of regulated outputs for Network Rail is one part of this framework; it needs to complement the others and to facilitate Network Rail engaging with TOCs on the most efficient way to deliver overall industry outputs.

Scope of output specifications

2.5 In previous access charges reviews we have set relatively detailed outputs and targets which reflected the priorities and the funding available at the time. In doing so we were, to a degree, tying the company's hands. We need to take care that the outputs we specify for CP4 are consistent with focused and effective regulation, produce the right incentives, and can be monitored and enforced effectively.

High level output specifications

2.6 Following changes made by the Railways Act 2005 we need 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 high level output specifications (HLOSs) for the railway issued in July 2007 by the Secretary of State for Transport and by Scottish Ministers.

2.7 The England and Wales HLOS includes requirements for:

- improvements in safety¹;
- improvements in train service reliability;
- increases in capacity for passenger services including some specific schemes such as Thameslink, and for freight (by starting to develop a strategic freight network); and
- improvements to stations.

2.8 The Scottish HLOS includes requirements for:

- improvements to train service reliability;
- maintaining the capability of the infrastructure; and

¹ Safety is not a devolved issue, so the Secretary of State's safety requirements apply to Great Britain.

- extensions of the network through three major projects.

Other considerations

- 2.9 The HLOSs provide a foundation for the output specifications for CP4 but these need to go wider and deeper for the reasons set out below.
- 2.10 They 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 needs of other users – freight operators and non-franchised passenger operators and their customers.
- 2.11 They address the three key factors of safety, performance and capacity/capability, but it may be necessary or desirable to ensure that Network Rail also has defined commitments in respect of other dimensions of output.
- 2.12 We also believe that there should, in future, be a greater degree of disaggregation so that rail users can see what Network Rail is committed to deliver on different parts of the network. This would be in line with the expectations of many of its stakeholders. We recognise that Network Rail could then be constrained by expectations 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. We intend to provide some flexibility by defining a regulated change control process for such output commitments.

The role of Network Rail's 2009 business plan

- 2.13 Network Rail's 2009 business plan (BP09) should show in reasonable detail, and for different parts of the network, how the company plans to give effect to the PR08 conclusions and to deliver the top level regulatory outputs. We intend that, in areas which we will define, these should have the status of reasonable requirements for its customers and funders and should therefore be enforceable under the network licence. The plan may also include elements which are clearly identified as aspirational and which are not, therefore, enforceable in this way. We will review BP09 to make sure that it meets these expectations.
- 2.14 We will develop a regulated change control process so that, under suitable circumstances, these lower level regulated outputs can be amended in the

light of changes as time proceeds. This might be, for example, if demand grows in different ways from those expected when the HLOSs were drawn up, or if after publication of BP09 a better means of increasing capacity on some parts of the network is identified.

- 2.15 BP09 will therefore be an essential document for Network Rail's customers and funders, and a key reference for our monitoring. This is a change from the existing position where Network Rail publishes a business plan each year covering the following ten years. In the light of experience and of practice in other sectors, we are not convinced that this is the best approach for Network Rail or its stakeholders.

Monitoring

- 2.16 We monitor Network Rail's behaviour and performance to assess whether it is meeting its obligations, as defined in periodic reviews and by its network licence. We publish reports on its performance for its stakeholders and the company itself, at present primarily in the quarterly Network Rail Monitor and the more detailed Annual Assessment.
- 2.17 This monitoring will continue to use a far more extensive range of metrics and indicators than simply those which form the regulated output commitments.
- 2.18 We will be developing our thoughts on monitoring for CP4 over the next few months. **We will welcome any early comments as to the scope and focus of our monitoring and reporting activities in the next control period.**

Form of the final determination of PR08

- 2.19 We are therefore looking at 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 determination of PR08, and published in BP09. These will become customer reasonable

requirements (CRRs) and will therefore also be enforceable under the network licence;

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

2.20 The top level outputs will be part of a package in our final conclusions for this periodic review. 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 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 (see below);
- how proposed changes to 2009 business plan commitments should be handled;
- details of how we will monitor Network Rail and take action to enforce delivery if necessary; and
- details of how we will report on Network Rail's performance in delivering the outputs and the HLOS.

3. Proposed output specification

- 3.1 We now set out our proposed approach to defining outputs for each of the key areas where we believe this is appropriate².

Safety and health

Safety in the HLOS

- 3.2 The HLOS issued by the Secretary of State specifies safety improvement for the whole of the British³ mainline network to be achieved over the five years of CP4. It requires a 3% reduction in the risk of death or injury from accidents on the railway for passengers and rail workers⁴.
- 3.3 Both Network Rail and train operators will contribute to achieving this improvement, and we require Network Rail to set out in its strategic business plan (and subsequently BP09) 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 improvement. ORR will, of course, expect the industry also to continue to comply with its general and specific legal obligations in respect of health and safety.
- 3.4 We have discussed with the Department for Transport (DfT), RSSB, Network Rail and train operators how to monitor delivery of the HLOS safety specification. We propose that an annual review of progress be held, involving DfT, RSSB, Network Rail, train operators and ORR. This would review data, identify any problems, establish reasons and, if necessary, agree what corrective action to take to deal with them. We propose that monitoring should be at whole-industry level since there are difficulties in separating individual

² It is important to remember that at all times Network Rail must comply with the obligations in its licence. Under Condition 7, it must strive for best practice in all its activities, subject to the funding available. This means that it must still meet certain expectations in areas outside those in this list, and that even where it is meeting targets in areas covered by this list, aspects of its behaviour may still contravene its licence.

³ Because safety is not a devolved matter, the SoS is looking for risk-reduction across the whole of the railway in Great Britain.

⁴ Measured in fatalities and weighted injuries per million passenger kilometres (for passengers) and per million hours worked (for rail industry employees).

companies' contributions. As the specification covers the entire control period we will need to agree an intermediate trajectory against which we can monitor progress.

3.5 Our aim is for the monitoring to use or build on the existing systems across the industry. The output from the existing industry Safety Risk Model (SRM) will be the primary means of establishing whether or not the HLOS safety requirement is being met. The SRM is updated every eighteen months or so to reflect developments in the industry's understanding of risk (for example, reflecting the knowledge gained from the investigation of incidents). Therefore, since there will be only two or three updates during the next control period, monitoring the delivery of the safety requirement will be supplemented by regular reporting using:

- for the workforce - actual fatalities and weighted injuries (FWI);
- for passenger train accident risk - the precursor indicator model (PIM), an existing industry model which uses reported 'precursor' events to model risk; and
- for non-train passenger accidents, actual FWI.

3.6 In this way, actual and modelled data will be combined to give a regular indication of delivery against the safety specification.

3.7 **Consultees are asked for views on the proposed method of monitoring progress toward achievement of the safety specification.**

Going beyond the HLOS

3.8 In previous access charges reviews ORR has set outputs for Network Rail relating to asset condition, such as broken rails, which can have a bearing on safety. However neither ORR nor the Health and Safety Executive (HSE) has previously set specific health and safety outputs for rail.

3.9 The inclusion of safety in the HLOS, and the merging of ORR and HMRI/HSE Rail in 2006, raises the question of whether we should also set specific health and safety output requirements for Network Rail to encourage further improvements, particularly in areas that the HLOS does not cover. The attractions of this lie in encouraging the company to focus on important health and safety areas and commit to specific actions. However this may distract

attention from other important health and safety areas, or create perverse incentives and counter-productive activity that could cause the company to fail to react to changing circumstances. After considering these issues we do not propose to set health and safety outputs beyond those which follow from the HLOS.

- 3.10 However there may be advantages in requiring Network Rail to record, monitor, and publish data on health and safety risks beyond those that will be used in monitoring progress toward delivery of the safety specification. For example, established good practice among many major companies includes collecting and monitoring data on occupational health risks.
- 3.11 We recognise that RSSB and Network Rail already collect and publish large amounts of data⁵. Therefore, where Network Rail collects data relating to the safety specification, we would only wish to add to them where there are clear benefits in doing so.
- 3.12 As part of our consultation, you are invited to comment:
- **on the approach set out above;**
 - **as to whether there are clear benefits in Network Rail collecting, monitoring and publishing data beyond that which it and RSSB already do and, if so, what areas of health and safety risks would most benefit from this kind of requirement.**

Train performance

- 3.13 The reliability of the railway is important to everyone - passengers, freight customers, the industry, and Government. Both of the HLOSs include requirements for franchised passenger train performance. Network Rail is also accountable for the performance of freight and non-franchised passenger services. We intend to establish commitments on operational performance which will cover all of these services at both the overall national network levels and at disaggregated levels.

⁵ For example, RSSB's Safety Management Information System (SMIS), RSSB's Annual Safety Performance Report and Network Rail's Safety and Environment Assurance Report (SEAR).

- 3.14 The 2003 periodic review set annual performance targets in terms of total delay minutes (attributable to Network Rail) and delay minutes per 100 kilometres for franchised passenger operators. In 2006 we modified Network Rail's licence to reflect the Railways Act 2005 and to clarify its responsibility to facilitate whole industry performance. We expect Network Rail to show leadership in managing the industry's performance, and to manage its own performance. After considering this and the use by both HLOSs of the public performance measure (PPM)⁶, in setting outputs for CP4 we propose for passenger services to focus more on Network Rail driving achievement of PPM and (for England and Wales) the significant lateness HLOS requirements, but with an expectation that there will also be targets for Network Rail's own delay minute reductions.
- 3.15 Because of the relatively low number of open-access services we do not plan to set a separate top level output target for them alone. We also see no case for Network Rail to distinguish between disruptions to franchised services and disruptions to other passenger services. We therefore propose, for determining this top-level regulated output, to apply the same PPM-based targets to franchised passenger services alone and to franchised and open access passenger services combined.
- 3.16 For freight services we believe that a suitable metric would be an aggregate Network Rail delay minutes based performance trajectory⁷. This will match what is being proposed in freight track access agreements in the performance regime for CP4 and will allow freight operators to plan their businesses with some certainty.
- 3.17 We propose to use three types of indicator for operational performance covering: (a) top level regulated outputs; (b) customer reasonable requirements subject to regulated change control; and (c) performance diagnostic indicators.
- 3.18 The table below sets what each indicator covers.

⁶ The PPM reflects delays and cancellations caused in aggregate by train operators and Network Rail.

⁷ A time-based series of targets for delay per 100 train-kilometres.

	Franchised passenger and open access operators	Freight
Top level regulated output (for each year of CP4)	<ul style="list-style-type: none"> • ScotRail PPM • For England and Wales, sector PPM and significant lateness (franchised and open access operators): <ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> • Network Rail total delay minutes per 100 train-km
Customer reasonable requirements (for each year of CP4)	<ul style="list-style-type: none"> • Train operator PPM • Network Rail delay minutes for each train operator (derived through JPIP process where applicable) 	<ul style="list-style-type: none"> • Network Rail delay per 100 train-km caused to each individual freight train operator
Diagnostic Indicators	<ul style="list-style-type: none"> • Network Rail delay minutes by the type and location of delay 	<ul style="list-style-type: none"> • Network Rail delay minutes by the type and location of delay

3.19 **Consultees are asked for their views on our proposed approach on the outputs for operational performance, including our proposals for geographical disaggregation. Is there other disaggregation which would be more suitable?**

Network capacity

3.20 The HLOSs will require Network Rail to make specific capacity enhancements to its network in CP4. In summary these are:

3.21 For England & Wales:

- **Thameslink** - upgrading the Thameslink line and extending its service pattern;
- **Birmingham New Street** - undertaking works to tackle crowding problems and improve the passenger environment;

- **Reading station** - carrying out works to deliver the increased capacity required in CP4 and to meet other longer-term passenger and freight movement requirements;
- **peak period capacity** - accommodating arriving passengers at Birmingham, Cardiff, Leeds, Manchester and other urban areas, and at the main London termini across the three-hour morning peak and across the one-hour high peak; and
- **route capacity** - accommodating the total level of forecast demand, in passenger kilometres, on each of its 23 strategic routes.

3.22 For Scotland:

- **Glasgow Airport Rail Link** (to open Quarter 1, 2012);
- **Airdrie-Bathgate Rail Link** (to open Quarter 4, 2010);
- **Borders Railway Link** (to open Quarter 4, 2011); and
- to produce a credible and affordable plan to progress projects for infrastructure enhancements to improve the journey times, increase reliability, and increase capacity between Edinburgh and Glasgow and in Ayrshire and the Highlands.

3.23 We also expect Network Rail to facilitate the implementation of a strategic freight network, as described in the DfT's HLOS.

3.24 We expect Network Rail to set down in detail, first in its strategic business plan then in BP09, how it will deliver its part of increased capacity (including demonstrating that this will provide sufficient capacity to achieve the required load factors on trains) and include intermediate milestones for these outputs.

3.25 The milestones and targets will generally form customer reasonable requirements and be subject to the change process mentioned in Chapter 4.

3.26 **We would like your views on whether there are any other network capacity related outputs that may need to be secured.**

Network capability

- 3.27 The 2003 access charges review concluded that Network Rail should maintain the capability of the network for broadly the existing use at April 2001 throughout CP3, subject only to network changes authorised under the Network Code. This meant that the size of the network, the proportion that was electrified and the number of stations and facilities provided at them should not be reduced, and that Network Rail should not permanently reduce the maximum speeds or axle loads on any route.
- 3.28 We subsequently found that the meaning of “broadly existing use” was not clear. Network Rail had interpreted this to mean the level of traffic actually on the network at April 2001. We wrote to Network Rail in July 2005 to make it clear that “broadly existing use” meant the capability of the network as published in the Sectional Appendices in April 2001. Network Rail then admitted that there were some 40 routes where it knew there was a discrepancy between the actual and the published capability. Since then Network Rail has carried out a programme to verify the capability of the whole network, which it is due to complete in September 2007. We are expecting the original discrepancies and most of the new ones found in Network Rail’s programme to be rectified before the end of CP3. The exception may be any discrepancies discovered in the route availability verification exercise that the industry agrees should be restored to published capability. These may not be restored until CP4 (even though Network Rail has already been funded in CP3 for this) because of the time needed to plan the work.
- 3.29 As part of its programme on infrastructure capability, Network Rail has proposed a new process in Part G of the Network Code. This is because there may be a potential need for a route’s full capability in the longer term but not in the short term (normally two years). In these circumstances it would not generally be efficient for Network Rail to maintain the route to the higher capability until there is a demand for its use. Network Rail is introducing a short-term network change process to address this. In proposing short-term network changes, Network Rail must say how long it would take to restore the route to the higher capability. Network Rail will normally have to bear the costs for doing this.
- 3.30 Network Rail is reviewing the way it publishes capability information and may ask for the industry’s views on moving to an electronic format that is more

accessible and reliable. We understand that Network Rail expects to develop this further over the next year.

- 3.31 After considering these developments during CP3, we propose for CP4 that Network Rail should maintain the capability of the network as at 1 April 2009 as published in the documents used to describe network capability at that time, subject to network change as described in Part G of the Network Code, and to the capacity enhancements described above.

Tonnage capability

- 3.32 Capability is currently defined in terms such as axle load, line speed and gauge but not in terms of gross tonne miles on a route. Network Rail has stated that unanticipated step changes in traffic can have a disproportionate impact on the costs of maintaining and renewing the routes affected. It is therefore proposing a new definition of capability that would include gross tonnage so that it can identify where step changes in traffic could lead to increases in maintenance and renewals costs.
- 3.33 Some concerns have been raised about how this measure is developed. In particular it is not yet clear what the extra costs may be and whether funding has already been provided for such costs through variable access charges. There are also questions about how such a measure could be practically introduced and the additional complexity it may introduce.
- 3.34 We are considering whether Network Rail's proposals are appropriate and this will inform our decision on the outputs required for CP4. We are also aware of strong views in the industry.
- 3.35 **We would like your views on:**
- **our approach to funding Network Rail for maintaining network capability;**
 - **aggregate tonnage as a dimension of route capability; and**
 - **the measures of network capability that Network Rail might include in its business plan for CP4.**

Network availability

- 3.36 The industry, government and regulatory bodies have been concerned that the level of disruption caused by engineering work has been increasing. It has been difficult to engage on this issue because of the lack of an appropriate system for monitoring such disruption, whether it is planned or unplanned. Although Network Rail now produces 'network availability' statistics on a four-week basis these do not reflect the effects of disruption from the point of view of operators and final customers. The industry has been working to develop an agreed indicator for some time. However, progress has been slow and we have decided to bring the work to a conclusion so that an output target may be set in good time in this periodic review.
- 3.37 To do this, we have commissioned consultants (Steer Davies Gleave) jointly with Network Rail. They are consulting across the industry to develop one or more KPIs which reflect the disruption that engineering possessions cause users.
- 3.38 We believe that such measures should be easy to understand, help Network Rail in balancing its needs with those of rail users, and contribute to improving efficiency. We are looking for pragmatic and realistic measures for which the necessary data and IT systems can be put in place without imposing undue burdens on the industry. Emerging findings will be discussed at an industry seminar in the autumn. A final report is due in October 2007. We intend to publish the findings.
- 3.39 We propose to set top level output trajectories for network availability using such a KPI. We would expect Network Rail to deliver increased network availability in the control period, as it has made clear it wishes to do. There would be separate trajectories for England and Wales and for Scotland. We will consider to what extent Network Rail should include disaggregated targets below this level.
- 3.40 Industry stakeholders will have the opportunity to provide us with project-specific comments at the time of the industry seminar.
- 3.41 **We would be interested in your views on:**
- **our proposal to introduce a new output on network availability; and**

- **the importance of the ability to disaggregate any measure and include targets in Network Rail's business plan.**

Asset serviceability

Consideration of the approach

Measuring and monitoring asset condition

3.42 The condition of Network Rail's assets affects both the safety of the railway and its performance. Unlike other areas where Network Rail has to meet a standard of performance or achieve targets that relate only to CP4, how the company treats its assets will directly affect the sustainability of its infrastructure in the longer term. We therefore intend to establish measures to ensure that the long-term sustainability of the network is not compromised.

3.43 Asset condition and serviceability has historically been an area where ORR has set specific outputs for Railtrack/Network Rail. PR08 provides the first significant opportunity to review asset condition measurement and reporting since 2000. There are good reasons for carrying out a review:

- improvements in the overall condition of assets mean that some measures may no longer be as appropriate as they were in the past;
- we have seen how a system for monitoring asset condition works and how it can influence Network Rail's activities, sometimes at the expense of other activities which arguably could have been important in determining long-term asset condition and performance; and
- the requirement for a greater differentiation of policies and outputs for various parts of the network leads inevitably to more sophisticated methods for monitoring asset stewardship.

3.44 We have considered whether there is case for monitoring using some form of overall index. There is an obvious attraction in being able to see a 'big picture' by referring to a small set of figures, but such figures must be unambiguous and truly representative of actual conditions.

3.45 Network Rail currently reports on the condition of its assets through the Asset Stewardship Index (ASI) which also drives part of its management incentive plan. The ASI was constructed from a range of measures designed to give wide coverage of the network infrastructure. It was weighted towards those

assets - particularly track - that require the highest levels of expenditure and which have the greatest impact upon the overall performance of the network.

- 3.46 The problem with an overall index is that its value depends on its construction and the weighting between each of its parts. There is current evidence of how misrepresentative an index can be. We are discussing with Network Rail the performance and reliability of certain groups of assets (such as points failure incidents and faults in signalling systems) and our concerns about the ongoing management of these assets are not being reflected in the ASI figure, which is strongly positive.
- 3.47 This has led us to the view that we will need to continue to analyse asset data for specific types and groups of assets, and which is capable of being understood at a level of disaggregation below whole network figures.
- 3.48 This does not mean that there is no case for some kind of 'network condition index'. Compiled into a time series it may show a trend, and it might therefore contribute to forming judgments about long-term network sustainability, but it could not be a free-standing measure of that sustainability.
- 3.49 Network Rail is keen to develop the use of indices for its own purposes. It has been working on improvements to the existing ASI, essentially by (a) altering some of the primary measures within it (b) amending the weighting factors between its component parts and (c) introducing a new form of weighting that reflects the relative impact of the quality of its asset management on different parts of the network.
- 3.50 All these developments are logical, and if we use any form of network condition index for CP4 we would expect many or all of these changes to be included within it. Network Rail's work shows that it is possible to improve the current ASI significantly. However we consider that the ASI should be a tool for Network Rail and a monitoring reference for us, but should not be the primary means by which we assess the condition of Network Rail's assets.
- 3.51 Network Rail has introduced a new composite index of renewals activity in its annual return for 2006-07 to try to give an overall indication of the status of renewals delivery. In our view this measure can misrepresent the future sustainability of the network. For example, high levels of activity and expenditure on long life assets (such as structures) could distort the index

even if activity levels on critical assets with shorter service lives and high performance impacts were too low to ensure long-term sustainability.

- 3.52 For the first time Network Rail's Strategic Business Plan will be underpinned by a full set of asset management policies, which will define how each class of asset should be managed to ensure that performance is delivered sustainably and with minimum whole-life cost. The role of these asset policies is vital.

Monitoring asset management sustainability in CP4

- 3.53 We believe that we will probably need a 'dashboard' of indicators as opposed to an index. These indicators will need to be judged and interpreted carefully, but will provide a sound basis on which to monitor the long-term sustainability of the network.

- 3.54 The four key indicators we are considering are as follows:

- **Asset policies:** Network Rail's asset policies determine how often and to what standard its assets are maintained and renewed. They provide a vital indication as to the long-term sustainability of the company's assets. Once we are satisfied that the policies are sound, which we will review as part of PR08, we will need to monitor that the company is adhering to them;
- **Asset age:** this may provide valuable information about the sustainability of the network. It may best be used where assets are replaced on a reasonably well defined time-based cycle and where degradation rates are predictable. However asset age indicators must be interpreted carefully since (a) activity levels are likely to fluctuate with time; (b) not all asset types lend themselves readily to this analysis; and (c) managing some asset types to hold an average age steady may not be the most economic asset management policy;
- **Asset management activity levels:** these can be a useful indicator of long-term network sustainability. As long as Network Rail's business planning processes and forecasting abilities are strong, significant shortfalls of planned activities are likely to be a good leading indicator of future problems with the network's performance and reliability. Such an indicator is best used over a whole control period;
- **Current asset condition:** a declining trend of the condition of an asset from regular reports may act as a leading indicator and provide a warning

of future problems. We expect that much of the existing reporting regime and definition of reporting measures can be used in CP4 but we plan to consider areas where existing measures may not be providing the most meaningful information.

3.55 We plan to develop the above aspects of monitoring, building on the substantial foundations that already exist within present monitoring regimes. The sections below outline the existing and proposed monitoring arrangements for each asset category.

Track

3.56 Some types of assets (such as bridges, stations and signal interlockings), which consist of distinct components that can be measured separately, have their condition or their remaining life measured by means of a single whole system score. The score, which is effectively an index, is generated by combining an assessment of each core element into a single weighted figure.

3.57 Track is also a system that comprises several key components, but no such detailed condition index is produced. Instead, we have relied upon the separate measurement and reporting of several different aspects of track condition during CP3:

- track geometry
- broken and defective rails
- condition related temporary speed restrictions.

3.58 The monitoring of such specific condition measures is supplemented by asset performance and reliability data, using TRUST attributed figures for delay minutes and numbers of incidents occurring. For track assets, these figures include temporary speed restrictions (TSRs) delay incidents, track faults and points failures. Taken together these measures give us a reasonably comprehensive picture of what is happening with the condition of Network Rail's track.

3.59 We believe that this approach is effective and well established, and we propose to continue with the same principles for CP4.

3.60 However, there are options for amending some details. For example, we still monitor track geometry against the targets that were established in 1998. We

are looking at this afresh and are considering a proposal by Network Rail to replace this form of reporting with measures of the amount of track that has either good or poor track geometry. This would focus on the top and bottom 'slices' rather than the whole spectrum of measured track geometry.

3.61 We would still expect to continue to monitor separate localised severe geometry faults (known as level 2 exceedences).

Signalling

3.62 We do not propose to make changes to the scope of the present monitoring regime, which focuses on two key characteristics of the signalling system:

- its age, measured as an assessment of its remaining life using the family of Signalling Infrastructure Condition Assessment (SICA) tools;
- its performance and reliability, measured by recording the number of signalling system failures.

3.63 However CP4 offers the opportunity to improve the current system, in which two similar measures are used with slightly different definitions. The TRUST system records any failure of signalling equipment in a number of categories, provided the delay exceeds three minutes. However, Network Rail's annual return figure is based upon the collection of signal failure data with a ten-minute threshold. There are historic explanations for this variation, but we believe there is a strong case for removing it and using only one measure to record failure data. We will develop our thinking on this with Network Rail, but **we would be grateful for views on this issue.**

Electrification

3.64 The monitoring of the condition of electrification assets is based upon very similar principles to those for the signalling system i.e.:

- a physical condition assessment (although not based upon a remaining life assessment) of distribution and contact systems; and
- performance and reliability measures, measured by recording the number of system failures and consequent delays.

3.65 Data is monitored for both third rail DC systems and 25kV overhead line systems. Again we see little reason to make any substantial changes to this

approach in CP4, although we would aim to remove any inconsistencies where particular threshold delay minute figures apply to individual incidents.

3.66 However, Network Rail is making improvements to the way these assets are inspected and monitored. We expect that as its knowledge improves (for example with the diameters of overhead line contact wires) Network Rail should become more capable of accurately predicting the remaining life span and therefore should produce more accurate assessments of long-term renewal volumes. In PR08 we want to consider opportunities for better life assessments in monitoring this group of assets through CP4.

Civil Engineering Structures

3.67 In CP3 the condition of the broad range of different types of structure is captured by two simple measures:

- reporting of the Structures Condition Marking Index (SCMI) score for each bridge assessed; and
- a measure of the number of temporary speed restrictions applied to structures in poor condition.

3.68 We believe that this is still a reasonable approach for CP4, but we are considering Network Rail's proposal to add a measure of the number of structures subject to 'special examination'. In effect, this is a count of the number of bridges for which there is enough concern about their condition to justify inspecting them more often.

3.69 At present, all condition information reported is restricted to bridges. We remain concerned that similar condition assessment data is not becoming available for other important types of structure such as tunnels, walls and coastal defences and we intend to press Network Rail on this.

Earth Structures

3.70 In CP3 the only means of assessing the condition of earth structures (cutting slopes in rock or soil and embankments) is counting the number of related temporary speed restrictions and the number of slope failures.

3.71 Because there is now a well-established hazard rating assessment in place for earth structures, by which each is assigned a degree of risk of failure, the distribution of assessed risk should serve as the primary means of monitoring

the long-term condition of the structures. This should be supplemented by the existing measures.

Drainage

3.72 All of the measures above relate to specific aspects of the condition or reliability of individual types of asset. However, there is another factor that strongly influences the long-term life and sustainability of assets, which is how water on the railway infrastructure is managed.

3.73 No measure of the condition and performance of drainage (including lineside drains, ditches and culverts) is currently reported, and as yet none has been proposed by Network Rail. We believe that there needs to be a measure of the condition of the network's ability to handle water during CP4. This could include:

- a report of the total length of drains inspected;
- an activity report (such as the length of drains renewed and/or cleaned); and
- recording the number of failure incidents including flooding incidents and collapses.

Telecommunications

3.74 The process for monitoring the condition of telecoms assets is based on similar principles to that for the signalling system:

- a physical condition assessment of fixed and radio systems; and
- performance and reliability measures, measured by recording the number of system failures and consequent delays.

3.75 During CP4 the Global System for Mobile Telecommunications for Railway (GSM-R) and Fixed Telecommunications Network (FTN) project will be completed. This should mean that most communications links would be rerouted automatically if a failure were to occur. However having a system which monitors consequential delays will not, by itself, be sufficient to monitor the condition of those assets. It will therefore be essential to monitor the failures that compromise system redundancy.

Operational Property

3.76 We have measures in place for tracking the condition of and facilities at operational property such as stations and depots. These are discussed separately later.

Proposals for asset management sustainability

3.77 We believe that it may not now be necessary for us to set top level regulated outputs for asset condition in CP4. Rather we believe that Network Rail should deliver sustainable asset management in a way that is meaningful and measurable through a two-stage process:

- Network Rail's October 2007 strategic business plan should set out the asset policies and condition outcomes at appropriate levels of disaggregation. Part of our review and challenge process will seek to understand the justification behind the predicted outputs for given asset policies and activities;
- Network Rail should demonstrate clearly in BP09 the detail of proposed maintenance and renewal activities and condition levels during CP4, consistent with the final determination of PR08. We will then monitor the company's actual performance against those published plans and targets. Should our monitoring lead to concerns about the management or serviceability of specific types of asset, we will investigate whether this is evidence of failure to comply with the network licence.

3.78 **We would be interested in your comments on:**

- **our proposal not to set top level regulatory outputs for the condition of Network Rail's assets, but to require Network Rail to set out its plans in its 2009 business plan (which will cover CP4);**
- **our view that network serviceability and sustainability cannot be monitored usefully by a single index;**
- **our proposed approach to monitor network serviceability and sustainability using a 'dashboard' (as opposed to an index) of several indicators, including a review of asset policies; and**
- **our approach to monitoring and holding Network Rail to account through asset indicators.**

Stations and depots

Stations

- 3.79 Stations are perhaps the most customer-facing assets. In CP3 Network Rail's obligation is to prevent any worsening of the average condition for stations⁸. For CP4 the Secretary of State has provided £150 million, through the HLOS, to support improvements at around 150 intermediate stations in England and Wales, subject to Network Rail and train operators producing proposals that are deliverable. These improvements are to be incremental to the work that Network Rail would otherwise plan for these stations. Network Rail is working with train operators and other stakeholders to identify which stations should benefit from this extra funding.
- 3.80 We believe that, before taking account of this additional funding, Network Rail should be obliged in CP4 to continue to maintain the average condition of all stations as defined by an improved station condition measure (see below).

Revised station condition measure

- 3.81 Network Rail reports on the existing station condition index in its annual return⁹. Since the score is presented as an average it gives Network Rail considerable discretion on to how to achieve the target.
- 3.82 Network Rail has proposed a revised measure which weights assets according to their value to the station. It is carrying out surveys at all stations and depots, and is scheduled to complete them by the end of September 2007. We propose to set an asset condition target based on this methodology once we have an updated weighted average score from Network Rail.
- 3.83 We believe that sustainability of station asset management should be monitored in this way, as it is not easy to detect failing asset condition at stations using other performance measures. This measure bolsters the relatively short-term incentive created by access contract and lease obligations.

⁸ That is, the overall conditions of stations at the end of CP3 should be no worse than the 2003-04 average condition grade of 2.25.

⁹ Network Rail's annual returns and the details of the station condition measure can be found on Network Rail's website at www.networkrail.co.uk.

3.84 We propose to require Network Rail to maintain the average station condition within each category of station (A to E), both for England & Wales and for Scotland. This avoids the risk that the form of the condition measure creates perverse incentives to favour, or discriminate against, stations of a particular size.

3.85 **We would like your comments on whether station assets need a regulatory target to supplement other obligations and, if so, whether you agree with our views set out above.**

Station facilities

3.86 Network Rail is required to report against a second measure, of station facilities, in its annual return. It does not take account of the condition of an asset or its fitness for purpose, but merely shows that a particular asset exists. Changes in the index provide no information about whether a category of stations has too many or too few facilities.

3.87 No regulatory outputs were set relating to this measure in CP3. However it has been a useful monitoring measure because it allows trends to be identified as they emerge and provides a baseline for the facilities that should exist at stations. It allows Network Rail to compare these objective trends with the findings reported from Passenger Focus surveys.

3.88 For CP4 we do not propose to specify top level regulated outputs for the station facilities measure but will continue to monitor it through the Annual Return.

3.89 **We would like to hear your views on our approach to monitoring facilities at stations in CP4.**

Depots

3.90 Network Rail is landlord for a large number of depots. Some of these - light maintenance depots - are regulated under the Railways Act 1993. We have considered whether we should set any regulated outputs in relation to the condition of these assets.

3.91 We do not regulate the lease charges for these depots. However, because of the short length of these leases we believe that to back up its obligations as

lessor Network Rail should also be obliged to maintain the condition of its depots in a steady state condition over the longer term.

3.92 We propose that Network Rail should set out and justify in its strategic business plan its expected activities and expenditure at depots for CP4. Such plans should then be published in BP09 and would become customer reasonable requirements.

3.93 During CP3 we have tracked the average condition of depots using the depots condition index, which suffers from the same drawbacks as the equivalent station measure. Network Rail is therefore planning to change it in a similar way. We have asked Network Rail to consult the industry in particular on its proposals for weighting depot assets. Completion of a new index is linked to implementation of the Depots Code, so it will not be possible for Network Rail to propose a new index and target in its strategic business plan. We propose that Network Rail should be required to achieve the existing target for depots until a new index and target can be defined in BP09. Network Rail will be required to report on the existing target each year in its annual return until the new index is introduced.

3.94 **We ask for your views on:**

- **whether, in addition to the ongoing lease and network licence requirements, a separate output, and any customer reasonable requirements arising from Network Rail's 2009 business plan, would give stakeholders additional assurance that depot condition will not, on average, deteriorate in CP4;**
- **whether a targeted output such as the depot condition measure would be helpful; and**
- **Network Rail's proposals to base the new depot condition measure on the approach of the station condition measure and whether there are any factors governing activities at depots that require a different approach to that for stations?**

Customer satisfaction

- 3.95 ORR's vision for the mainline railway¹⁰ is Network Rail working in partnership with train operators, funders, and suppliers to deliver a safe, efficient, high-performing and developing railway. Network Rail has, however, attracted some criticism for not always dealing satisfactorily with its customers' needs - for example in relation to accommodating additional demand and third-party investment. The company's surveys of its own customers (passenger and freight operators) satisfaction have tended to show disappointing results.
- 3.96 This is an important area for Network Rail to address, and one that will call for a different approach from that needed to achieve 'harder-edged' operational and engineering output targets.
- 3.97 We considered setting an output target in this area to encourage the company to give as much weight to this issue as to 'harder-edged' ones. However, we recognise some of the potential drawbacks, particularly since the company has relatively few direct customers and the survey results could be unstable or unrepresentative.
- 3.98 If Network Rail were, in future, to give significant weight to measures of customer satisfaction in its management incentive arrangements we would certainly consider it unnecessary to set a regulatory target. We would, of course, continue to monitor the measure. In the absence of such a move we would give serious consideration to setting a regulatory output for improvements in customer satisfaction as measured by the company's surveys.
- 3.99 We are making no proposals for customer satisfaction in relation to end customers (passengers and freight customers) or suppliers.
- 3.100 **We would welcome your views on the approach to customer satisfaction.**

¹⁰ See our corporate strategy, available from the ORR website at www.rail-reg.gov.uk/upload/pdf/280.pdf.

Other areas

Network planning and timetabling

- 3.101 One of Network Rail's key roles and services is the planning and delivery of access to its network. Over the past few years the industry has made a number of changes to the processes for planning and providing access and we believe that it is important for improvement in this area to continue.
- 3.102 However the industry has been concerned for some time about Network Rail's understanding of capacity allocation issues and its ability to plan ahead. Over the last few months we have reviewed the approach Network Rail is taking to access planning and sought to assess how well its approach to access planning is aligned with the expectations of its stakeholders. Our aim has been to identify areas where further improvements may be made so that the company may understand and achieve the level of capability required by its customers.
- 3.103 Once the reasonable requirements of Network Rail's customers and funders in the area of access planning have been established we would like to monitor the company's compliance in meeting them. We believe that Network Rail should develop indicators and diagnostics for the work it does on overall network planning (such as route utilisation strategies) and responding to requests for new access rights and timetabling.
- 3.104 We presented our views of the industry's expectations at the Rail Industry Planning Conference in June 2007. Network Rail is keen to develop its response to stakeholders' needs and is now working to produce a set of outputs and service levels for the access planning activity. As part of that work Network Rail will contact stakeholders to confirm its approach and we expect that a draft document will be available for consultation by the end of September 2007. We will then consult train operators and funders for views.

Environmental performance

- 3.105 We consulted on how best to discharge our sustainable development and environmental duties in October 2006¹¹. In our April 2007 policy conclusions document¹² we placed particular importance on making sure that

¹¹ Available on our website at www.rail-reg.gov.uk/upload/pdf/304.pdf.

¹² Available on our website at www.rail-reg.gov.uk/upload/pdf/324.pdf.

environmental performance information published in respect of the railways is robust, owned by the industry, and made available to a wide audience.

3.106 We believe that this approach will:

- identify any reasons for changes in performance; and
- help the industry to understand how any actions it takes can influence future environmental trends (for example, by putting best practice principles in place across the industry).

3.107 To achieve this we plan to include in National Rail Trends a small set of agreed industry KPIs - with comments where appropriate - that highlight how the railways are performing in dealing with important environmental issues.

3.108 Through the Rail Sustainable Development Group, the industry - including Network Rail - has agreed a number of environmental KPIs that it believes it is appropriate to measure and publish. These include measures on energy use and carbon emissions. We plan to include an initial set of KPIs in National Rail Trends from December 2007, with further refinement or expansion over time to address and reflect the relevant importance of specific sustainability issues.

3.109 We have asked Network Rail to propose sustainable development indicators (which will include environmental indicators) in its strategic business plan, to show how its proposed activities during CP4 will contribute to developing a sustainable railway. We will review these proposals before deciding how we believe such issues should be addressed in future annual business plans, in terms of the scope and level of sustainable development information (including environmental indicators).

3.110 We do not, therefore, propose at this stage to set specific environmental performance outputs for Network Rail. We recognise that providing a sustainable railway is already one of its main strategic objectives, and we believe that the measures above will ensure that this important issue is kept under review and addressed appropriately.

3.111 **We would like your views on this approach.**

4. Changes during the control period

Top level regulatory output specifications

- 4.1 Once the final determination for PR08 has been made, we would not expect there to be changes to any top level regulatory outputs that we specify. These obligations will apply for the control period and would only change in exceptional circumstances.

Customer reasonable requirements defined by Network Rail

- 4.2 The situation could be different for the disaggregated outputs Network Rail will publish in BP09. These would include the main 'milestones' in delivering additional capacity.
- 4.3 In setting its disaggregated targets Network Rail would show how it intends to manage its business (within the regulatory framework and expenditure allowed, and subject to our scrutiny). As a result its customers and funders would see clear disaggregated output commitments which would enable them to plan their businesses with a reasonable degree of assurance. These commitments would constitute reasonable requirements under Condition 7 of Network Rail's network licence and we would monitor their delivery as well as Network Rail's delivery of top level regulated outputs.
- 4.4 In BP09 we expect Network Rail to produce a robust plan to deliver our PR08 conclusions, including the reasonable requirements of its customers, within the expenditure allowed. We want to use the plan to ensure that Network Rail delivers the outputs it is funded for and to help us and Network Rail identify any problem areas and address any issues at an early stage. However, we also recognise that changes may be necessary over time. For example:
- Network Rail may identify a more efficient way of delivering an output;
 - new technology may alter the nature of what is delivered;
 - the 'trajectories' for delivering customer reasonable requirements may need to change for acceptable reasons; or

- Network Rail and its stakeholders may agree that there is a better way of delivering an end product.
- 4.5 If BP09 is to provide a reference point for Network Rail's delivery through CP4, it must be able to accommodate changes following industry developments or further thinking. But we want to ensure that there is a clear, regulated process for key changes. We are therefore proposing a change mechanism.
- 4.6 We think there may be the following types of changes in CP4:
- (a) in relation to capacity -
 - (i) changes to the way in which required capacity is to be delivered;
 - (ii) funder-driven changes to the specification of capacity;
 - (iii) changes in responsibility of different industry parties for delivering aspects of the HLOSs;
 - (b) changes to the disaggregated commitments proposed in BP09 in areas specified by ORR as constituting customer reasonable requirements; or
 - (c) changes to aspirational or more detailed descriptive elements of the 2009 business plan.
- 4.7 Of these, we expect proposals for significant changes under (a) and (b) to be subject to an agreed change mechanism. Changes to aspirational or descriptive elements should be a matter for Network Rail to deal with.

Proposed change mechanism

- 4.8 To avoid confusion and misunderstanding we consider it important for there to be clarity about this change mechanism before the start of the control period and so we provide our initial thinking below.
- 4.9 We consider that an effective and proportionate change mechanism should be based on the following principles:
- it must focus on significant changes and not be unwieldy by catching too much detail;

- it must reflect regulatory priorities;
- it must reflect the legitimate concerns of users and funders;
- it must not give rise to frequent changes which make it difficult to hold Network Rail to account for delivery;
- but it must not deter Network Rail from adopting the most efficient and effective approach to delivery in the light of developments during the control period; and
- it must be straightforward and transparent.

4.10 We propose the following approach to changes during CP4:

- (a) where, for whatever reason, Network Rail wishes to change the proposed means or timing of delivery of a capacity improvement, such a change will require our approval.

Example - Network Rail wishes to co-ordinate work on signalling at particular location as part of its plan to increase capacity with other work at the same location which is part of its general maintenance and renewal programme. It notifies us that it wishes to carry out the signalling work at a later date as it is more efficient to co-ordinate work on site and to disrupt services once rather than twice.

We will consider this in accordance with our section 4 duties. If this would impact on the specification of franchised passenger operations, we would consult the relevant funder before giving such approval. Agreed changes would be highlighted on Network Rail's website. We may ask the independent reporters to examine aspects of this notification, to advise us of its impact on key outputs;

- (b) Where bespoke arrangements are established with a third party for particular capacity schemes, such as Thameslink, we would expect changes to be handled in accordance with those arrangements;
- (c) We are developing our thinking with the industry on a mechanism for dealing with changes in responsibility for delivering aspects of the HLOS;

Example - increasing capacity through longer trains might be achieved by a train operator having selective door opening, rather than by Network Rail lengthening platforms.

- (d) for areas other than capacity, where we have required Network Rail to include its own disaggregated targets in BP09 to define customer reasonable requirements, we would expect it to notify us of proposed changes (which should still deliver, in aggregate, the top level output specification). We would expect Network Rail to consult affected operator(s) before doing so, and we would consider on a case-by-case basis any complaints from stakeholders about proposed changes. We may ask the independent reporters to examine aspects of this notification to advise us on its impact on key outputs;

Example - we might specify that Network Rail includes a route based Network Rail delay minutes target in its business plan. If Network Rail reassessed its performance target for a particular route in the light of particular events or circumstances, including discussions on a Joint Performance Improvement Plan (JPIP), we would expect this change mechanism to apply. Depending on the change, we might also ask one of the independent reporters to review the effect of the change in due course.

4.11 We would like your views on:

- **the need for a regulated change mechanism;**
- **the principles for any such mechanism; and**
- **the proposed approach.**

5. Impacts

- 5.1 Our approach to regulating Network Rail in CP4 is to set output obligations ourselves only at the top level and to let the company and the industry agree their own local means of delivering these where possible within a clear framework.
- 5.2 This has resulted in an approach with relatively few top level regulated outputs but with an increased number of 'customer reasonable requirements' defined by Network Rail to include in its business plan for CP4.
- 5.3 Where we will now instead monitor Network Rail's delivery of its business plan commitments, we have tried to maintain consistency with previous data requirements and processes and to require measures or data which the company has available or should reasonably have available.
- 5.4 In setting top level outputs and monitoring their delivery overall we believe that we are not requiring Network Rail to undertake any activities that a best practice network owner and infrastructure manager would not undertake itself. We do not consider that we would be placing an undue burden on Network Rail in trying to achieve the targets that we would set in the areas described in this document.
- 5.5 However, we would like the views of industry stakeholders on this. We would also be interested in any views from stakeholders who think that the proposals in this document may have a detrimental effect on them.
- 5.6 **We would welcome your views on any foreseen burden or negative effects on the industry as a consequence of our setting outputs in the areas described in this document.**

6. Acronyms / Glossary

ACR2003	Access charges review 2003
ASI	Asset Stewardship Index
BP09	Network Rail's 2009 business plan, covering CP4
Control period	The period (at present of five years) covered by the determination of a periodic review
CP3	Control period 3 (1 April 2004 - 31 March 2009)
CP4	Control period 4 (1 April 2009 - 31 March 2014)
CRR	Customer reasonable requirements - referred to in the purpose of Condition 7 of Network Rail's network licence
DC	Direct Current
DfT	Department for Transport
FOC	Freight Operating Company
FTN	Fixed Telecommunications Network
FWI	Fatalities and Weighted Injuries. It provides a single measure of harm or the risk of harm that captures not only fatalities but also major and minor injuries. In calculating FWI major and minor injuries are weighted in recognition of their relatively less serious outcome in comparison to a fatality. The current weighting is 0.1 of a fatality for each major injury and 0.005 for each minor injury
GSM-R	Global System for Mobile Telecommunications for Railway
HLOS	High level output specification - the SoS and Scottish Minister's specification of what they want to be achieved by railway activities
JPIP	Joint Performance Improvement Plan (between a train operator and Network Rail)
KPI	Key performance indicator
LMD	Light maintenance depot
M17	Station condition index - an average measure of station condition, reported on by Network Rail in its annual return
M18	Station facilities measure - a measure of the level of facilities present at stations broken down by station, reported on by Network Rail in its Annual Return
MFAS	Modern Facilities at Stations - a programme developed by the Strategic Rail Authority specifying facilities for staffed stations

OLE	Overhead line Equipment
Output	The result of activity
PIM	Precursor Indicator Model. Used by the railway industry to predict levels of safety, based on the occurrence of potentially dangerous incidents such as broken rails
PPM	Public performance measure - in this context, the percentage of trains arriving at destination within ten minutes of the time shown on the published timetable for long distance services, and within five minutes for regional services and London and South East services. Cancellations are included within PPM as services not arriving within time
PR08	Periodic review 2008
PR2000	Periodic review 2000
RSSB	Rail Safety and Standards Board
SBP	Strategic business plan (to be produced by Network Rail in October 2007)
SCMI	Structures Condition Marking Index
SICA	Signalling Infrastructure Condition Assessment. A model, used by Network Rail to assist in maintenance and investment planning
SoFA	Statement of Funds Available - a statement by the SoS/Scottish Ministers of the public financial resources that are available (or are likely to be available) to secure delivery of their respective HLOSs in CP4
SoS	Secretary of State for Transport
SRM	Safety Risk Model. A quantitative representation of the potential accidents resulting from the operation and maintenance of the UK rail network
Strategic Safety Plan	A joint statement by Britain's main rail companies setting out their agreed approach to managing safety-related activities
Top level regulated output	An output specified by ORR in its Periodic Review final conclusions. It would not normally change during the control period and its delivery is enforceable under Condition 7 of Network Rail's network licence
TOC	Train Operating Company
TRUST	Train Running System TOPS. A punctuality monitoring system, mainly fed by automatic inputs from signalling systems
TSR	Temporary Speed Restriction