

**Network Rail**

**Response to ORR's draft  
determinations**

**Periodic Review 2008**

September 2008



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## Executive summary

In June 2008 the Office of Rail Regulation (ORR) published its draft determinations as part of its periodic review of Network Rail's access charges for the period from April 2009 to March 2014 (Control Period 4 or CP4). This document forms Network Rail's response to the draft determinations.

There are many positive aspects of the draft determinations. In particular, we welcome the emphasis on the regulation of outputs and we believe there is a high level of agreement with many aspects of our plans.

Safety remains our over-riding priority. We also plan to achieve substantial improvements in cost, reliability and availability while delivering major investment and improving our responsiveness to our customers. This requires major change and the scale of challenge should not be underestimated. ORR itself has highlighted the challenge of managing such change while continuing to improve safety.

Our fundamental concern is that the proposed level of funding would be insufficient to enable the company to deliver the required outputs. The industry has already achieved very substantial improvements in the current control period and our plans have been based on challenging targets for improvement over the next five years. However, ORR has assumed very significant further improvements. In our view, there are serious flaws in ORR's analysis with the result that the potential cost savings in CP4 are very substantially overstated. Unless the draft determinations are revised, Network Rail would therefore be unable to finance its activities.

Network Rail has always recognised that an element of judgement is required in reaching a view on these matters and that our targets should be reasonably challenging. However, our clear view is that the overall package proposed in the draft determinations is currently unreasonable and unrealistic. This situation arises because every element of the package is, on its own, extremely challenging since ORR makes optimistic or aggressive assumptions across all parts of the business. Taken together the scale of the challenge is simply too great.

Our response aims to provide clear evidence in support of our view. However, this is made more difficult by the fact that the reasons for ORR's conclusions are not always transparent. We are

also surprised that important parts of our evidence appear to have been dismissed with little or no justification or not addressed at all in ORR's draft determinations.

**We believe there is a very compelling case for ORR making significant changes to its draft determinations and that this would provide the opportunity for continued success of the industry**

Figure 1 below illustrates the key elements of the difference in expenditure in Great Britain as a whole over CP4 between ORR's draft determinations and our update of the Strategic Business Plan (SBP). The left hand column shows the total expenditure allowance proposed by ORR and the right hand column shows that implied by the earlier update of our SBP. However, these are not directly comparable since the outputs would be different and the intermediate steps are explained below. The split between Scotland and England and Wales is shown in the appendix.

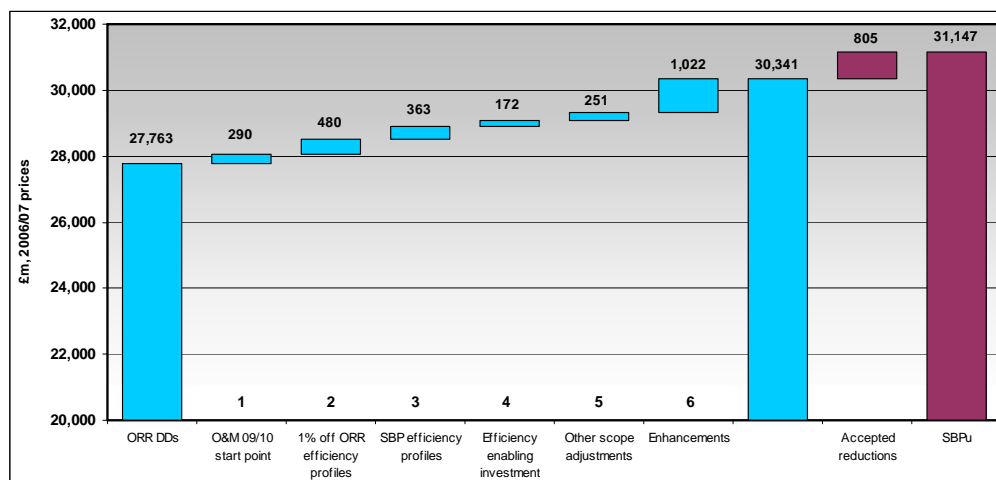
There are some elements of the draft determinations which we accept. In other areas we recognise that there is a policy choice to be made. These relate, for example, to the reduction in civils expenditure, the removal of double counting and some of the proposed adjustments to enhancements including the deferral of schemes due to planning issues. As shown in the penultimate column of Figure 1, these account for £805 million.

The remaining differences in expenditure represent a very substantial further stretch compared to our already challenging plans and we do not accept that this is realistic. The elements of this are summarised below. Clearly a large proportion of the differences we have identified would be funded through the Regulatory Asset Base (RAB) and the impact on our revenue requirements would therefore be much less than the expenditure variances shown in Figure 1.

### The 2009/10 start point

Achieving our existing projections for operating and maintenance costs in the first year of the next control period is already a major challenge and for ORR to assume a lower cost starting point is unrealistic. Column 1 in Figure 1 illustrates the impact of adjusting ORR's draft determinations so that these are based on our detailed assessment of the realistic level of

Figure 1 ORR and Network Rail CP4 expenditure projections



expenditure in the first year of the control period and then applying the ORR efficiency assumptions for subsequent years. This increases the projected expenditure by £290 million. We do not believe ORR has presented evidence to suggest that we could do better than this in the first year or that we would catch up any shortfall in later years.

### The efficiency profile

Given this starting point, it is necessary to take a challenging but realistic view on the scope for future efficiency improvements. In our view, however, ORR's assessment is unreasonable for the following reasons:

- critical elements of ORR's benchmarking are flawed and excessive reliance is placed on the results;
- ORR asserts that unit cost efficiency declined significantly following Hatfield and it wrongly implies that this could have easily been reversed without compromising outputs; and
- the pace of change required to deliver our plans for subsequent years is already highly ambitious given what has been achieved to date and given the other improvements which are expected over the next few years.

Columns 2 and 3 illustrate the impact of adjusting ORR's draft determinations to take account of these factors. Column 2 assumes a one per cent per annum reduction in ORR's assumed annual rate of efficiency improvement. This reduces the assumed annual operating cost efficiencies to 2.5 per cent and the assumed annual maintenance and renewal efficiencies to four per cent. For operating costs and maintenance it is assumed that any reduction in the rate of efficiency improvement would be applied to the

2009/10 base referred to above, while for renewals it is assumed that this would be applied from the current year. These assumptions would increase the projected expenditure implied by ORR's draft determinations by a total of £480 million (£75 million in operating costs, £92 million in maintenance and £313 million in renewals). This would still represent an enormous challenge in the early years and we remain of the view that the realistic rate of improvement will continue to diminish over the next few years. This would therefore be highly optimistic.

Column 3 adopts the annual rate of efficiency improvement assumed in the SBP and therefore implies lower efficiency improvements, particularly in the second half of CP4. This would further increase our expenditure requirement by £363 million (£103 million in operating costs, £124 million in maintenance and £137 million in renewals). Given the inevitability that the scope for efficiency improvement will diminish over time we remain of the view that this is a more appropriate assumption. This could potentially offer some limited prospect for outperformance in the later years but this is highly uncertain and would only be realised if the business was successful in maintaining a very high rate of annual efficiency improvement.

### Efficiency enabling investment

Substantial improvements in efficiency in the next control period and for the longer term require investment in people, processes and technology which need to be funded through the review. Column 4 shows the impact of adding to ORR's draft determinations the investment in IT and corporate offices which we believe it must be

wrong to exclude. This increases expenditure by £172 million.

### Other scope adjustments

The basis for some of ORR's proposed adjustments to renewal volumes is flawed and double counts scope efficiencies which are also included in its top down efficiency assumptions. Column 5 reinstates these adjustments and therefore increases expenditure by £251 million.

### Enhancements

Some of the proposed adjustments to enhancement costs are inconsistent with the required outputs but in other areas we propose to work with our industry partners to seek alternative sources of funding. Column 6 reinstates the adjustments to our projected enhancement expenditure which are not accepted. While we recognise the flexibility we would have to deliver the required outputs within specified funding, we are concerned that the proposed changes in the enhancement framework are not sufficient to enable us to manage a risk of this size.

### Property income

ORR's adjustments to the property income projections are very optimistic given likely planning issues and changes in the economic outlook. Our latest view of the realistic level of income is £126 million lower than assumed by ORR in its draft determinations. This difference in income is not shown in the expenditure variance in Figure 1.

### Regulatory and financial framework and assumptions

In addition to the expenditure and income projections underlying ORR's conclusions, the regulatory and financial framework and assumptions are clearly critical. While we welcome important elements of these proposals we have some remaining concerns. In particular:

- ORR's emphasis on the delivery of outputs rather than inputs is welcome but needs to be clarified and applied consistently;
- many aspects of the proposed regulatory incentive and financial framework are welcome but changes to the treatment of overspend and the ring-fenced fund are required; and
- the financial assumptions must be consistent with expected market conditions and the scale of the efficiency challenge to enable Network Rail to finance its activities.

### Conclusions

We are keen to complete this review and maintain the momentum of delivery as we go into CP4. However, in this response we conclude that there are very compelling reasons for ORR to make modifications to our revenue requirements so that we are able to deliver the required outputs.

The criticality of the key assumptions is clearly reinforced by the proposal that we raise unsupported debt. We believe that the possibility of unsupported debt is both an indicator of the success which has been achieved to date and a key enabler for our continuing success. As well as creating a "hard budget constraint", however, this change places much greater significance on ORR's duty not to make it unduly difficult for Network Rail to finance its activities.

This is the first time the new periodic review process has been tested following the Rail Review and we believe the requirement for government to specify its required outputs and funding available has been helpful. Clearly, it remains for ORR to assess the level of funding Network Rail requires to deliver specified outputs and whether this is affordable within the overall industry-wide funding specified by governments. We rely upon ORR as the independent regulator to reach conclusions which are evidence-based, reasonable and realistic as well as challenging.

At the outset of the current periodic review we noted that the review provided a great opportunity for the industry as a whole to build on the success which it had achieved over the last few years. We remain convinced that this opportunity can be realised. Addressing the concerns explained in this response would enable us to work with the rest of the industry to improve railway safety, performance, capacity and efficiency over the next control period whilst also developing robust and affordable longer term plans for how we can continue to provide an ever better service to railway users.

The key concerns outlined above are summarised in Figure 2 and explained further in the remainder of this summary. Our full response contains details and evidence in support of these concerns. In some areas we have also arranged additional meetings with ORR to explain our plans and the rationale behind them.

**Figure 2 Our key concerns with the draft determinations*****The 2009/10 start point***

- Achieving our existing projections for operating and maintenance costs in the first year of the next control period is already a major challenge and for ORR to assume a lower starting point is unrealistic

***The efficiency profile***

- Critical elements of ORR's benchmarking are flawed and excessive reliance is placed on the results
- ORR asserts that unit cost efficiency declined significantly following Hatfield and it wrongly implies that this could have easily been reversed without compromising outputs
- The pace of change required to deliver our plans is already highly ambitious given what has been achieved to date and given the other improvements which are expected over the next few years

***Efficiency enabling investment***

- Substantial improvements in efficiency in the next control period and for the longer term require investment in people, processes and technology which need to be funded through the review

***Other scope adjustments***

- The basis for some of ORR's proposed adjustments to renewal volumes is flawed and double counts scope efficiencies which are also included in its top down efficiency assumptions

***Enhancements***

- Some of the proposed adjustments to enhancement costs are inconsistent with the required outputs but in other areas we propose to work with our industry partners to seek alternative sources of funding

***Property income***

- ORR's adjustments to the property income projections appear very optimistic given likely planning issues and changes in the economy

***Regulatory and financial framework and assumptions***

- ORR's emphasis on the delivery of outputs rather than inputs is welcome but needs to be clarified and applied consistently
- Many aspects of the proposed regulatory incentive and financial framework are welcome but changes to the treatment of overspend and the ring-fenced fund are required
- The financial assumptions must be consistent with expected market conditions and the scale of the efficiency challenge to enable Network Rail to finance its activities

**Achieving Network Rail's existing projections for operating and maintenance costs in the first year of the next control period is already a major challenge and assuming a lower starting point is unrealistic**

During CP3 we have achieved substantial cost reductions while delivering significant improvements in performance and asset condition. In the first four years of the control period, we have achieved operating and maintenance cost efficiency savings of 28 and 31 per cent respectively. Both of these are a little ahead of ORR's targets. Overall, we have at least delivered the required outputs while improving asset condition within the available funds. In doing so, we have achieved unit cost

efficiency savings in renewals of 18 per cent, which is clearly significant but less than ORR's target.

After the rapid progress at the start of the control period, the rate of progress has slowed significantly as it becomes more difficult to deliver further cost savings. Some costs are rising significantly in real terms. For example, utility costs have increased during 2008/09 by more than £5 million.

Despite these cost pressures, we still believe that we will be able to reduce total operating and maintenance expenditure to £1,810 million (in 2006/07 prices) in 2009/10 while continuing to deliver improved outputs. This is consistent with the SBP update.

ORR identified that we had incorrectly included business interruption insurance costs in our operating costs. We agree with this and have reduced operating costs by £25 million. However, this is more than offset by other changes including the potential additional cost of standardising maintenance terms and conditions. We have also made some changes to the classification of costs between maintenance and operating costs.

Our plan for operating and maintenance expenditure in 2009/10 is based on achieving underlying cost savings of 3.5 per cent after allowing for the above adjustments and increases in maintenance activity.

This plan includes maintenance cost savings of 4.3 per cent. However, this will be almost completely offset by the impact of standardising maintenance terms and conditions and activity volume increases, including the increased cost of maintaining the West Coast Main Line following introduction of the new timetable.

The 2009/10 plan for operating costs includes savings of 2.5 per cent. After taking account of the limited potential for savings in insurance, pensions and signallers, however, we will need to realise cost savings of 4.3 per cent to achieve our plan for overall operating costs.

We explained in the SBP that the underlying cost drivers and scope for efficiency improvement vary considerably for different elements of our operating costs. The opportunity to achieve significant savings in the costs of insurance, pensions and signallers is limited. We have recently agreed insurance cover on what we regard as very favourable terms for the whole of CP4. Pension contributions are expected to increase as employees transfer from the defined contribution scheme after five years service and the number of signallers required to operate the current infrastructure is predominantly fixed. There are significant uncertainties in our pension costs as an actuarial valuation of the defined benefit scheme has yet to be completed and we are introducing a new scheme based on career average earnings.

In its draft determinations ORR assumed that we could reduce operating and maintenance costs to £1,748 million, based on efficiency savings of 3.5 and 5.0 per cent respectively. To achieve this we would need to reduce costs by an additional 3.3 per cent in 2009/10 on top of the planned savings outlined above.

Recognising that there is limited scope for savings in insurance, pensions and signallers, ORR's assumptions imply that we would need to achieve total savings for both maintenance and the rest of our operating costs of more than eight per cent compared to our current plans (after taking into account the reclassification from maintenance to operating costs). As over 60 per cent of these operating costs are people related, this is an unrealistic level of savings to be achieved next year, not least because of the lead times and implementation costs.

In our view it is therefore unrealistic for us to reduce our total operating and maintenance costs in 2009/10 below our current projection of £1,810 million (in 2006/07 prices).

### **Critical elements of ORR's benchmarking are flawed and excessive reliance is placed on the results**

ORR's analysis of the efficiency gap relies heavily on econometric and other benchmarking of Network Rail mainly in comparison with other European railways. Based on this analysis ORR has concluded that there is a substantial efficiency gap between Network Rail and the upper quartile of comparator railways (31 per cent for maintenance and 36 per cent for renewals). ORR claims that its econometric models "are robust, both statistically and from an engineering perspective". We do not agree that this is the case.

We have openly acknowledged that there is scope for substantial improvement across the business and this is reflected in our submissions. However, we believe that the scale of the gap identified by ORR lacks credibility. ORR would need to have great confidence that the models are correct for it to justify its conclusions based on these models. We do not believe that such confidence can be justified.

Our assessment of ORR's benchmarking has been informed by further independent assessments of ORR's analysis carried out by LECG and Horton 4 Consulting. They have both concluded that there is a huge range of uncertainty in the results of the econometric analysis.

The econometric analysis relies upon the UIC "Lasting Infrastructure Cost Benchmarking" (LICB) dataset. In our view analysis of the LICB data is useful and it should continue to be developed in future. However, we have

Network Rail's response to ORR's draft determinations



consistently stated that it cannot be relied upon to provide a robust assessment of an efficiency gap.

Because of inadequacies in the data, the preferred econometric model requires a bespoke adjustment to the software in order to produce any efficiency estimate at all. It is unreasonable to adopt the results from such a model without allowing for a significant degree of uncertainty.

ORR has not given due consideration to the evidence and analysis that we have put forward which challenges its analysis and results. Consequently, ORR has dismissed our challenges to its analysis without adequate justification. For example, an important factor affecting international comparisons is an understanding of whether the railways involved are investing at the levels of renewal activity that are sustainable given the age and condition of their networks.

ORR has assumed that, on average, other railways are in steady state. This is a critical assumption for which ORR has provided no data or evidence. It has dismissed the arguments presented by BSL that there are significant differences in the condition of European railways and the level of investment required to achieve steady state. ORR's analysis also contains results that have not been adequately explained, with some of the statistical relationships not supported by a logical engineering explanation.

While ORR has included some adjustments for structural factors in the models, these have not taken fully into account the differences between each country. For example, the models do not use any data relating to asset condition, train performance or engineering access arrangements and does not attempt to address legislative and environmental factors. Omitting these variables introduces bias in the estimates of the model. We do not believe that it is reasonable for ORR to rely on analysis that disregards critical parameters.

Other key parameters relate to currency exchange rates and changing costs over time. To convert each railway's costs to a common currency, the Purchasing Power Parity exchange rate has been used. OECD urges caution when using these rates as they may not be appropriate for specific industries. The time parameters also do not appear realistic as projecting the analysis forward to the end of CP4 suggests that we would be able to reduce costs by 80 per cent. This undermines the credibility of the

assumptions used in the analysis. There are other explanatory variables that have been excluded and a range of other influences, including legislative and environmental factors, that have not been considered at all.

While we recognise that the LICB data shows a significant gap in costs, ORR's analysis is not sufficiently robust to provide conclusions on Network Rail's relative efficiency. A more plausible explanation for ORR's results is that a significant proportion of the alleged differences in efficiency are due to some of the other differences between railways. We are therefore surprised that ORR has chosen to attach such weight to its analysis.

Our concerns are reinforced by the UIC in its September 2007 report which summarises the results of the last ten years of LICB benchmarking. It states that further factors (such as safety, asset condition and train performance) need to be introduced into the analysis to enable a rounded assessment. Until robust data for these factors is available, it will not be possible to understand fully the extent to which some countries are achieving lower costs without an adverse impact on outputs.

ORR carried out its own study of international best practice techniques and initiatives. It subsequently commissioned RailKonsult to analyse the potential savings that could be achieved from these potential initiatives. Many of these initiatives are already reflected in our plans such as partial renewal of switches and crossings. However, there are a number of proposals that we would not be able to implement as they are not consistent with other policies, or cannot be implemented for technical reasons. In assessing the potential initiatives, RailKonsult did not fully assess the business case for each proposal and has therefore taken little or no account of the potential cost of implementation. The potential savings are therefore overstated.

There are a number of areas where we are already leading the world in the development of best practice. Examples include the use of laser surveying techniques, automated video recognition technology for sleeper inspection and our research relating to the wheel-rail interface. Increasingly, other railways are looking to learn from Network Rail as well as us learning from them. This reinforces the view that the efficiency gap has been overstated.



We also note that ORR has not used its own conclusions consistently. The draft determinations conclude that the efficiency gap is 31 per cent for maintenance and 36 per cent for renewals, but then use a weighted average level of 35 per cent for both maintenance and renewals, on the basis that Network Rail can switch between maintenance and renewals to deliver outputs. This assumption is implausible but it increases the assumed efficiency savings for maintenance and results in a lower estimate of our required revenues because renewals are treated as capital investment. There are many maintenance activities that cannot be substituted and this approach would therefore imply reduced maintenance volumes.

Since publication of the SBP update, we have continued to carry out further benchmarking of track renewals productivity with other European railways. This work is ongoing but we expect it to provide further support for our view that the efficiency gap has been overstated.

ORR's analysis of the efficiency gap for operating costs relies heavily on Oxera's benchmarking improvements in real unit operating expenses achieved by other regulated businesses. As there are no companies which are directly comparable with Network Rail, it is important that a representative range of comparators is considered. It appears, however, that Oxera excluded a number of the most relevant comparators from its selection process. These exclusions created an upward bias in its assessment of the rate of efficiency improvement.

In developing a range of efficiency improvements, Oxera has set aside companies that made particularly high or low efficiency gains to derive a central range. However, it has dropped more than 10 times as many companies from the low end of the range than from the high end of the range. This introduced a significant upwards bias in its assessment of the rate of efficiency improvement that could be achieved.

Our consultants, LECG, have corrected Oxera's analysis to remove these biases using a more representative comparator set and by setting aside the same number of companies from the high and low end of the range. As a result, LECG suggests that the range of annual efficiency gains achieved in other industries is very significantly lower than the level assumed by ORR.

ORR commissioned Inbucon to benchmark employment costs. It concludes that these are between 15 and 20 per cent above comparable market rates. This conclusion is inaccurate. The report separately analyses the costs of signallers, maintenance staff and management. The analysis of signaller and maintenance costs suggests that our costs are 18 and 35 per cent higher than benchmark respectively. This incorrectly treats overtime as a fixed cost of employment. Taking this and some other errors into account, signaller costs are no higher than the benchmark. For management costs, Inbucon concludes that our costs are consistent with benchmark. We therefore do not believe this analysis provides any evidence to support ORR's efficiency assumptions.

We also commissioned benchmarking of our finance and human resources functions which concluded that their costs were broadly efficient. ORR has made no reference to these studies in its draft determinations.

In conclusion, the benchmarking evidence upon which ORR appears to rely for its assessment of the efficiency gap is flawed and selective. It significantly overstates the actual gap. Given the range of uncertainty we are particularly surprised that ORR has adopted figures which appear to be at the high end of the range implied by this analysis.

### **ORR asserts that unit cost efficiency declined significantly following Hatfield and it wrongly implies that this could have easily been reversed without compromising outputs**

ORR's analysis of potential efficiency savings appears to be based on the assumption that there was a significant reduction in efficiency in the period following Hatfield. The implication of this assumption appears to be that the apparent unit cost increases could easily have been reversed in the subsequent years. To the extent that this has been achieved, this then appears to imply that little has yet been done to address any inefficiencies which were present before Hatfield. From this it appears to be implied that Network Rail is at a similar stage in development to utilities shortly after they were privatised and that very substantial efficiencies can therefore be achieved. This has been referred to as the "reset hypothesis".

Our SBP provided substantial analysis which demonstrated that most of the expenditure

increases in the period following Hatfield could not be described as reduced unit cost efficiency. As far as we are aware ORR has not addressed this evidence in its draft determinations. Moreover, ORR appears to have presented no evidence of its own in support of its underlying assumption. Despite the lack of evidence, it appears that this assumption has been a very significant factor in ORR's view of the potential scope for efficiency savings.

With regard to maintenance and renewals expenditure, there were significant increases in the volume of maintenance and renewal activity rather than unit costs. Key factors that contributed to these increases included increased activity volumes to improve asset condition as volumes were at unsustainably low levels before Hatfield. Higher volumes were also required to manage the impact of growth in traffic during CP1 and CP2. Prior to Hatfield, it appears that these volumes had been artificially depressed, for example, because of the largely fixed price maintenance contracts that were put in place in anticipation that traffic levels would decline. Coincidentally these contracts were coming to an end at around the time of Hatfield.

ORR's econometric analysis also implies that Railtrack was more efficient in the years before Hatfield than Network Rail is today. However, it is now well known that levels of maintenance and renewal activities were unsustainably low. It is also acknowledged that considerable improvements have been made in recent years. This should raise major doubts about the robustness of ORR's analysis.

We also provided analysis of the increase in operating costs in the SBP. Again, ORR has not taken this into account in assessing the potential for efficiency savings in CP4. Its assessment relies on analysis of the improvements achieved by other utilities and, critically, the assumption that the 1995/96 level of Railtrack's costs at privatisation is an appropriate baseline. The use of 1995/96 as a baseline is fundamentally flawed and effectively says that all of the increase in operating expenditure post-Hatfield was incurred inefficiently. These cost increases were not simply a result of Hatfield and have not been shown to be inefficient.

Increases in engineering resources, pension costs and insurance costs alone increased annual costs by around £190 million. Engineering resources were increased by around 500 people to reverse inadequacies in asset management following privatisation – this was strongly

supported by ORR at the time and has directly contributed to the improvements in asset condition, safety and train performance during CP3. The increase in pension costs followed a pension contributions 'holiday' which ended following the actuarial valuation in 2001. The increase in insurance costs was a result of Railtrack's claims record and also wider changes in the insurance market such as impact of the 9/11 terrorist attacks.

In addition, there have been other cost increases including the introduction of mobile operations managers to improve response to delay incidents, resourcing of additional responsibilities transferred to Network Rail, such as developments of RUSs and industry performance reporting, and additional signalling costs as a result of increased traffic. Network Rail also had to introduce a 35 hour week which Railtrack had negotiated but not implemented.

While it is difficult to quantify these precisely, we estimate that the overall impact of these factors alone has been to increase annual operating costs by at least £220 million compared to 1995/96.

In conclusion, we believe that if ORR had taken proper account of the underlying reasons for past changes in expenditure, its view of the efficiency gap would have been substantially reduced. This therefore requires serious consideration before ORR reaches its final determination.

**The pace of change required to deliver Network Rail's plans is already highly ambitious given what has been achieved to date and given the other improvements which are expected over the next few years**

ORR has assumed that we can achieve annual savings of 3.5 and five per cent in operating and maintenance costs throughout CP4. As we stated above, we will not be able to achieve significant annual savings in insurance, pensions and signaller costs which account for around 40 per cent of our operating costs. Reducing costs in line with ORR's draft determinations would therefore require us to deliver annual savings of over seven per cent in other areas over the final four years of CP4. This is double the overall rate assumed by ORR and it has given no evidence to suggest that this is realistic. This rate of change is also out of line with assumptions made by other regulators.

ORR appears to imply that, as we have achieved large savings in the early years of CP3, we should be able to do so again. This ignores the fact that improvements inevitably become more difficult and is clearly inconsistent with evidence from ORR's own advisers that this is indeed the case.

Our own plan assumes that the pace of efficiency improvement would continue to diminish through CP4. We have acknowledged that it is more difficult to assess the potential for efficiency improvement through bottom up analysis towards the end of the next control period. Our plans therefore include an element of "stretch" in each year and we will need to continue to challenge ourselves on what can realistically be achieved, particularly in these later years. However, we believe that the level of stretch implied by ORR is unrealistic. Moreover, it would be wrong for the company to accept more challenging targets in the later years of the control period if this is on top of assumed savings for the early years that are regarded as unrealistic. This is because any shortfall in the early years would not merely eat into the proposed risk buffer but it would also dramatically increase the need for savings which would need to be delivered later simply to get back on target.

This view is supported by the results of further work to identify how we can achieve operating cost savings over the remainder of CP4. This analysis confirms that there is still a significant challenge to identify how we can deliver the cost reductions included in the SBP. It will require a huge level of management commitment to deliver the savings that we have proposed while also achieving the required improvements in safety and performance together with delivery of the enhancement programme to provide increased capacity.

ORR's draft determinations for operating costs were informed by a study by Winder Phillips, which reviewed the opportunity for savings in the Operations & Customer Services function (including signallers). The report claimed that we could achieve specific annual savings totalling £41 million. We have updated our own assessment of the potential for savings. We have identified potential savings totalling £34 million by the end of CP4 but these savings are likely to be offset by real wage increases.

We recognise in principle ORR's arguments relating to long term efficiency improvements from "frontier shift". Our primary concern is the way in which this is combined with other

assumptions to produce a result which is implausible in terms of what would need to be achieved in a finite period of time.

Finally, when considering the realistic pace of change it is essential that ORR considers the overall changes required and not just the reduction in costs. As well as reducing cost we are expected to improve safety, reliability and availability while delivering major investment and becoming more responsive to customers. In addition, ORR has itself highlighted the challenge of managing change in a way that does not undermine safety.

In conclusion, regardless of our concerns about the plausibility of ORR's assessment of any efficiency gap, the proposed pace of change is unrealistic. ORR appears to have made little attempt to understand in practice what the proposed changes would mean in order to assess whether these can be achieved. The proposed changes would appear unrealistic in any industry and these are compounded by some of the complexities of the rail industry which can cause delay in implementing change.

### **Substantial improvements in efficiency in the next control period and for the longer term require investment in people, processes, and technology which need to be funded through the review**

The delivery of significant efficiency savings requires investment in technology or other enabling activity to deliver ongoing savings in operating costs. However, in its assessment of the required levels of activity ORR has excluded a number of the enabling investments that were in our SBP. This is in addition to the investments that we had excluded from our plan pending further analysis of their business cases.

ORR has reduced allowed expenditure on corporate offices. The allowed spend is insufficient even to bring our existing portfolio up to standard, and would not enable the proposed investment in alternative sites which both delivers savings in corporate office costs and enables wider efficiency savings to be achieved.

A number of IT projects totalling £138 million have been excluded, largely on the basis that projects are at an early stage of development so there is considerable uncertainty in their scope and cost. Many of these investments are fundamental to improvements in asset

management and improved operations. In some cases, train operators also depend directly on the relevant systems.

We recognise that the level of justification for some schemes that we provided in support of the SBP was insufficient and we have therefore provided ORR with further information, clarifying the scope of activity and the benefits that will be generated.

In addition, any incremental efficiency savings beyond those included in the SBP would almost certainly require further investment as well as provision for redundancy costs. We included some allowance in our plan for CP4 on the basis that much of the cost reduction could be achieved through reallocating maintenance staff to investment projects and staff turnover. ORR has not included any additional expenditure, although it is unlikely that we would be able to deliver significant additional enabling schemes to deliver benefits in 2009/10. As a result the draft determinations do not constitute a complete package as the proposed efficiency savings are dependent on investment that is not funded.

ORR has proposed that such investments could be addressed through the investment framework with justified expenditure being logged up to the RAB. We welcome ORR's confirmation that this would include investment required to deliver the efficiencies and other improvements assumed in the periodic review. However, it is important that appropriate funding is provided in the final determinations where we demonstrate now that the case for this investment is well developed. In addition, we require further clarification on the criteria which ORR would apply for logging up this type of investment so that we are able to deliver the required improvements and plan our business with a reasonable degree of assurance.

### **The basis for some of ORR's proposed adjustments to renewal volumes is flawed and double counts scope efficiencies which are also included in its top down efficiency assumptions**

In the draft determinations ORR made a number of adjustments to the levels of renewal activity set out in our SBP update (in addition to those relating to IT and corporate offices which were discussed above).

We have previously emphasised that the level of civils expenditure is effectively a policy choice.

We accept that ORR's proposed deferral of work in this area can be managed without an adverse impact on outputs in CP4 even though longer term whole-life costs are likely to be increased. We also accept the reduction in electrification renewals due to the inadvertent double counting of provision for the grid supply point at Elvanfoot.

However, we believe that the other reductions proposed by ORR, notably those relating to track, are inappropriate. For example, ORR has reduced track renewal volumes by five per cent, largely based on the initial output of a report indicating that some track renewals were being over specified or carried out prematurely. The final report has now been completed and this indicates that there is in fact more likely to be under-specification.

The reduction in volumes should also have been taken into account by ORR when assessing the potential for future efficiency savings. ORR's headline efficiency assumptions are based largely on top down comparisons with the overall efficiency improvements or expenditure levels achieved by other businesses. These comparators will therefore include scope efficiencies as well as unit cost efficiencies. By making scope reductions and applying top-down efficiency assumptions, ORR has effectively double counted some of the potential efficiency savings.

This point is further reinforced by the inconsistent approaches adopted for maintenance and renewals. ORR has used a single efficiency assumption for maintenance and renewals, but has applied scope reductions to renewals while (correctly) making no (additional) scope adjustments to maintenance.

Furthermore, we have already included a number of scope efficiencies within our planned renewals volumes as the calculations reflect a change in policy or practice from current methods. These embedded scope efficiencies are in addition to our annual efficiency improvement. The most notable example is the substantial move towards partial renewal of switch and crossing units rather than full renewal, reflecting the development and successful trialling of new equipment and methods. ORR does not appear to have taken this into account in development of its efficiency assumptions.

ORR should therefore reinstate these proposed adjustments to the renewal volumes in our plan, particularly given its proposed approach to setting efficiency targets. In addition, it should



either adjust its top down efficiency target to take account of scope efficiencies which are already embedded in our plans or further increase volumes so that these are consistent with current practices.

**Some of the proposed adjustments to enhancement costs are inconsistent with the required outputs but in other areas we propose to work with our industry partners to seek alternative sources of funding**

We will continue working with operators and other stakeholders as we develop our CP4 delivery plan. In particular we have written to passenger and freight operators explaining how we propose to consult them on our plans following publication of the final determination.

ORR proposes to remove a number of entire schemes from the plan. We believe that enhancements linked to renewal schemes often provide the most affordable and least disruptive way of improving the railway. However, we recognise that some of the excluded schemes may not strictly be required to deliver the required outputs. This also applies to the significant reduction in costs for the enhancements around Leeds and Manchester. If necessary, we will work with other stakeholders to establish whether individual schemes can be funded from other sources.

There have been significant reductions in scope to a number of other projects, largely based on analysis carried out by Arup. We consider that much of this analysis is not robust. For example, the proposed reduction in platform lengthening costs has been based on a flawed assessment of physical platform lengths rather than the actual operating lengths of each platform. The costs of Glasgow Airport Rail Link have also been reduced by £38 million. We have continued to work with Transport Scotland to develop this project and our latest cost estimate indicates that ORR has overestimated this cost reduction.

We recognise the risk of delayed planning consent for projects on the West Coast Main Line. Delivery of these schemes is important for the continued increase in capacity. If planning consent can be achieved in CP4, we would expect to be fully funded through the RAB for this work.

ORR has applied additional efficiency savings to some of the enhancement costs that we included in the SBP on the basis that the activities are repeatable, similar to renewals activities. While we recognise that a number of these activities are similar to renewals, many of the projects are at an early stage of development. There are therefore considerable uncertainties about the scope and cost of work, which must be reflected in the costing.

The proposed fund to support development of schemes to be delivered in CP5 has been reduced by 80 per cent. Requiring us to seek additional funding as we develop schemes during CP4 will introduce further bureaucracy and risks delaying development of further capacity enhancements that will be required during CP5.

We welcome ORR's support for the move towards a seven day railway and the inclusion of incremental funding to achieve this. ORR has reduced the proposed investment by £130 million, while setting a regulatory output for improvements in the amount of disruption that engineering work causes to train services. This is a new measure and there remains considerable uncertainty about the realistic trajectory that can actually be achieved. ORR will therefore need to assess whether the availability target is reasonable based on actual results as CP4 progresses.

ORR has reduced the incremental investment to achieve the required performance improvements by £90 million. ORR has assumed that we can achieve greater performance improvements as a result of reduced asset failures and some of these incremental investments. Our analysis suggests that ORR's assumptions are optimistic and do not recognise the uncertainties in improving performance to an unprecedented level particularly in relation to the new measure of severe delay.

Our plans do not currently include allowance for potential future electrification. However, we are doing extensive work on the business case for this as part of the programme of Route Utilisation Strategies and we expect to conclude the current phase of work next spring. It is important that the supply chain should not be expected to ramp-up the amount of work in this area in an unrealistic timescale and if we are going to undertake significant electrification in CP5 this will need to begin in CP4. Over the long term and taking account of the overall industry benefits we would expect this to be self-funding and there would also be significant non-financial benefits.

Following the periodic review, we would therefore propose to discuss with ORR and government how any efficiently incurred incremental costs can be funded through the RAB in accordance with the terms of the investment framework.

### **ORR's adjustments to the property income projections appear very optimistic given likely planning issues and changes in the economy**

In its draft determinations, ORR accepted our forecasts of property income and hypothecated gains. However, it included additional income of £59 million and hypothecated gains of £146 million relating to the developments at Euston and Victoria. ORR recognised the significant risk that the benefits from the Euston and Victoria projects income may not be realised in CP4, but considered that our overall property income projections were conservative.

Since the SBP update was submitted the economic outlook has changed significantly and in the current context our previous projections of property income look highly optimistic (rather than conservative). We have reviewed our forecasts for property income with the independent consultants, Lambert Smith Hampton. Given the economic outlook, we believe that there is a significant risk that our property income will be around £67 million less than the SBP update. This reduction includes the potential specific rental income losses highlighted in the SBP update that have now materialised, and are expected to reduce annual income by £10 million. In addition, we expect hypothecated gains to be around £41 million less than the SBP update due to changes in market conditions.

These changes mean that the draft determinations are now far too optimistic in this area. Given the downturn in the property market and the significant risks around the timing of the Euston and Victoria projects, it is also inappropriate to include the benefits (which comprise income of £59 million and hypothecated gains of £146 million) from these projects in the draft determinations. If these cash gains are included in the target, it will risk creating an incentive to seek cash benefits at the expense of potentially more beneficial hypothecated gains. We therefore continue to believe that it is inappropriate for ORR to assume benefits from Euston and Victoria in the final determination.

### **ORR's emphasis on the delivery of outputs rather than inputs is welcome but needs to be clarified and applied consistently**

We welcome the clear statements of principle in the draft determinations that the CP4 regulatory regime is intended to be output-based. It is important that there is a clear understanding that the funding is provided to deliver the required high-level outputs and not to deliver specific inputs such as activity volumes. It is critical that we have the flexibility to deliver these required outputs in the most efficient manner, and that we are able to take account of changes in circumstances or knowledge during the control period. The importance of this principle was confirmed by ORR at the seminar it held for the industry on its draft determinations.

We recognise the need for ORR to monitor a range of asset condition measures to provide assurance that the high level outputs are being delivered in a sustainable manner taking account of any whole-life and whole-system cost implications. We also accept that it is appropriate to monitor activity against planned volumes at a high level and for us to explain any major variances.

However, we believe there is some inconsistency and ambiguity within the draft determinations around whether the focus will really be on the delivery of outputs rather than inputs. Some sections of the draft determinations seem to imply a high degree of monitoring of inputs, such as activity volumes, and of intermediate outputs, such as asset condition measures. There also appears to be a presumption against changing the way in which outputs are delivered. We are concerned that the draft determinations could be interpreted as specifying the levels of activity that are to be delivered during CP4.

We are also concerned that the reporting and monitoring process should not generate a lot of unnecessary cost and bureaucracy that distracts from the core job of delivering the outputs as efficiently as possible. It is important that the final determinations provide further clarity on the primacy of outputs and establish appropriate guidelines around the monitoring of other measures including the way in which variances from our plans will be assessed.

We welcome a number of the related changes to our licence conditions that have been proposed. In particular, we support the purposive (or principle-based rather than rules-based)

approach provided that we have clarity about the outputs that are required. We are concerned, however, about the requirement to publish asset policies which could undermine progress in an area where we have been very proactive and transparent in the last few years. It is not clear to us what problem ORR is seeking to solve with this proposal.

**Many aspects of the proposed regulatory incentive and financial framework are welcome but changes to the treatment of overspend and the ring-fenced fund are required**

We welcome many of the proposed changes to the regulatory incentive and financial framework. However, there are some areas where we still have major concerns and other areas where important details have not yet been resolved.

We particularly welcome ORR's support for Network Rail raising unsupported corporate debt (i.e. without reliance on the government indemnity). We have continued to develop our plans in this area and we are discussing these with ORR as well as with the rating agencies. Given the current market conditions, we are considering whether it would be preferable to adopt a gradual approach. Under this approach we would still intend to reach a position where all incremental debt is unsupported within a few years. This would maintain the incentive benefits highlighted by ORR but would be less sensitive to current market conditions.

We welcome the proposal that a proportion of any outperformance against our efficiency targets should be shared with operators. We also broadly support ORR's conclusions on charging (although we have concerns about the efficiency assumptions which are incorporated into these charges) and the proposed volume incentive (although we are surprised that this incentive is to be reduced so significantly). In our view, the objective in finalising these proposals should be to gain an improved alignment of interests between Network Rail and its customers.

While we support the proposal that actual efficient capital expenditure should be added to the RAB we are concerned that the criteria are too restrictive. As noted above, the treatment of enabling investment needs to be clarified. In addition, we have concerns about the treatment of enhancement risk and input price risk as explained below.

ORR has proposed that Network Rail should bear the first £75 million of any overspend on enhancements and that 75 per cent of any further overspend in this area should be added to the RAB provided that this is not manifestly inefficient. ORR has agreed to provide further clarification on how it would determine whether expenditure had been manifestly inefficient. Subject to this clarification, we would accept that 75:25 split provides an appropriate balance between risk and incentive in this area. However we do not agree that it is appropriate for the company also to bear all of the first £75 million of risk since this represents a very significant proportion of the £200 million annual risk buffer proposed by ORR. We are also surprised that ORR has proposed doubling the level of Network Rail risk which was agreed with DfT for Thameslink Key Output 1.

With regard to renewals, ORR proposes that any overspend relating to unit costs including changes in input prices should be disallowed. We accept that this is reasonable for operating and maintenance costs where Network Rail has more control over the costs. However, this could be a major issue for renewals where a larger proportion of our costs are driven by worldwide commodity markets or contractor markets. We fully recognise that Network Rail has a role to play in managing the impact of these risks. However, we do not believe it is appropriate to rely on the re-opener provisions or the risk buffer to deal with these risks.

As a not for dividend business, all Network Rail's profits are potentially available for reinvestment in the railway to provide improved services for users. In this context, we believe it is inappropriate for ORR to assume that the annual risk buffer is used to reduce our debt particularly since this assumes that the risks do not materialise. Moreover, we are concerned that investors may not be satisfied that investments which are funded by the ring-fenced fund can be deferred without regulatory sanction if this is necessary in order to maintain the relevant financial ratios. In our view, these investments should be regarded as an indication of success in the same way as dividends in other businesses. We will continue to discuss this matter with ORR.



## **The financial assumptions must be consistent with expected market conditions and the scale of the efficiency challenge to enable Network Rail to finance its activities**

Since the publication of the draft determinations, we have had constructive discussions with ORR in relation to its financial assumptions. We have provided a separate submission to ORR which sets out our current view on these assumptions. Taken together with ORR's draft expenditure allowances (which we do not accept for the reasons explained elsewhere in this response) our financial assumptions would result in a slight reduction in our revenue requirements compared to ORR's draft determinations. We will continue to discuss these assumptions with ORR with the objective of reaching a conclusion, on issues such as the level of the FIM fee, which is both realistic and affordable.

Given current market conditions, we believe that ORR agrees that some of the assumptions underlying its draft determinations look optimistic, at least in the short term. Unduly optimistic assumptions would either result in a settlement which is unfinanceable or which would be likely to require an early interim review unless market conditions improve considerably more rapidly than is currently expected. This would obviously not be in anyone's interests and ORR clearly recognises this.

ORR also emphasises that its periodic review determinations must be considered as a package. We agree. In this context it is also necessary to consider ORR's duty under section 4 of the Railways Act not to make it unduly difficult for Network Rail to finance its relevant activities. The significance of this duty is further reinforced by the proposal that Network Rail should raise unsupported debt. It is therefore essential that the overall package proposed by ORR is financeable. As well as the financial assumptions this will clearly depend on the overall regulatory framework and the extent to which the business is perceived to be more or less risky than other regulated businesses. Most importantly it will also depend on whether the assumed improvements in efficiency and other outputs are regarded as realistic.

ORR has previously acknowledged the inter-relationship between the allowed rate of return and the assumed rate of efficiency improvement. We are therefore surprised that ORR appears to have combined extremely challenging efficiency

improvements with a low rate of return and risk buffer. For example, ORR has proposed a risk buffer which is less than four per cent of Network Rail's annual expenditure. A one year delay in achieving ORR's efficiency targets for operations, maintenance and renewals would eliminate most of the annual risk buffer proposed by ORR, leaving little further allowance for risks associated with enhancements or financing costs.

**We are keen to conclude the periodic review process as soon as possible after ORR's final determinations. However, this requires significant changes to ORR's draft determinations. Concluding the review will enable us to focus the efforts of the business on delivering what will undoubtedly be an extremely challenging settlement. At the same time we aim to work closely with the rest of the industry on the development of longer term plans for affordable improvements in rail services.**

## 1 Accountability and outputs

### Overview

We welcome the clear statements of principle in the draft determinations that the CP4 regulatory regime is intended to be output-based. It is important that there is a clear understanding that the funding is provided to deliver the required high-level outputs and not to deliver specific inputs such as activity volumes. It is critical that we have the flexibility to deliver these required outputs in the most efficient manner, and that we are able to take account of changes in circumstances or knowledge during the control period. The importance of this principle was confirmed by ORR at the seminar it held for the industry on its draft determinations.

We recognise the need for ORR to monitor a range of asset condition measures to provide assurance that the high level outputs are being delivered in a sustainable manner, taking account of any whole-life and whole-system cost implications. We also accept that it is appropriate to monitor activity against planned volumes at a high level and for us to explain any major variances.

However, we believe there is some inconsistency and ambiguity within the draft determinations around whether the focus will really be on the delivery of outputs rather than inputs. Some sections of the draft determinations seem to imply a high degree of monitoring of inputs, such as activity volumes, and of intermediate outputs, such as asset condition measures. There also appears to be a presumption against changing the way in which outputs are delivered. We are concerned that the draft determinations could be interpreted as specifying the levels of activity that are to be delivered during CP4.

We are concerned that the reporting and monitoring process should not generate a lot of unnecessary bureaucracy that distracts from the core job of delivering the outputs as efficiently as possible. It is important that the final determinations provide further clarity on the primacy of outputs and establish appropriate guidelines around the monitoring of other measures, including the way in which variances from our plans will be assessed.

We broadly welcome a number of the related changes to our licence conditions that have been proposed. In particular, we support the purposive approach provided that we have clarity about the outputs that are required. We are concerned, however, about the requirement to publish asset

policies which could undermine progress in an area where we have been very proactive and transparent in the last few years. It is not clear to us what problem ORR is seeking to solve with this proposal.

### Structure of output specification and tolerances

We need to be clear on the relationship between the disaggregated outputs (and their status as reasonable requirements), the top-level regulated outputs and the enforcement regime. The achievement of outputs at a more disaggregated level is more challenging and this needs to be reflected in the establishment of reasonable requirements and the enforcement framework. The definition of aspirational elements also needs to be clearly understood by all parties.

Output measures are subject to statistical variability caused by random fluctuation and the accuracy of data measurement, and in previous periodic reviews ORR has confirmed that it would take account of appropriate statistical tolerances when assessing performance against a target. This issue is particularly important for the current review as targets are being set at a much more disaggregated level and so the degree of volatility will be higher. ORR should confirm in the final determinations that it continues to accept the principle of statistical tolerances during CP4 such that outputs that miss a target, but fall within an appropriate tolerance, would not be treated as a failure.

In previous periodic reviews ORR has also acknowledged that outputs may fluctuate over time. This fluctuation can lead to targets not always being achieved. Similarly the output may miss the target by a relatively small degree rather than falling “well short”. ORR should confirm in the final determinations that it continues to adhere to the principle that if we miss a target without exceeding a “well short” threshold this would not be considered as a failure to achieve an output.

### Safety

We agree with the risk based approach to the measurement of safety performance and the use of the Safety Risk Model. We will use the process for developing the rail strategic safety plan to capture train operator contributions to the achievement of the HLOS safety improvements specified by the Secretary of State.

## Train service performance

The output targets are consistent with our trajectories in the SBP update. However, in the SBP update we identified a number of uncertainties surrounding the delivery of these outputs, particularly the new cancellation and significant lateness (CaSL) measure. These risks include:

- the relationship between PPM and significant lateness is not fully understood and we will need to develop this understanding as an industry;
- the practical impact on operational behaviours of having targets for both PPM and significant lateness is also unknown; and
- the delivery of the CaSL targets relies heavily on TOC support as around 50 per cent of cancellations are caused by TOCs. The definition currently includes the consequences of service recovery action such as the use of diversionary routes and skip stopping. We need to avoid perverse behaviours created by the definition adopted being different to that adopted in the franchise agreements which excludes service recovery impacts.

Given these significant risks to delivery of the performance outputs, the reduced funding implied by the draft determinations is disappointing. Our analysis of the action plans necessary to achieve the performance outputs and the funding required recognised a range of risks and uncertainties including:

- some of the proposals are at a very early stage of development (as ORR acknowledges in the draft determinations);
- the benefits remain uncertain;
- contributions from train operators are not fully underwritten;
- the impact of the DfT's rolling stock plan for CP4; and
- the impact of Crossrail construction work during CP4.

The approach adopted in the draft determinations has effectively removed the provisions we included to reflect these risks and uncertainties by taking an alternative basket of interventions produced mechanically from the value for money model. The model is not robust

enough to take this approach and a degree of judgement is required given the uncertainties acknowledged by ORR.

ORR has reduced the incremental investment to achieve the required performance improvements by £90 million. ORR has assumed that we can achieve greater performance improvements as a result of reduced asset failures and some of these incremental investments. We believe that ORR's assumptions are optimistic and do not recognise the uncertainties in improving performance to an unprecedented level. We describe these concerns in more detail in Chapter 4.

We are proposing to issue a set of disaggregated performance outputs in our CP4 delivery plan. Our intention is that these should be used by ORR to judge a material under-delivery of performance at a TOC level. We are proposing to set these using the methodology outlined in the SBP update which would result in one breach per TOC on average every twenty years if under-delivery is only due to natural variation in performance. We strongly believe that the industry requires greater clarity as to how ORR will respond to under-delivery of individual TOC or sector performance targets.

We will also publish a set of TOC-level aspirational outputs consistent with our sector-level targets.

The trajectory we published in our SBP update for significant lateness and cancellations was based on an incorrect 2006/07 start position. When calculating the historic level of CaSL we used the franchise mapping that was in existence at the time and also included ScotRail in the regional number. As a consequence the absolute levels we forecast were incorrect. However, as the HLOS specifies a percentage reduction, the corrected trajectory still delivers the percentage improvement specified. The new trajectories are shown in Figure 1.1.

## Network capacity

We welcome the discretion provided to flex our plans to most efficiently meet the HLOS capacity specifications. It must be clear in setting a reasonable requirement that it is the delivery of

**Figure 1.1 Revised significant lateness and cancellations CP4 trajectory**

Per cent	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
Long distance	6.2	5.8	5.3	4.9	4.5	4.2	4.0	3.9
London & south east	2.6	2.3	2.3	2.3	2.2	2.1	2.0	2.0
Regional	3.2	3.0	2.7	2.6	2.5	2.4	2.3	2.3

the necessary infrastructure capacity and capability that we are accountable for. It is ultimately for train operators to deliver the agreed train service specification necessary to deliver the HLOS outputs.

We recognise that, although the HLOS capacity metrics are defined in terms of routes and services, we must also address station capacity. The draft determinations do not provide the funding we sought for a number of stations to address this issue.

Our response to ORR's assessment of the level of enhancement expenditure required to deliver capacity improvements is included in Chapter 4.

### Network capability

We welcome ORR's statement in Chapter 15 of the draft determinations that increased renewal expenditure as a result of unanticipated increases in traffic can be added to the RAB.

ORR has set out the key measures of network capability. We also consider that cumulative tonnage on each part of the network is a key measure of capability and we will monitor this through CP4.

### Network availability

We welcome ORR's support for the move towards a seven day railway and the inclusion of incremental funding to achieve this. ORR has reduced the proposed investment by £130 million, while setting regulatory outputs for reductions in the amount of disruption that engineering work causes to train services. These are new measures and there remains considerable uncertainty about the trajectories that can realistically be achieved.

ORR will therefore need to assess whether the availability target is reasonable based on actual results as CP4 progresses. We believe that ORR should confirm its intention to carry out such a review. Clearly, however, this should focus on whether the measure is working as intended rather than reopening the underlying principles.

We also have major reservations about the proposed measures both as a management tool and for communication with our customers. As part of the development of our balanced scorecard, we are considering alternatives which are more simple and intuitive.

The remainder of this section addresses the more detailed issues raised in the consultation document "PR08: Network availability and the

seven day railway" issued by ORR on 4 July 2008. Our comments are under three headings that correspond to the questions raised in the consultation paper:

- Possession Disruption Index – Passenger (PDI-P);
- Possession Disruption Index – Freight (PDI-F); and
- monitoring.

### Possession Disruption Index – Passenger

PDI-P measures the disruption caused to passengers by possessions, in terms of the extra journey time that the possessions impose. The measure is calculated from the same data that is needed to operate the template Schedule 4 regime, which compensates operators for revenue loss due to possessions. It therefore reflects the extent to which possessions are taken on busier or quieter routes, and the extent to which they are taken at busier or quieter times of the day or week.

We believe that the proposed approach to PDI-P, including setting a regulatory target based on a 2007/08 baseline, is appropriate. However, we have concerns about several aspects of the calculations that underpin the proposed target:

- the "enhancement weightings" (which measure the disruption due to enhancement projects, relative to the same spend on renewals);
- activity volumes used (maintenance, renewal and enhancement); and
- the model used by ORR to calculate the trajectory for the target.

We are also concerned at the level of risk around the target, and how ORR proposes to treat this during CP4.

### Enhancement weightings

ORR has outlined the role of enhancement weightings in establishing the CP4 trajectory for PDI-P. The weightings reflect the level of disruption of enhancement expenditure, relative to the disruption caused by an equivalent amount of renewals expenditure. These weightings have a significant effect on the PDI-P trajectory.

The weightings used by ORR in establishing the proposed CP4 trajectory were developed in a short period of time and provided in June this year. They were a subjective estimate of the amount of disruptive access required to deliver the CP4 enhancement schemes (relative to the amount required to deliver renewals).

However, the weightings did not take account of the location of enhancement schemes. A large part of the CP4 enhancement portfolio is aimed at increasing the capacity of some of the busiest parts of the network, and possessions at these locations will almost inevitably be much more disruptive than the same possessions (in terms of time of week and duration) at an “average” location on the network. We had understood that the location of enhancement schemes would be taken into account separately in the calculation of the target, but this does not appear to have been the case.

The effect of this can clearly be seen in the components of the proposed PDI-P trajectory. Our proposed enhancement spend in CP4 is not far short of our proposed renewal spend, and much of it is on schemes in very busy parts of the network, such as the Thameslink route, London Bridge, Reading and the West Coast Main Line. However, the enhancement component of the proposed PDI-P trajectory is only around 15 per cent of the renewal component. This does not seem plausible.

We therefore propose that the enhancement weightings should be re-estimated, based on the assumptions regarding TOC compensation costs in the budgets of the CP4 enhancement schemes. This would implicitly take into account not only the amount of access required to deliver the CP4 enhancement schemes, but also the locations at which the access is required.

### Activity volumes

The PDI-P trajectory clearly depends on the activity volumes assumed for CP4. We continue to believe that the maintenance and renewal activity volumes in our plan for CP4 are necessary and deliverable.

Regarding enhancements, the PDI-P trajectory proposed by ORR takes account only of the enhancements that ORR proposes to fund through the periodic review process. Our plan also contains approximately £2 billion of enhancements to be funded outside the review, including Crossrail, Transport Innovation Fund (TIF) schemes and schemes funded by third parties.

It is not clear how ORR proposes to treat PDI-P in relation to these schemes. A footnote on page four of ORR’s National Rail Review for 2008-09 Q1 explains that work associated with Crossrail is excluded from the trajectory as the project is not yet firmly scheduled. However, ORR has not indicated how it proposes to take account of

Crossrail once the work is firmly scheduled. It also makes no mention of schemes funded by TIF or by third parties.

Several approaches are possible. A target could be set now that includes the anticipated effect of these schemes. The target could then be adjusted once the impact of these schemes becomes clearer, or possessions associated with these schemes could be excluded from the measurement of PDI-P, or the measure could be normalised in some way for the volume of enhancement activity. Our provisional view is that while adjustments to the target might be practical for a very large scheme such as Crossrail, to adjust the target for a large number of smaller schemes (or to exclude them from the measure entirely) would be impractical. We propose to discuss this further with ORR.

### The PDI-P model

We have reviewed the model used by ORR to calculate the proposed PDI-P trajectory and there appear to be several errors. For example, the CP4 maintenance and renewals spend in the model appears to be significantly higher than we would expect; and the enhancement weightings appear not to be used, in that they do not have any effect on the output of the model.

We therefore believe that the model needs further validation before a CP4 trajectory can be calculated.

### Effect on the PDI-P trajectory

The National Rail Review for Q1 2008-09, recently published by ORR, referred to ORR setting Network Rail a target of a 17 per cent reduction in disruption by 2011/12, and a 37 per cent reduction by 2013/14. We presume that this referred to the PDI-P trajectory in the draft determinations. However, from the issues above it appears that this trajectory (and in particular the enhancement element of it) is not credible.

As an indication of the materiality of the issues that we believe remain to be resolved, Figure 1.2 shows an indicative CP4 trajectory that we have developed. It is based on a high level re-estimation of enhancement weightings, the inclusion of Crossrail and other TIF and third party schemes, and some high level adjustments to the PDI-P model to correct the errors described above.

We propose to work with ORR over the coming weeks to resolve these issues.



### Treatment of risk

There are significant risks associated with the introduction of a target for a measure which is both new and relatively complex, both in its definition and in the assumptions used to generate the target trajectory.

The large volume of enhancement activity in CP4 presents a particular risk, for several reasons:

- there is limited historical data on which to base the enhancement element of the metric, not least because the historical Schedule 4 data (on which the metric is based) excludes most of the impact of West Coast Route Modernisation, which was by far the largest enhancement activity in CP3;
- the enhancement weightings are subject to considerable uncertainty. To base these weightings on estimated TOC compensation costs is the best available approach. However, it is very difficult to estimate compensation costs accurately, particularly when detailed possession plans for many schemes have yet to be developed or are subject to change. In the context of overall scheme costs, this uncertainty is manageable, as compensation typically accounts for only a few per cent of total costs. In the context of setting a regulated output target purely for disruption, however, the effect of this uncertainty is very significant;
- many of the enhancement schemes in CP4 are still under development and so the precise timing of activity (i.e. the year of CP4 in which works take place) is subject to change; and
- we cannot yet be certain of the volume of schemes which, over the course of CP4, may be funded from sources other than the periodic review.

In the consultation paper, ORR highlights two factors that it claims provide significant protection for Network Rail against the risks associated with the new target:

- Stage 2 benefits (i.e. those from the incremental investment specifically funded in the Period Review) are assumed to be significant only in the last two years of CP4. The consultation paper implies that this is a conservative assumption; and
- ORR considers that the number of

possessions that we have projected is likely to be “at the top end of what is required”.

We do not believe that either of these factors gives any significant protection against risk.

The assumption that Stage 2 benefits are only significant in the last two years of CP4 is not conservative. Rather, it will take several years to put in place some of the necessary investments, such as infrastructure enhancements and changes to renewal processes and methods of working.

Regarding our projections of numbers of possessions, we believe that ORR is mistaken as to what these projections represent. We have estimated the number of possessions likely to be required on a number of routes, for some of the most disruptive maintenance and renewal activities, in each year of CP4. These estimates are based on relatively simple assumptions about, for example, the volume of work that can be achieved in a possession of a given duration, and how this will change over CP4 as a result of changes in working practices and access patterns.

The projections are therefore not intended as an accurate estimate of the total number of possessions in any given year. The actual number of possessions in any year could be significantly more or less than the projection. Rather, the key point about the projections is that they show how the number of possessions (and the mix of possession durations) is expected to change year-on-year during CP4. For example, the projections reflect the extent to which we plan to replace all-weekend blockades with shorter possessions.

It is these year-on-year changes, and not the absolute number of possessions, which determine changes in the projected PDI-P metric, because PDI-P is not measured in absolute terms but relative to a base year (2007/08). Even if the absolute number of possessions were “at the top end of what is required”, this does not affect the PDI-P projections and does not therefore give any contingency or protection against risk.

Figure 1.2 Indicative PDI-P trajectory

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
ORR trajectory	1.00	1.21	1.02	0.91	0.83	0.68	0.63
Indicative revised trajectory	1.00	1.15	1.42	1.21	1.01	0.82	0.76

We therefore believe that substantial risk remains around the PDI-P measure. We do not propose at this stage that the measure should be adjusted because of this. Rather, we propose that ORR should assess whether the target is reasonable based on actual results as CP4 progresses.

### Possession Disruption Index – Freight

PDI-F is a measure of the disruption caused to freight operators by possessions. It is based on the total number of hours of possessions on each section of the network, the sections being weighted according to the level of freight traffic.

We have a number of concerns about the target as proposed by ORR. In particular, we do not believe that introducing single line working (SLW) factors into the metric, as proposed by ORR, is a workable approach. As with the passenger metric, we also have concerns around:

- the freight-specific enhancement weightings, particularly as adjusted by ORR;
- activity volumes; and
- the model used by ORR to calculate the trajectory for the target.

We are also concerned at the level of risk around the target, and how ORR proposes to treat this during CP4.

### Single line working (SLW) weightings

ORR's consultation paper notes that the projection of PDI-F worsens over CP4, reaching 1.16 by 2013/14 under ORR's projections. This reflects the increase in overall possession hours under our plans.

However, the paper also notes that our CP4 plans deliver a number of benefits to freight operators that are not captured by PDI-F. These include an increase in the availability of single line working, increased availability of diversionary routes, and a more stable, consistent set of long term possession plans.

ORR has therefore introduced "SLW weightings" into the definition of the PDI-F measure to reflect the increased availability of single line working. These weightings are in effect estimates of the percentage of freight which can continue to run using SLW, even when the route is subject to a possession. These weightings vary from zero (on Liverpool St – Cambridge) to 75 per cent (on Edinburgh – Glasgow and the Brighton Main Line).

ORR proposes that, over the course of CP4, we should (in consultation with the industry) make changes to the SLW weightings, to reflect this increase in the availability of single line working. On this basis ORR proposes to set a PDI-F target of 1.0 throughout CP4 (i.e. no worse than in 2007/08).

We agree that a benefit of our CP4 plans will be an increase in the extent to which single line working is possible. However, we do not believe that the approach proposed in the consultation paper is workable.

First, it is not clear on what basis ORR has estimated the SLW weightings. And, although it is clear in qualitative terms what the weightings are attempting to capture, it is not clear on what basis the weightings could be objectively quantified in future. For example, an approach based on available paths would be unreliable because the take-up of freight paths is generally (and for good reasons) significantly less than 100 per cent; and an approach based on timetable bids and offers would be unreliable because timetable bids are in practice modified to reflect known possessions.

Second, the process proposed in the consultation paper, that Network Rail should propose changes to SLW weightings in consultation with the industry, is far from ideal as a key part of the measurement of a regulated output. Without an objective method to determine the weightings, and therefore without even any certainty as to whether the initial weightings are correct, there is a significant risk that the process would become driven by the potential effect on PDI-F, rather than being an objective measure of output.

Finally, even if there were an entirely objective method of determining both the initial SLW weightings and subsequent adjustments, the consultation paper presents no analysis (or even qualitative arguments) to support any particular future trajectory. Rather, the rationale for the PDI-F target of 1.0 appears to be that, even if the overall effect of our plans on freight operators is positive (due to factors not captured by the PDI-F measure), it would also be desirable for the measure itself to show no deterioration. We agree that this would be desirable (indeed it would be desirable for the measure to be as low as possible) but we do not believe that this is an adequate basis for setting a regulated output target.



We therefore propose that the PDI-F measure, and regulated target, should not include SLW weightings as proposed by ORR. The delivery of benefits not captured by PDI-F should then be monitored by other means, rather than by introducing essentially arbitrary terms into the quantified measure.

### **Freight-specific enhancement weightings**

As with the PDI-P measure, the calculation of the PDI-F trajectory depends on enhancement weightings that reflect the disruption to freight caused by enhancement schemes, relative to the disruption caused by an equivalent amount of renewals spend.

As with the PDI-P calculation, the freight-specific enhancement weightings that we provided to ORR in June were a subjective estimate of the amount of access required to deliver the CP4 enhancement schemes, but did not reflect the location of the schemes as we understood that this would be taken into account in the model that calculates the trajectory.

It appears that the model does not do this. Moreover, ORR has adjusted the weightings we provided. It appears that these adjustments are intended to reflect, at least in part, the locations of schemes and hence the extent to which they are disruptive to freight. However, the adjustments appear to be all in one direction. Weightings have been reduced for schemes in locations with lower than average levels of freight traffic (for example some parts of Sussex and Kent), but there is no corresponding increase for schemes in locations with higher than average levels of freight traffic (for example the North London Line and the West Coast Main Line).

As with the enhancement weightings for PDI-P, the freight enhancement weightings therefore need to be re-estimated to reflect not only access requirements of each scheme, but also the volume of freight traffic at the relevant locations.

### **Activity volumes**

As stated above in the context of PDI-P, we believe that the PDI-F trajectory should reflect the maintenance and renewal volumes in our plan, and that it should reflect all enhancements over CP4, not just those funded via the periodic review.

### **The PDI-F model**

As stated above in the context of the PDI-P, we have significant concerns with the model used by ORR to calculate the PDI-F trajectory. We

therefore believe that the model needs further validation before a CP4 trajectory can be calculated.

### **Effect on the PDI-F trajectory**

We are not yet in a position to propose a revised PDI-F trajectory for CP4 (even assuming that the SLW weightings are removed). However, as with the passenger measure, it seems clear that the enhancement element of the PDI-F trajectory needs to be increased significantly.

We propose to work with ORR over the coming weeks to resolve these issues.

### **Treatment of risk**

We believe that the risk around the PDI-F trajectory is at least as great as the risk around PDI-P, even if SLW weightings are removed from the PDI-F measure as we propose.

As with PDI-P, we therefore propose that ORR should assess whether the PDI-F target is reasonable based on actual results as CP4 progresses.

### **Monitoring**

We agree that there is a need to monitor supporting measures, to aid understanding of what is a complex area. We believe that the supplementary measures proposed by ORR will be useful in this respect.

Many of the proposed measures are either already reported, or can be reported based on existing data. However, two of the measures will require more significant changes to data collection processes and/or systems:

- monitoring of possessions cancelled after the publication of the Weekly Operating Notice will require manual collation of data from control centres; and
- monitoring of possessions that are whole route blocks (as opposed to those keeping one or more lines open) will in the longer term require systems changes. In the shorter term we expect to be able to put in place manual monitoring, again based on data from control centres.

We agree that some monitoring will be needed on a route by route basis, in particular in order to identify the contribution made by Stage 2 investments. The most appropriate measures will to some extent depend on the precise investments planned for these routes. We propose that we should discuss this with ORR as

these plans are firmed up during the development of our CP4 delivery plan.

We also agree that monitoring should include the extent to which possession plans (in particular, cyclic maintenance patterns) are produced to a regular timetable, allowing longer term planning of services. We believe that an appropriate way of monitoring this would be against milestones in our CP4 delivery plan.

### Stations

In our 2008 Annual Return we have published station condition information by station category using the new condition methodology. We note that ORR will use this information as the basis for setting minimum average condition levels in its final determinations. As we indicated in the SBP, we are committed to work more closely with train operators to develop and deliver integrated plans of work at stations. This will assist in the development of our station asset maintenance and renewal programmes and will to some degree influence the condition profile by category.

ORR has also stated that it will require us to provide average station condition information separately for those stations that have benefited from National Stations Improvement Programme (NSIP) funding, as it expects that these average conditions will improve. It should be noted that, as NSIP funding is not intended to cover activities for which Network Rail is already funded, it is likely that condition measures will only improve in circumstances where asset renewal has been brought forward to support an NSIP funded initiative. We have agreed with our industry partners that passenger surveys will be used to assess the effectiveness of NSIP investment.

### Depots

We intend to publish the current average depot condition measure and how this will change over CP4 as part of our CP4 delivery plan. We note that ORR intends to treat this projection as a customer reasonable requirement.

### Customer satisfaction

Improving customer satisfaction is a key priority for Network Rail. This applies both to our immediate customers (the passenger and freight train operators) and the ultimate users of the railway (passengers and freight users). We undertake regular surveys in this area and the Remuneration Committee has confirmed that it would take account of customer satisfaction in the management incentive plan. These surveys

together with surveys of other stakeholder groups are also linked to the balanced scorecard.

### Asset serviceability

We note and welcome ORR's intention to use the components of our Asset Stewardship Index as the primary focus of its asset monitoring regime. However, it should be noted that the stewardship forecasts replicated by ORR in its draft determinations reflect values we predicted at the time of the publication of the SBP. We had published revised forecasts for these measures in the SBP update. ORR has acknowledged this error and we expect the final determinations to reflect these updated forecasts.

We also note that ORR intends to use a number of second-tier measures for further diagnosis of our asset stewardship. As discussed in the introduction to this chapter, we acknowledge the importance of a broad range of condition and activity volume measures as a means of assessing the longer term sustainability of the delivery of our outputs. The monitoring regime we are putting in place reflects this position and is designed to provide appropriate assurance to ORR. As a number of ORR's proposed second-tier measures are not yet fully defined (or are potentially ambiguous) we intend to work with ORR to agree suitable definitions for these measures prior to the commencement of CP4.

It is important to recognise, however, the potential disadvantages of an over-reliance on such input measures. Whilst these may provide important supplementary information, the flexibility we require to deliver the high-level outputs may necessitate a variation in activity levels or certain condition measures. Generally such variations should only be considered material where there is a consequential impact on the delivery of our high-level outputs.

### Change process

We support the principle of the change control process but need to understand how this would work in practice and the materiality of the changes that trigger the need for formal change control. The deliverables and milestones of the plan will undoubtedly change as we refine our proposals through the control period.

We would also expect to refine in collaboration with our customers the plans to deliver the capacity outputs and therefore would be jointly promoting changes. The change control process should reflect this to ensure it is an efficient process. The proposed process for other

disaggregated output commitments would seem equally appropriate for the capacity outputs.

We welcome the intention to establish a mechanism to allow the “fine tuning” of our regulatory outputs if an alternative, more efficient means of delivering the HLOS requirements was found. It is critical that we have the flexibility to deliver these required outputs in the most efficient manner, and that we are able to take account of changes in circumstances or knowledge during the control period. We note that the details of the mechanism are to be discussed prior to ORR’s final determinations in October. These details could be critical to the practicality of the mechanism and the way it could impact on us and so we would expect early engagement on this.

### Business plan notice

We will continue working with operators and other stakeholders as we develop our CP4 delivery plan. In particular we have written to passenger and freight operators explaining how we propose to consult them on our plans following publication of the final determinations.

We have already written separately to ORR in response to its consultation notice on the 2009 Business Plan, which will be the CP4 delivery plan. Our main concern is the proposed requirement to publish the CP4 Delivery Plan by 27 February 2009.

We recognise the underlying need for our customers to understand before the start of CP4 what we propose to deliver and the importance of ORR’s support for our plan. Indeed we are keen that our plans should reflect a good understanding of our customers’ requirements and should ideally be agreed with them wherever possible. We are also keen that ORR should have the opportunity to consider any issues arising from these discussions before our plan is established and ideally before we decide whether to accept the final determinations.

However, we consider that publishing the plan by the end of February is not necessary to meet this underlying requirement. Moreover, we believe there are significant difficulties with this proposal which could undermine the quality of the plan which is published. This is particularly difficult in the context of the significant differences between our plan and the draft determinations. Clearly we will need to take a view on any remaining differences in the light of ORR’s final determinations and our decision on whether to accept these.

The issue therefore is the most appropriate way of consulting with our customers and other relevant stakeholders and for ORR to be able to take account of its views when considering our plans. In considering this issue, it is important to recognise that we develop our plans in collaboration with our customers and there has already been very considerable discussion on these matters over the last few years. In addition, we have recently been discussing with our customers the timescales for the refinement of our plans and specifically the timetable for the development of the route plans, the long term performance plans and JPIPs and the development of our proposals for the seven day railway.

We would expect to share the outputs from the various workstreams as they become available but ultimately we intend to pull together the various strands on capacity enhancements, performance improvements, seven day railway proposals and our core asset renewals plans into the route plans. The process for finalising these plans will therefore consider these as a coherent strategy for each route.

We expect to share draft outputs with operators around the end of the year. We would also share this information with ORR. Following consideration of this consultation with customers and our decision on acceptance of the final determinations, we would provide ORR with the outputs to be included in the plan by the end of February 2009. We would then propose to publish the complete CP4 Delivery Plan at the end of March.

In our separate letter, we have also made a number of specific comments on the draft notice. In summary, the notice still leaves a lot of interpretation and we have asked for further discussion and clarification on the points raised.

### Environmental initiatives

We note and endorse ORR’s view with regard to the role of the rail industry in developing and maintaining a sustainable railway system and we note ORR’s intention to defer the consideration of setting specific environment targets until CP5.

As we set out in our SBP we are committed to playing our part in the provision of an integrated, socially inclusive and environmentally sensitive railway that meets the demands of a growing economy. Since publication of the SBP update we have shared our sustainability policy with ORR. This policy sets out our goals and

strategies for each of the three pillars of sustainability: economic, environment and social.

These plans continue to evolve and we have carried out considerably more work to refine our strategies and implementation plans, in particular with regard to non-traction CO<sub>2</sub> and improved waste management. We are also working with our industry partners on strategies to reduce traction related CO<sub>2</sub>. The recent discussions on this are aimed at developing a cross industry programme to install meters on trains to facilitate billing based on actual versus modelled energy use. This will act as a major incentive to encourage more energy efficient driving of electric freight and passenger trains. The wider implementation of regenerative braking also remains central to our thinking on reducing traction related CO<sub>2</sub>.

A comprehensive suite of performance indicators is being put in place to assess the delivery of our sustainability strategies and to help us target appropriate actions. In addition, we have continued to play an active role in the cross industry group that has been developing industry wide performance measures. We will report on our performance against these indicators as part of the annual reporting process.

We believe that our plans for CP4 will contribute substantially to the development of a more sustainable railway and help provide a solid platform for specific environmental and broader sustainability targets for the future.

## 2 Efficiency

### ORR's draft determinations

ORR has concluded that we can achieve real annual efficiency gains of 3.5 per cent for controllable operating expenditure and five per cent for both maintenance and renewals expenditure. This results in an overall efficiency improvement during CP4 of 16.3 per cent and 22.6 per cent respectively.

ORR has derived these conclusions based on its views on:

- the scope for Network Rail to improve its efficiency ("the efficiency gap") at the end of CP3;
- the further efficiency improvements that an already efficient company would be expected to make during CP4 ("frontier shift");
- the proportion of the efficiency gap that can be caught up in CP4; and
- the impact of real input price inflation.

ORR's conclusions for each of the assumptions are summarised in Figure 2.1.

ORR's assessment of the efficiency gap appears to place particular reliance on two pieces of evidence:

- econometric analysis carried out by Leeds Institute of Transport Studies using data from the Union Internationale des Chemins de fer (UIC) Lasting Infrastructure Cost Benchmarking (LICB) analysis which supports its assessment of maintenance and renewals efficiency; and
- the analysis of improvements in real unit operating expenditure (RUOE) by Oxera, which supports its assessment of operating cost efficiency.

Its assessment of frontier shift is based on Oxera's analysis of total factor productivity.

The results of these quantitative studies appear

then to be compared to a range of further evidence (based on specific elements of our cost base) to provide a separate sense check. The evidence ORR uses at each stage is summarised in the second column of Figure 2.2.

It is critical that the results of this benchmarking analysis are robust. In developing our response, we have asked LECG and Horton 4 Consulting to review this analysis. We have incorporated their advice into this response. We are also providing ORR with their reports.

### Our response

We believe that ORR's draft determinations are based on analysis that is not robust and that its efficiency targets for CP4 are unrealistic. We consider that:

- achieving our existing projections for operating and maintenance costs in the first year of the next control period is already a major challenge. For ORR to assume a lower starting point is unrealistic and does not take proper account of the actual circumstances;
- critical elements of ORR's benchmarking are flawed and excessive reliance is placed on the results;
- ORR asserts incorrectly that the cost increases that followed Hatfield are due to reductions in efficiency and that this could have been easily reversed without compromising outputs;
- the pace of change required to deliver our plans is already highly ambitious given what has been achieved to date and given the other improvements which are expected over the next few years;
- substantial improvements in efficiency in the next control period and for the longer term require investment in people, processes and technology which need to be funded through the review; and
- the basis for some of ORR's proposed adjustments to renewal volumes is flawed and double counts scope efficiencies which are also included in its top down efficiency assumptions.

Figure 2.1 ORR efficiency assumptions

Per cent	Maintenance	Renewals	M&R (weighted)	Operating costs	OM&R (weighted)
End CP3 efficiency gap	31	36	35	35	35
Catch up in CP4	20	24	23	23	23
Frontier shift	3	3	3	1	3
Input price adjustment	(6)	(3)	(4)	(8)	(5)
<b>CP4 efficiency</b>	<b>17</b>	<b>24</b>	<b>22</b>	<b>17</b>	<b>21</b>

**Figure 2.2 Evidence supporting efficiency assumptions**

Component	Existing studies	Further evidence from Network Rail
Existing efficiency gap	Oxera report (based on LEK / Oxera 2005)	LECG report
	Network Rail response to LEK & Oxera	LECG review of Leeds ITS analysis
	Leeds ITS econometric benchmarking	Horton 4 Consulting report
	LECG	
	Alternative normalisation	
	BSL	
Available catch up in CP4	WPA	Network Rail responses to studies
	Inbucon	Network Rail latest initiatives
	KPMG	
	RailKonsult	
	AMCL	
	Lloyds Register Rail	
	EWS	
	Abbott	
	Heath Lambert	
Frontier shift	Oxera	Horton 4 Consulting
		LECG
Input prices	LEK	Update on latest market conditions

We set out in this chapter our response to ORR's evidence and analysis that support its conclusions on efficiency as follows:

- the impact of our forecasts for next year;
- an assessment of ORR's benchmarking analysis and the impact of ORR's views of the cost increases following Hatfield in CP3;
- an assessment of the pace of change, including an assessment of ORR's supporting evidence;
- a high level update of our further progress in developing efficiency plans for CP4;
- a review of ORR's treatment of input price inflation; and
- an assessment of whether ORR has included the enabling investment required to achieve the efficiency savings.

The evidence provided is summarised in the third column of Figure 2.2. In the next chapter on renewal activity volumes, we explain why we believe ORR's adjustments implicitly include further efficiency savings.

### Achieving our SBP projections for 2009/10

During CP3 we have achieved substantial cost reductions while delivering significant improvements in performance and asset condition. In the first four years of the control period, we have achieved operating and maintenance cost efficiency savings of 28 and 31 per cent respectively. Both of these are a little

ahead of ORR's targets. Overall, we have at least delivered the required outputs while improving asset condition within the available funds. In doing so, we have achieved unit cost efficiency savings in renewals of 18 per cent which is clearly significant but less than ORR's target.

After the rapid progress at the start of the control period, the rate of progress has slowed significantly as it becomes more difficult to deliver further cost savings. Some costs are rising significantly in real terms. For example, utility costs have already increased during 2008/09 by more than £5 million (an increase of more than 12 per cent) and cable theft is resulting in an increase of around £10 million per year.

Delivering the savings required in 2008/09 will be challenging for maintenance and operating costs, which we manage together when setting functional budgets. We believe, however, that we should be able to achieve our 2008/09 budget. This will be partly as a result of delays in the negotiations for standardisation of maintenance and terms and conditions and the release of some provisions. As the 2008/09 budget will partly be achieved as a result of these provision releases, we will need to find further savings to offset this in 2009/10. We are separately providing ORR with an update of our latest full year forecasts for this year.

Despite the cost pressures, we believe that we will be able to reduce total operating and maintenance expenditure from £1,844 million to



**Figure 2.3 Changes in operating costs since SBP**

£ million (2006/07 prices)	Operating costs	Maintenance	Total
ORR 2009/10 draft determinations	728	1,020	1,748
<b>Key differences</b>			
Insurance	5	-	5
Standardised maintenance terms and conditions	-	28	28
2008/09 cost increases	10	9	19
Pensions	(4)	-	(4)
Reallocation	30	(30)	-
<b>Total</b>	<b>41</b>	<b>7</b>	<b>48</b>
Lower efficiency savings	6	8	14
Network Rail 2009/10 plan	775	1,035	1,810

£1,810 million (in 2006/07 prices) in 2009/10 while improving outputs. This is an improved position relative to the SBP update in which these costs totalled £1,817 million. However, this is significantly higher than the £1,748 million included in ORR's draft determinations. The key differences are summarised in Figure 2.3 and are described below.

ORR identified that we had incorrectly included business interruption insurance costs in our operating costs and reduced our operating costs by £30 million. We agree that we had incorrectly included these costs. However, ORR has overstated the size of business interruption insurance costs in our plan so we have reduced operating costs by £25 million in our 2009/10 plan. As a result our 2009/10 plan is £5 million higher than ORR's draft determinations. We comment further on insurance later in this chapter.

This reduction is more than offset by other changes. Implementation of standardised maintenance terms and conditions should be achieved next year, which is expected to increase our annual costs by £28 million (in 2006/07 prices). This is not reflected in ORR's draft determinations.

Our 2008/09 operating costs have increased by £10 million since we published the SBP, although they remain less than the amount allowed in ACR03. Maintenance costs have also increased by around £9 million, largely as a result of traffic growth.

In 2009/10, we expect pension costs to be around £4 million less than 2008/09 as we have included the cash cost of pensions in our plan for CP4 rather than the service cost that is included in our accounts.

Since we published the SBP, we have identified the need to reclassify costs between maintenance and operating costs. We had included £30 million operational strategic plant in maintenance. This is more correctly classified as an operating cost in our 2008/09 budget and current plan for 2009/10.

Our current plan for operating and maintenance expenditure in 2009/10 is based on achieving cost savings of around 3.5 per cent after taking into account the above adjustments and increases in maintenance activity.

For maintenance, we expect to achieve cost savings of 4.3 per cent, slightly less than ORR's assumption. However, as noted above, these cost savings will be almost completely offset by the impact of standardising maintenance terms and conditions and activity volume increases, including the increased costs of maintaining the West Coast Main Line following introduction of the new timetable (which were reflected in ORR's draft determinations).

We explained in the SBP that the underlying cost drivers and scope for efficiency improvement vary considerably for different elements of our operating costs. The opportunity to achieve significant savings in the costs of insurance, pensions and signallers, which account for around 40 per cent of our controllable operating costs, is limited. We have recently agreed insurance cover for the whole of CP4, pension contributions will increase as employees transfer from the defined contribution scheme after five years service, and the number of signallers required to operate the current infrastructure is largely fixed. There are significant uncertainties in our pension costs as an actuarial valuation of the defined benefit scheme has yet to be completed.



**Figure 2.4 Changes in operating costs since SBP**

£ million (2006/07 prices)	Signallers	Insurance	Pensions	Other operating costs	Total operating costs	Maintenance	Total
ORR draft determinations (pre-efficiency)					754	1,074	1,828
Adjustments to Network Rail plan since SBP					41	7	48
<b>Network Rail 2009/10 plan (pre-efficiency)</b>	<b>188</b>	<b>62</b>	<b>84</b>	<b>461</b>	<b>795</b>	<b>1,081</b>	<b>1,876</b>
Network Rail efficiency savings	-	-	-	(20)	(20)	(46)	(66)
<b>Network Rail 2009/10 plan</b>	<b>188</b>	<b>62</b>	<b>84</b>	<b>441</b>	<b>775</b>	<b>1,035</b>	<b>1,810</b>
Further savings to achieve ORR determinations	-	-	-	(17)	(17)	(45)	(62)
<b>ORR 2009/10 draft determinations adjusted for reclassification (see note)</b>	<b>188</b>	<b>62</b>	<b>84</b>	<b>424</b>	<b>758</b>	<b>990</b>	<b>1,748</b>
<b>Efficiency savings</b>							
Network Rail plan	-	-	-	4.3%	2.5%	4.3%	3.5%
Total savings to achieve ORR draft determinations	-	-	-	8.0%	4.7%	8.4%	6.8%

Note: for the purposes of this analysis we have adjusted ORR's draft determinations to reflect the reclassification of £30 million from maintenance to operating costs

and we are introducing a new scheme based on career average earnings.

Our 2009/10 forecast for operating costs is based on cost savings of around 2.5 per cent. After taking account of the limited potential for savings in insurance, pensions and signallers, however, we will need to realise cost savings of around 4.3 per cent to achieve our plan for overall operating costs. This is shown in Figure 2.4.

In its draft determinations ORR assumed that we could reduce operating and maintenance costs to £1,748 million, based on cost savings of 3.5 and 5.0 per cent respectively. To achieve this we would need to reduce costs by an additional 3.3 per cent in 2009/10 (on top of the planned savings outlined above) implying overall savings of 6.8 per cent in 2009/10.

Recognising that there is limited scope for savings in insurance, pensions and signallers, ORR's assumptions imply that we would need to achieve total savings for both maintenance and the rest of our operating costs of more than eight per cent compared to our current plans (after taking into account the reclassification from maintenance to operating costs). As over 60 per cent of these operating costs are direct and indirect staff costs, we would need to deliver these savings through significant headcount reductions over the next few months. ORR is therefore assuming an unrealistic level of savings to be achieved next year.

In our view it is therefore unrealistic for us to reduce our total operating and maintenance costs in 2009/10 below our current projection of £1,810 million (in 2006/07 prices).

We therefore believe that ORR should increase its allowance for operating and maintenance costs in 2009/10 by £62 million. If this was also reflected in the remainder of CP4 (and even adopting ORR's assumed rate of efficiency improvement from our projected 2009/10 starting point), the CP4 allowance for operating and maintenance costs would increase by around £290 million.

For renewals, we have achieved unit cost savings of 18 per cent which is clearly significant but less than ORR's target. This is due in part to a particularly challenging economic climate for construction work with steep increases in raw materials prices (such as steel and copper cable) and very high fuel prices. Furthermore, increases in traffic on the network are also making engineering access more restricted. This means, for example, that for track renewals we are currently falling behind our targeted unit cost savings. As a result it appears likely that we will miss ORR's overall challenge to reduce renewal unit costs by 31 per cent by the end of CP3. It will therefore be very challenging to achieve the level of savings that we assumed in the SBP. ORR needs to take this into account when setting efficiency targets for CP4.

## ORR's efficiency benchmarking

The first step in ORR's analysis was to take a view on the existing gap between Network Rail and best performing companies, largely using top-down analysis. Separate analysis has been used for maintenance and renewals expenditure and for controllable operating expenditure. For maintenance and renewals, ORR's conclusions draw heavily on econometric analysis carried out by Leeds Institute of Transport Studies (Leeds ITS), comparing Network Rail's maintenance and renewals expenditure to other European infrastructure managers. For controllable operating costs, ORR largely based its analysis on Oxera's study into the rates of change achieved by other regulated industries in the past.

We explain in the following sections why we consider that these two key pieces of evidence on which ORR appears to rely for its assessment of the efficiency analysis significantly overstate the actual efficiency gap.

## Econometric analysis of UIC data

Based on the analysis by Leeds ITS, ORR has concluded that there is a substantial efficiency gap between Network Rail and the upper quartile of comparator railways (31 per cent for maintenance and 36 per cent for renewals). ORR claims that its econometric models "are robust, both statistically and from an engineering perspective". We do not agree that this is the case. We demonstrate below that the models are not robust and that, as a result, the efficiency gap is overstated. Our key concerns include issues relating to:

- the quality of data used in the analysis;
- the assumption that the benchmark countries are carrying out the level of activity to maintain their networks in steady state;
- the omission from the models of a range of cost drivers;
- the impact of a number of other factors; and
- the selection and use of the econometric model.

We have openly acknowledged that there is scope for substantial improvement across the business but the scale of the gap identified by ORR lacks credibility. ORR has dismissed many of our key challenges to its analysis without adequate justification. We have consistently stated that this analysis cannot be relied upon to provide a robust assessment of an efficiency gap.

## Data quality

UIC has stated that some of the LICB data is likely to be inconsistent as expenditure is not classified in the same way in each country. For example, investment in many countries comprises renewals and enhancements, but the definitions are not consistent. As the data does not include enhancement expenditure, there will be some inconsistencies in the investment expenditure that has been included.

Even after a number of undocumented "corrections" to the data by Leeds ITS, there remain significant inconsistencies. For example, the number of switches and crossings for one railway doubled in 2001 before halving again in 2005. This would suggest that reporting is inconsistent, drawing into question the accuracy of the other data.

## Activity volumes

The analysis is based on the assumption that each country (except Great Britain) has been carrying out the required level of activity necessary to maintain its network in a steady state. This assumption is not correct.

In the SBP update, we provided a report by BSL which demonstrated that the renewals rates experienced amongst the LICB comparators do not reflect steady state levels, and were in fact largely below the required levels of investment. BSL concluded that an overall uplift of 74 per cent was required to the average renewals spend in the sample to compensate for this shortfall in activity.

ORR has dismissed BSL's evidence. ORR's draft determinations included some potential explanations for dismissing BSL's conclusions that are not supported by any evidence or analysis. ORR's arguments are not conclusive and alternative logical explanations can be developed. For example, given the comparatively long life of railway assets, recent renewal rates could be low without average ages increasing greatly as ORR claims they would.

ORR's assumption that the comparators are in steady state does not take into account the level of government funding made available to European railways which affects the level of expenditure as acknowledged by several railways in UIC's 10-year report. Restrictions in funding may therefore be mistakenly identified as efficiency because the resulting lower expenditure would be assumed to maintain steady state. Hence the "leading firms" may well simply be the under-funded firms over the ten

year period. More generally, no account is taken of variations in activity volumes, which is a key driver of costs. The steady state assumption also implies that fluctuations in renewal volumes outside of the leading firms will not impact on the analysis.

Even if the comparator railways were on average in steady state, the econometric analysis remains sensitive to annual variations in maintenance and renewals expenditure. It is clear from the underlying data that there are variations which are not consistent with the factors used in the analysis. Every change in costs not explained by one of the cost drivers weakens the model, and therefore it is less able to predict relative efficiency levels.

As the analysis is not based on an understanding of the activity volumes and how they fluctuate, ORR cannot conclude that the results are robust.

### Cost drivers

Key drivers of activity levels, and therefore expenditure, are the age and condition of assets, and the level of performance that each network is planning to achieve. These variables have not been taken into account in the analysis.

In its 10-year report UIC stresses the need for further factors (such as safety, asset condition and train performance) to be introduced into the analysis. Without robust data on these factors it is not possible to determine the extent to which countries are achieving lower costs without impacting on outputs. Even internally for the UK there was a large change in standards pre- and post-Hatfield, but the model interprets all of the related cost increase as due to inefficiency. We believe that adjusting for performance and safety would improve the relative position of Network Rail. There is a wide range of factors that could be taken into account in this analysis, including differences in:

- the nature and extent of engineering access;
- the accessibility of worksites;
- the layout of the network (e.g. the space between tracks);
- the extent of tunnels;
- listed buildings requirements; and
- construction materials for bridges (e.g. metal, masonry).

Another factor is that infrastructure managers may have different responsibilities for assets. In Britain, we are responsible for the maintenance and upkeep of most overbridges as well as underbridges. However, this is not the case for all

the other major EU infrastructure managers where the responsibility for maintaining and renewing the bridge structure for overbridges lies with the owner of the road or the relevant road authority. Approximately 30 per cent of our bridge expenditure requirement relates to overbridges where we will need to spend about £70 million each year during CP4. Clearly, this will have a significant impact on cost comparisons.

Although some of these factors will show that our costs are relatively more efficient, in some cases the effect might be to indicate that they are less efficient. Nevertheless, our main concern is that the analysis cannot capture any company's relative inefficiency reliably without taking account of these variations.

### Other factors

The model has further shortcomings with further variables being omitted from the analysis. For the model to provide robust results, it should also take account of the impact of input prices (mainly labour and materials). Other key parameters relate to currency exchange rates and changing costs over time. To convert each railway's costs to a common currency, the Purchasing Power Parity exchange rate has been used. Horton 4 Consulting reports that the Organisation for Economic Co-operation and Development urges caution when using these rates. They may not be appropriate for specific industries as the rate will be influenced by the relative efficiency of sectors within an economy.

The analysis also includes factors that allow costs to vary over time, recognising that costs and efficiency vary over time. However, the factors used do not appear to be realistic. If the analysis is extrapolated to the end of CP4 using these factors, the relationship implies that cost could be reduced by 80 per cent. This casts further doubt on the robustness of the analysis.

In its draft determinations, ORR acknowledges that the available data does not allow them to explain fully the difference between Network Rail's cost base and that of our peers. It therefore refers to a qualitative assessment of the exclusion from the analysis of key factors (such as asset quality and topography), but again provides no evidence. ORR effectively assumes that the model has taken into account all relevant factors and ignores the effects of any additional systematic factors such as geographical differences or political factors that could affect companies' costs. Omitting these variables introduces bias in the estimates of the model and reduces its reliability.

### **Econometric model**

We do not believe that an appropriate econometric model has been selected. The model used by Leeds ITS is based on a form of cost equation known as Cobb-Douglas. It is well known that this functional form is not consistent with economic theory when there is more than one output in the equation. The Leeds ITS model is based on two output variables: passenger train density and freight train density. As a result, ORR's approach to the analysis is not backed up by economic theory and it provides no supporting evidence as to why it is appropriate.

The preferred model fails to produce an efficiency estimate. The choice of model and the way it is specified is simply not appropriate for the data. It is only through using a bespoke amendment to the software that the model is "forced" to generate its results. This is not a fix to a technical problem, rather it is a fix to get the model to work while leaving the technical problem unresolved. The fact that the preferred model will not work unless this change is made is another indication that the model is not robust, and that there is a problem with the way it is specified.

This again raises concerns about the suitability and robustness of the model used. ORR states that the models used are statistically robust. This is clearly not the case.

### **Transparency**

We also note that, while we have been provided with emerging results of the econometric analysis, we have not seen a report that provides a full justification for the methodology and assumptions. Given the weight that ORR appears to place on this work, we would expect there to be a full report that explains:

- the adjustments made to the LICB data by Leeds ITS;
- the reasoning behind including and excluding variables, for example, the "electrification" variable in the model is included while having an impact that is neither justifiable from a statistical nor engineering perspective, and the "switches and crossings" variable is excluded without explanation;
- the rationale for selecting the final model based on the results of the different models used; and
- a sensitivity analysis of the impact on the results of varying the key parameters.

### **Application of results**

We also note that ORR has not used its own conclusions consistently. The draft determinations conclude that the efficiency gap is 31 per cent for maintenance and 36 per cent for renewals, but then uses a weighted average level of 35 per cent for both maintenance and renewals, on the basis that Network Rail can switch between maintenance and renewals to deliver outputs.

This is a simplistic assumption which increases the assumed efficiency savings for maintenance and results in a lower estimate of our required revenues because renewals are treated as capital investment. There are many maintenance activities that cannot be substituted and this approach would therefore require reduced maintenance volumes. For example, inspection represents a significant proportion of maintenance activity which cannot be replaced by renewals. It would be easier to increase maintenance activities as a substitute for renewals, although this is likely to be at the cost of higher whole life costs in maintaining assets beyond their economic service lives. We therefore believe that if ORR's final analysis of efficiency differentiates between maintenance and renewal then this should be reflected in the final determinations.

If ORR had applied separate assumptions for maintenance and renewals, maintenance expenditure in CP4 would have increased by around £190 million, offset by a reduction in renewals of around £110 million.

### **Regional dataset**

ORR has also carried out further analysis using more disaggregated data. This work is still in its early stages and ORR acknowledges that any results are tentative. Due to confidentiality concerns of the participating railways, we have not been provided with ORR's analysis. In the light of similarities with the approach of the LICB analysis, indications are that the results might suffer from the same reliability concerns. The lack of transparency limits our ability to respond, leading us to question the inclusion of the analysis in support of a regulatory determination.

We are concerned that the analysis is based on comparing data for only one year for Network Rail against (up to) five years of data for other networks. Even five years is not sufficient to address the impact of underfunding in some other railways. In any case, we believe that further work is required before the results can be useful, including, for example, increasing the time

period covered, extending the number of countries included and incorporating the impact of all the key cost drivers.

It is also surprising that the analysis has not used the same assumptions and cost drivers as the Leeds ITS analysis. If the models were correct we would expect these to be similar between the different models. These differences undermine the credibility of both the Leeds ITS and this new regional model. It is not reasonable for ORR to conclude that the regional analysis provides strong support for the LICB analysis.

#### **Alternative normalisation**

ORR has carried some further analysis which considers some alternative parameters. In particular, it assessed the impact on costs of different capability and usage characteristics. The analysis is based on the same data and therefore has the same issues relating to data quality and cost drivers. In particular, the analysis does not take into account the key omitted variables such as asset condition, performance levels and funding constraints. Whilst the analysis provides further evidence of an expenditure gap, it provides no further evidence as to how much of this gap can be attributed to efficiency or other factors.

#### **Unit cost efficiency following Hatfield**

ORR asserts that unit cost efficiency declined significantly following Hatfield and it wrongly implies that this could have easily been reversed without compromising outputs.

We recognise that Leeds ITS has made an adjustment to reflect Network Rail's infrastructure renewal activity not being in steady state. However, the results of its econometric analysis imply that Railtrack was more efficient in the years before Hatfield than Network Rail is today. It is now well known that the levels of maintenance and renewal activities undertaken at that time were unsustainably low. This is supported by the fact that following privatisation, maintenance costs were based on fixed price contracts with an annual deflator. These arrangements ceased around the time of Hatfield. It is also acknowledged that considerable improvements have been made in recent years. This should raise major doubts about the robustness of ORR's analysis and we have seen no evidence to demonstrate that the adjustment made by Leeds ITS is appropriate. This reinforces the concern that analysis is simply comparing annual expenditure and not properly taking into account actual differences in

activity volumes, asset condition and performance levels through the ten year period.

Our SBP provided substantial analysis which demonstrated that most of the expenditure increases in the period following Hatfield could not be described as reduced unit cost efficiency. There were significant increases in the volume of maintenance and renewal activity rather than in unit costs. Key factors that contributed to these increases included increased activity volumes to improve asset condition as volumes were at unsustainably low levels before Hatfield. Higher volumes were also required to manage the impact of growth in traffic during CP1 and CP2. Prior to Hatfield, it appears that these volumes had been artificially depressed, at least partly because of the largely fixed price maintenance contracts that were in place. As far as we are aware ORR has not addressed this evidence in its draft determinations. Moreover, ORR appears to have presented no evidence of its own in support of its underlying assumption.

#### **Conclusion**

We believe that there are significant uncertainties in the key parameters and the modelled relationships, and as a result there is a huge range of uncertainty in the results of the econometric analysis. The results should therefore have incorporated a range of potential cost differences arising from the model rather than a point estimate.

While we recognise that the LICB data shows a significant gap in costs, ORR's analysis is not sufficiently robust to provide conclusions on Network Rail's relative efficiency for the purpose of setting targets. This is underlined by the UIC's concern, expressed in its 10 year report, that the LICB econometric model produces a different rank ordering to that resulting from its own work. We are therefore surprised that ORR has chosen to attach such weight to its analysis.

#### **Operating cost benchmarking**

ORR's assessment of the potential efficiency savings for operating costs is largely based on the level of savings that would have been achieved in other regulated sectors since privatisation. The key assumptions in this analysis are the costs at the start point for its analysis and the assumed rate of improvement. These assumptions are based on the rate of improvement in real unit operating expenditure (RUOE) achieved by other utilities and a starting point of 1995/96 when Railtrack was privatised. We consider these in turn below.



### Starting point

ORR has assumed that controllable operating costs should have reduced continuously since privatisation. ORR states in its draft determinations that no adjustment has been made for additional obligations and output growth as this would only account for a small proportion of the gap. ORR's analysis study was based on a report by Oxera in which it acknowledged that a better understanding of the cost increases during the period from 1999/2000 to 2003/04 was needed to fully understand the impact on the efficiency gap.

In our SBP we provided substantial analysis which demonstrated that a significant part of the expenditure increases in the period following Hatfield could not be described as reduced operating cost efficiency. ORR has not taken this into account in assessing the potential for efficiency savings in CP4. The use of 1995/96 as a baseline is fundamentally flawed and effectively says that all of the large increase in expenditure post-Hatfield was incurred inefficiently. These costs were not simply as a result of Hatfield. The following changes alone increased annual costs by around £190 million:

- increasing engineering resources by around 500 people (around £25 million) as following privatisation these resources had been inadequate for effective asset management – this was strongly supported by ORR at the time (for example, as part of our plans to comply

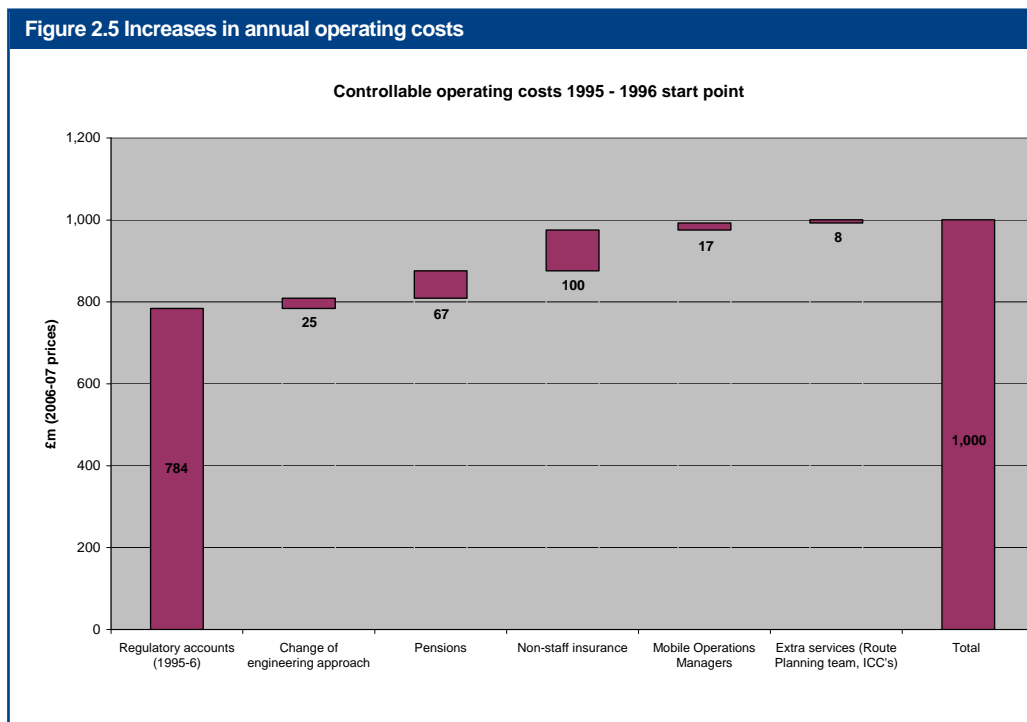
with licence condition 24) and has directly contributed to the improvements in asset condition and train performance during CP3;

- an increase in pension costs of around £67 million following the pension contributions 'holiday' which ended following the actuarial valuation in 2001 and many other companies experienced similar increases as a result of declines in the stock market; and
- an increase in insurance costs of around £100 million both as a result of Railtrack's claims record and also the wider insurance market impact of, for example, the 9/11 terrorist attacks.

In addition, there have been other cost increases. We have introduced mobile operations managers at a cost of around £17 million to improve response to delay incidents in support of the requirement to improve performance. We have increased resources so that we can deliver additional responsibilities that have been transferred to Network Rail, such as developments of RUSs and industry performance reporting (at least £7 million). We have also incurred additional signalling costs as a result of increased traffic (around £1 million).

While it is difficult to quantify these precisely, we estimate that the overall impact of these factors would be to increase operating costs by at least £220 million compared to 1995/96. This is illustrated in Figure 2.5 although this only shows the impact of those items that are readily

Figure 2.5 Increases in annual operating costs



quantifiable and it cannot simply be assumed that any remaining increases are inefficient.

As far as we are aware, ORR has not addressed this evidence in its draft determinations. If ORR had taken into account these cost increases in determining the start point for its analysis, the efficiency gap would be substantially reduced.

### **Rate of change**

ORR's assumptions for the rate of change is based on Oxera's report on the observed RUOE improvements in other industries. Oxera has responded to LECG's concerns with the original LEK/Oxera report and attempted to justify the choice of comparators used. However, we remain concerned about this analysis, particularly relating to:

- the use of an inappropriate set of comparator companies in the analysis;
- the unduly selective approach used to discard comparators when determining the central range;
- the use of the untested "reset hypothesis"; and
- a number of apparent errors and inconsistencies in the analysis, including the double counting of BT's relatively high efficiency gains.

Oxera has revised the comparator companies on which the original LEK/Oxera analysis was based and now includes gas distribution networks and Scottish Water. We do not consider that Oxera has provided a robust response to LECG's concerns about the comparators used. BT is still included (it is also double counted and benefits from faster technological progress), but BAA and Royal Mail (which both operate in the transport sector) have been excluded.

There are no direct comparators with Network Rail in Britain. It is important, therefore, that the analysis takes into account all relevant comparator companies. The criteria used by Oxera to select comparators are not clear, indeed, different criteria are cited in different parts of its report. Whatever criteria were used, however, we are concerned that the analysis excluded obvious comparators, such as Royal Mail and BAA, but included industries with a relatively high rate of technological change, (e.g. BT which appears to have been double counted), that cannot be representative of Network Rail's actual circumstances.

Royal Mail and Network Rail share many important characteristics, including a heavily unionised workforce, a geographically diverse

network, a similar rate of technological change, operations across the UK, low levels of competition and their operations involve the physical transport of goods through their networks. The exclusion of Royal Mail and BAA has led to a significant upward bias in ORR's conclusions.

Oxera made a number of adjustments to the underlying data, that we have not been able to verify. It appears that these adjustments are intended to remove the impact of one-off cost increases. It does not, however, make the equivalent adjustment for one-off cost savings. For example, for consistency Oxera should also exclude the significant one-off savings achieved by Scottish Water as a result of its merger. Adjusting for cost increases but not for savings has resulted in an upwards bias in Oxera's conclusions.

In developing its central range of RUOE improvement, Oxera discards comparator companies at the high and low ends of its initial range. Oxera excludes more than ten times as many companies from the low end of the range as it excludes from the high end. This results in significant upwards bias in its "central" range.

The central range adopted reduces the comparator set to BT (which we believe is double counted and, in any event, we believe is an inappropriate comparator) and electricity wires businesses. If conclusions are to be drawn from such a small comparator set, it is important that they are very closely comparable to Network Rail. This is not the case.

LECG has revised Oxera's analysis using a broader and more representative comparator set, and by deriving its central range by discarding a similar number of comparators from each end of the range. As a result, LECG suggests that the range of annual efficiency gains achieved in other industries is between 1.6 and 4.9 per cent. The corresponding central range is between 2.1 and 4.0 per cent with an average of 2.8 per cent. This is consistent with the ranges proposed by other regulators.

We also believe that the evidence behind the "inefficient" band is flawed as it is based on the reset hypothesis, distribution analysis and trend analysis, which are all subject to the problems discussed above.

For example, the reset hypothesis assumes that the Hatfield accident, the resulting increase in costs and the takeover of Railtrack by Network



Rail is akin to the position that utilities typically found themselves in at privatisation, and as such CP3 is equivalent to the first control period after privatisation. Although this does not appear to be used directly in ORR's draft determinations, we are concerned that this will have influenced ORR's interpretation of its other analysis. We believe the analysis is flawed as:

- the "reset hypothesis" is unproven, and there does not appear to have been any attempt to test it;
- the factors that cause companies to have relatively high gains in their second control period do not apply to Network Rail at this time;
- it takes no account of our explanations of cost increases at the time of Hatfield;
- it does not recognise the scale of savings that we have achieved in CP3;
- there is no evidence in the data presented that any individual company will follow the average pattern;
- there are a number of unexplained anomalies and inconsistencies between the results included in the 2005 LEK/Oxera study and those in the 2008 Oxera study; and
- there is no regulatory precedent for this approach.

Even if the "reset" hypothesis were to be proven (and we believe it would be disproved, if tested), to the extent that an inappropriate comparator set had been used, any conclusions would be unreliable.

ORR has acknowledged that some of our internal procedures are already best practice, and benchmarking studies in our finance and human resources functions have shown that there is limited opportunity for further cost savings. We would therefore expect the level of efficiency to be at the lower end of the "average" band given the improvements that are available to us. However, ORR appears to have taken no account of this in developing its efficiency assumptions and appears simply to have based its draft determinations on the middle of Oxera's "central" range, which as noted above, is biased towards companies at the higher end of the range.

### **ORR's efficiency gap**

On the basis of Oxera's analysis, ORR derives an efficiency gap of 35 per cent for CP4. This is based on the gap between our current operating costs and ORR's theoretical estimate for a benchmark company, based on a starting point of £780 million for controllable operating expenditure in 1995/96 and an improvement of

4.2 per cent per year to 2008/09. ORR has then assumed that it would take ten years to close this efficiency gap and that we should be challenged to catch up two-thirds during CP4.

We have explained in the previous sections that both the start point and rates of change used are not appropriate. The start point should be in the region of £220 million higher than that used by ORR and the improvement in RUOE should be around 2.8 per cent. The impact of the revised assumptions are shown in Figure 2.6. While we do not accept that ORR's approach is appropriate (since it ignores a wide range of other changes), this analysis suggests that the efficiency gap is around 18 per cent. This is approximately half the size of the gap assumed by ORR.

ORR has also taken no account of changes in the level of outputs. RUOE improvements are usually normalised by changes in outputs. Given the improved outputs that we have been delivering, this suggests that this analysis further overstates the efficiency gap.

ORR appears to imply that, as we have achieved large savings in the early years of CP3, we should be able to do so again. This ignores the fact that improvements inevitably become more difficult and is clearly inconsistent with evidence that this is indeed the case.

ORR states that it has recognised the many and varied challenges that Network Rail faces in CP4 in assuming that we could reduce the efficiency gap by two-thirds. However, it has presented no evidence to support this assumption and, as we have explained in this chapter, we consider that the resulting efficiency assumption is unrealistic.

### **Assessing the frontier shift**

Having calculated the level of efficiency catch-up, ORR has then added an assumed rate of frontier-shift. This is intended to represent the continual improvement in efficiency (above that reflected in RPI) that would be expected from even the best (or better) performing companies. ORR's assumptions for frontier shift are derived from Oxera's report.

We recognise in principle ORR's arguments relating to long term efficiency improvements from "frontier shift". Our primary concern is the way in which this is combined with other assumptions to produce a result which is implausible in terms of what would need to be achieved in a finite period of time. No economic justification is proposed for ORR's approach of

applying frontier shift to two thirds of the existing gap to other companies. It is unclear as to why and how ORR has applied frontier shift and from where it has taken the regulatory precedent.

In addition, ORR has previously acknowledged the inter-relationship between the allowed rate of return and the assumed rate of efficiency improvement. We are therefore surprised that ORR appears to have combined extremely challenging efficiency improvements with a low rate of return and risk buffer. For example, a one year delay in achieving ORR's efficiency targets for operation, maintenance and renewals would eliminate most of the annual risk buffer proposed by ORR, leaving little further allowance for risks associated with enhancements or financing costs.

We have a number of further concerns about the calculation of frontier shift and its application. ORR has added the savings expected from frontier shift to catch up efficiency. However, the catch up has been derived from benchmarking analysis on overall efficiency improvements (i.e. the aggregate of catch up and frontier shift). It is therefore inappropriate to add frontier shift to the results of its benchmarking analysis.

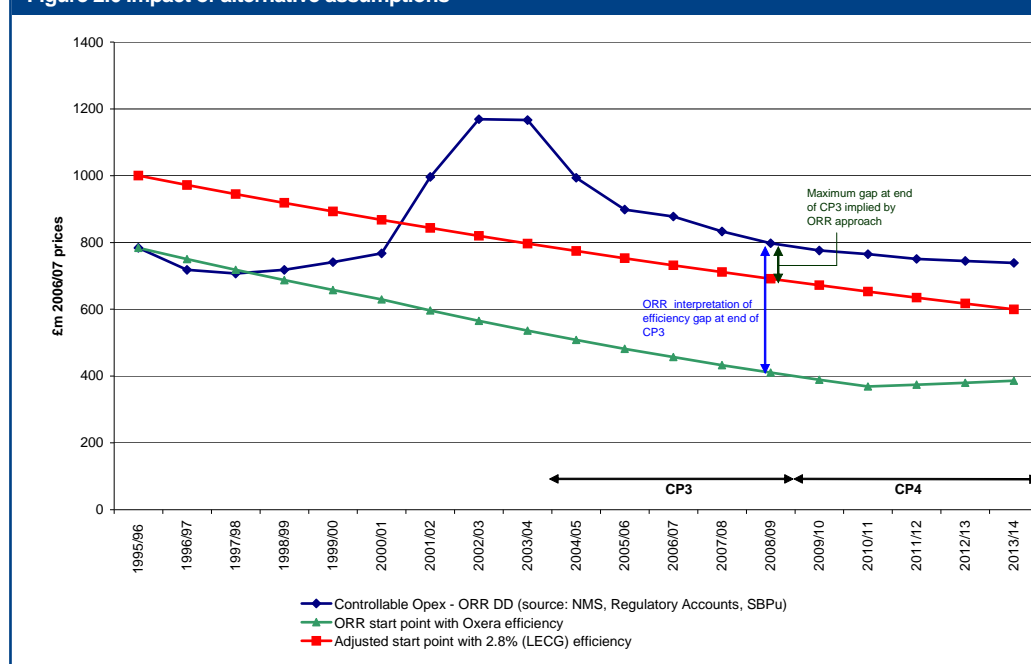
Oxera has attempted to quantify the improvement in total factor productivity (TFP) for rail compared to that being achieved for the economy as a whole. From this, ORR has derived its assumptions for frontier shift. Oxera has assumed that rail is comparable to energy,

water, transport and communications. On the basis of the productivity growth achieved by those industries from 1981 to 2004, Oxera concludes that TFP growth is higher for rail than for the economy as a whole. This includes the period in which those sectors experienced abnormally large post-privatisation productivity growth. There is therefore a danger of double counting that growth by including it in the estimate of frontier shift as it is also included in the assessment of RUOE improvements.

We commissioned Horton 4 Consulting to investigate further the methodology used by Oxera. Horton states that it is unlikely that TFP growth is higher for rail than the economy as a whole. Horton also states that Oxera's analysis does not take into account the abnormally large post-privatisation productivity growth in the comparator sectors. We therefore believe the growth has been double-counted by including it in the estimate of frontier shift. Hence the frontier shift is overstated.

It is also important that the TFP analysis produces robust figures that ORR has confidence in. By broadening the analysis of TFP to include European analysis, Horton demonstrates that TFP growth is lower than Oxera's analysis suggests, and arguably actually lower than economic growth for operating costs. It is difficult to see how ORR can be confident about the values of the frontier shift parameters used based upon the sensitivity to a reasonable

Figure 2.6 Impact of alternative assumptions



change in assumption.

The LECG report provides further evidence that there are flaws in Oxera's analysis, including:

- the nature of work comparators used and the relative weightings applied;
- Oxera's sensitivity analysis indicates that its "base case" is at the higher end of the range but no adjustment has been made; and
- the assumptions used bias the results further upwards.

The original LEK/Oxera study attributed 50 per cent of TFP growth to frontier shift. The Oxera analysis now uses a figure of 75 per cent. This appears to be based on a single academic study and is inconsistent with the average frontier shift target used by other regulators.

We therefore believe that ORR has not provided justification for the inclusion of a frontier shift parameter, and in any case has overstated the potential frontier shift available.

### Summary of benchmarking analysis

The benchmarking evidence upon which ORR appears to rely for its assessment of the efficiency gap is flawed and selective. It significantly overstates the actual gap. Given the range of uncertainty we are particularly surprised that ORR has adopted figures which appear to be at the high end of the range implied by this analysis. These numbers cannot be supported.

### Further evidence used by ORR

Based on the benchmarking analysis described above, ORR has developed assumptions of what efficiency we can be expected to achieve in CP4, based on the extent to which the efficiency gap can be closed in CP4. This is offset by real increases in input prices.

As a result, ORR has assumed that we can achieve annual savings of 3.5 and five per cent in operating and maintenance costs throughout CP4.

As we stated above, we will not be able to achieve significant annual savings in insurance, pensions and signaller costs which account for more than 40 per cent of our operating costs. Therefore, reducing operating costs in line with ORR's draft determinations would require us to deliver annual savings of over seven per cent in other areas over the final four years of CP4. This is double the overall rate assumed by ORR and it has given no evidence to indicate what this would mean in practice. This rate of change is also out

of line with assumptions made by other regulators.

A further issue is that ORR has applied its assumed efficiency profile uniformly across all renewals expenditure. However, there are a number of elements of our renewal plans where our base cost estimates are already based on efficient costs and it is not appropriate to apply further savings. These are typically project costs or one-off bespoke items for which specific and detailed cost estimates have been developed, and in some cases are committed in contracts, rather than repeatable activities for which cost forecasts are based on currently observed average rates and it is reasonable to apply a standard efficiency profile.

The most significant project to which this applies is the GSM-R/FTN telecoms project (£573 million in CP4). The draft determinations appear to acknowledge the issue noting that the FTN and GSM-R projects "are well established and have been the subject of previous efficiency reviews". ORR also notes that some major station projects are continuations of work that started in CP3 and that, having visited the sites, "the estimated costs lie in a range that we consider reasonable".

Other elements of renewals that we believe should not have any efficiency overlay applied are:

- ERTMS development and cab fitment costs (£192 million);
- signalling central contract costs (£160 million);
- King's Cross station (£112 million);
- high output track renewal equipment, for which contracts have been signed (£111 million); and
- the committed discretionary schemes (£86 million).

The impact of applying ORR's efficiency profile to these projects is to reduce the total allowance for renewal expenditure by around £130 million in CP4. This represents a further efficiency challenge that is not deliverable. We believe that ORR should treat these elements of renewal expenditure as being post-efficient.

Our own plan assumes that the pace of efficiency improvement would continue to decline through CP4. We have acknowledged that it is more difficult to assess the potential for efficiency improvement through bottom up analysis towards the end of the next control period. Our plans therefore include an element of "stretch" in each year and we will need to continue to challenge ourselves on what can realistically be achieved

particularly in these later years. However, we believe that the level of stretch implied by ORR is unrealistic. Moreover, it would be wrong for the company to accept more challenging targets in the later years of the control period if this is on top of assumed savings for the early years that are regarded as unrealistic. This is because any shortfall in the early years would not merely eat into the proposed risk buffer but it would also dramatically increase savings which need to be delivered later simply to get back on target.

This view is supported by the results of further work to identify how we can achieve savings over the remainder of CP4. In the following sections we describe some of the further progress we have made in identifying savings and also respond to the studies commissioned by ORR to support its efficiency assumptions. These include ORR's studies on:

- best practice maintenance and renewals;
- staff costs;
- operations and customer service costs;
- insurance costs; and
- pension costs.

We have also commented on other operating income (which are part of controllable operating costs) and non-controllable costs.

These studies do not provide robust evidence to support ORR's efficiency assumptions. Some of the analysis is flawed, while other parts have been used inappropriately in supporting ORR's overall conclusions.

### **Best practice maintenance and renewal**

In 2007, ORR carried out its own study of international best practice techniques and initiatives. It subsequently commissioned RailKonsult (the consulting arm of Balfour Beatty) to examine whether any technologies and working methods used in Europe could help account for the perceived cost gap between Network Rail and the comparators used in the LICB study. We are committed to benchmarking ourselves internally and externally and we welcome further benchmarking analysis.

RailKonsult has based its assessment on the following areas of activity where it believes we fall short of the European standards of best practice:

- the partial renewal of switches and crossings;
- reduced trackside inspection strategies;
- the recycling of trackside materials;
- the use of dedicated teams for track renewal;
- the use of a formation rehabilitation train;

- the use of pre-fabricated platforms; and
- the use of flash butt welding and heat stressing plant.

We have reviewed RailKonsult's report to assess whether it identifies significant incremental efficiency opportunities.

RailKonsult states that we could achieve 25 per cent efficiency by using Comparon lightweight platforms in our platform lengthening programme. This is not part of our renewals programme, but rather part of a series of enhancements. Therefore we do not believe that the inclusion of this element of RailKonsult's analysis supports ORR's proposed efficiencies for maintenance and renewals. However, we have assessed it later in this section from the perspective of our enhancements programme.

We are also concerned that for lightweight platforms and the formation rehabilitation train RailKonsult's analysis relies entirely on estimates of costs and benefits supplied by the manufacturer of the technological solution proposed. This may not reflect the actual costs of implementation being experienced by infrastructure managers.

The report has identified some new areas of best practice that could deliver future savings. However, many of the initiatives identified by RailKonsult are already reflected in our plans, including, for example, partial renewal of switches and crossings (S&C). In the SBP we described a planned increase in partial renewals of switches and crossings which will deliver a saving of around 15 per cent of S&C costs. This compares favourably with the 13 per cent savings that RailKonsult believes can be achieved over the same period.

Our asset inspection teams have strong links with their counterparts in Holland and our improvement plans in this area draw on Dutch experience. Indeed, for track inspection our plan includes higher savings than the level proposed by RailKonsult. Similarly, our plans for CP4 already take account of our extensive recycling operation. RailKonsult does not quantify the majority of the efficiencies that it believes can be made from the reuse and recycling of trackside materials. We believe that our recycling systems are already at least as good as those described by RailKonsult for sleepers, points motors, and other signalling assets. RailKonsult states that we can achieve further annual efficiencies of £8.8 million from refurbishment of rail. We note that much of our rerailing is due to rail fatigue

defects, including rolling contact fatigue, which would make the rail unsuitable for cascade to a lower category route. That notwithstanding, we question the assumption that 37 per cent can be saved by using refurbished rail and we do not believe that this analysis takes into account fully the shorter asset life of refurbished rail and the consequential reduction in time between renewals. Furthermore, we are unconvinced that the possible increased maintenance implications have been sufficiently taken into account in RailKonsult's analysis. In addition, the analysis does not take into account the investment cost associated with the creation of a rail refurbishment facility, and it is unlikely that the timeframe required for the necessary capital investment would enable efficiency savings in CP4.

In CP4 we intend to use dedicated teams for our modular S&C initiative and the 8/200 workstream in addition to our existing specialist teams. We do not believe that there are significant further opportunities to reduce costs by increasing the number of specialist workers, and therefore believe that the efficiencies identified by RailKonsult are already included in the SBP.

We have ongoing contact with the manufacturers of the formation rehabilitation train and we have been examining German welding techniques. However, we recognise that we do not currently have plans to increase the use of ballast cleaners, or for the introduction of a formation rehabilitation train. Our previous analysis of replacing traxcavation with high output methods leads us to understand that the savings possible for that type of work are in the order of 20 per cent rather than RailKonsult's 40 per cent. This would equate to an annual saving of around £4.5 million. However, we have established from the manufacturer that the cost of adapting the train to operate on the UK network, and the provision of its associated wagons, would be around 25 per cent higher than that quoted by RailKonsult, at around £40 million. This would make the financial case for the acquisition significantly weaker. If we were to implement these recommendations, we do not believe that the proposed timescales are realistic and believe that the total time to procure and bring such a system into use would be around 40 months. Even so, we recognise that there may be a case for the introduction of a formation rehabilitation train in future, and we will continue to investigate this.

RailKonsult's analysis on platform lengthening is based on a comparison between costs for a

single platform extension at Hitchin provided by Arup and costs provided by the manufacturer of Comparon platforms. We note that 40 per cent of the difference is based on the assumption that we would have lower administration costs if we used the Comparon platform. We have seen no evidence to support this assumption. Once these administration costs are removed the cost differential between Network Rail and Comparon platforms falls to approximately 15 per cent. We would suggest, that based on a sample of one platform, this is well within the margin of error for cost estimation.

Furthermore, we believe that the scope for efficiencies in our platform extension programme is overstated. Our programme for CP4 is around £380 million. However, much of this spend will be on work related to platform construction, such as the relocation of station buildings, and electrical and signalling infrastructure. Less than one third (around £127 million) of this will be spent on the construction of the platforms themselves. If every platform extension planned could use the Comparon product then, based on a 15 per cent unit cost savings, the total efficiency available to Network Rail is around £19 million compared to the £93 million implied by the RailKonsult analysis.

Moreover, Comparon products are not suitable for many of the platforms we intend to extend. We considered the use of Comparon at White City but found it unsuitable due to the curve of the platform, and the need to maintain access to pre-existing ground level cabling. Therefore, while we believe Comparon platforms have a role to play as one modular solution among many, we do not believe that this analysis demonstrates a significant efficiency opportunity.

The use of mobile flash butt welding (MFBW) and heat stressing is cited by RailKonsult as having the potential to deliver annual efficiencies of around £9 million. We are already trialling the use of MFBW and have committed in our plan to a minimum of 50 shifts in 2009/10 in order to assess the most effective uses of this technology. Therefore the element of efficiency that may be delivered by MFBW when used in isolation is already included in our efficiency projections. We are investigating the use of heater trolleys but are yet to be convinced of their effectiveness in our track renewals processes.

We note that MFBW cannot be used in all circumstances. RailKonsult supports this and correctly points out that MFBW is most effective when used in conjunction with the high-output



stressing of rail. This technique is best used on long re-railing jobs, and occurs most frequently when new track is being constructed. It is therefore only suitable for part of our re-railing activity. We believe that RailKonsult has over-estimated the number of instances in our renewals plan where this occurs and therefore the potential efficiency saving is over stated.

RailKonsult acknowledges that the financial appraisal of its recommendations are rudimentary and do not include investment costs. Any assumption of efficiency savings need to take into account the required investment and other operating costs. We do not believe that it has fully considered all of the practical implications associated with the introduction of new practices and technologies. For example, it has not taken into account the capital cost of the logistical support required for the use of a formation renewal train. Therefore we believe that the evidence provided is insufficient to support its conclusions on the level of additional efficiencies that may be available.

ORR appears to have used RailKonsult's analysis of seven specific areas to support a conclusion on efficiency for all maintenance and renewal activity. This is not appropriate. RailKonsult's report was based on a review of practices that have not yet been implemented in Britain. It has taken no account of areas where such opportunities do not exist.

There are many areas where we are already leading world in the development of best practice. These include:

- the use of laser surveying techniques;
- automated video recognition technology for sleeper inspection to reduce the amount of foot patrolling required;
- our research relating to the wheel-rail interface and deployment of state-of-the-art electric lubricators to reduce maintenance costs; and
- the use of Snakemaker surveying software in conjunction with laser surveying technology to restore the original track alignment, enabling us to reduce the frequency of track geometry maintenance.

This reinforces the view that the efficiency gap has been overstated.

Since publication of the SBP update, we have continued to carry out further benchmarking of track renewals costs with other European railways. This work is ongoing but we expect it to

provide further support for our view that the efficiency gap has been overstated.

### **Employment costs**

ORR commissioned Inbucon to benchmark our employment costs. It concludes that they are between 15 and 20 per cent above comparable market rates. However, we have not been provided with details of the comparator companies as the data is confidential. This lack of transparency means that we are unable to assess whether the comparator companies are appropriate. The report separately analyses the costs of signallers, maintenance, and management and support staff. The analysis of signaller and maintenance costs suggests that our overall employment costs are between 18 and 35 per cent higher respectively than Inbucon's benchmarks. For management and support staff costs, Inbucon concludes that our costs are consistent with its benchmarks.

Inbucon's analysis is based on the total cost of employment, including allowances, bonuses and overtime. Allowances and bonuses are part of the basic salary entitlement, while overtime is only paid for additional hours worked. However, our costs include the cost of working at nights and weekends. It is not clear whether the comparator companies are also required to work at these times. In developing a benchmark of average cost per employee, it is reasonable to include allowances and bonus. However, it is not appropriate to include overtime in developing an average cost per employee. Overtime can significantly increase earnings for individuals. It also enables efficient and flexible resourcing, and effective management of vacancies.

In developing benchmarks, it is also important to understand that maintenance allowances reflect increasing skills for specific jobs, many of which are based on the competency of the individual.

For signallers, operating and maintenance staff, the inclusion of allowances and bonuses (but not overtime) shows that our average employment costs are broadly in line with the Inbucon market average. Indeed, even if we were found to be overpaying, it is not possible to decrease salaries in the short term. Hence, salary comparisons cannot be directly translated into efficiency gaps. We therefore do not believe this analysis provides any evidence to support ORR's efficiency assumptions.

### **Operations and customer services costs**

In April 2008, ORR commissioned Winder Phillips Associates (WPA) to investigate possible



efficiencies in our operations and customer services function. WPA identifies a number of areas where it believes there are opportunities to reduce spend in CP4.

We welcome the WPA analysis and have reviewed the proposed initiatives and estimated savings. It identified potential savings that increased to £41 million by 2013/14. Many of the suggestions made by WPA are consistent with our own ongoing analysis. While in some areas we have identified higher savings than WPA, a key concern is that it will take longer to achieve these savings than WPA suggests.

WPA has assumed that annual savings of £4 million could be achieved in the overheads of our routes through further benchmarking and good housekeeping. We recognise that there are differences in the cost of each route. This largely reflects differences in the nature and complexity of each route. However, there will be opportunities to achieve savings as a result of the centralisation of the Safety Management Information System (SMIS) and rostering systems. There may also be further efficiencies available as a result of the implementation of the Performance Systems Strategy (PSS) which is currently being planned. The assumed savings are therefore likely to be reasonable.

WPA also identifies savings of £5 million as a result of the implementation of the Integrated Train Delay Attribution System and Integrated Train Planning System, which is higher than the amount included in our SBP. These are again broadly reasonable, although this is largely due to delays in these projects which have resulted in the savings being deferred from CP3.

In our SBP, we indicated that there may be an opportunity to reduce the number of mobile operations managers (MOMs) which would result in significant cost savings. WPA has included these savings in its assessment. If we were to implement this proposal, we believe that the annual cost reductions would be at least £5 million lower, and would take longer to implement than WPA has assumed. However, at this stage we are not convinced that this is the right way forward. In CP4 we must deliver a significant improvement in performance and MOMs play a key role in managing the impact of incidents. The implications of savings in this area for maintenance costs would also need to be considered. Reducing this resource may therefore not be the right strategy and any savings need to be considered from an overall business perspective.

WPA assumed that rationalisation of managed station and control office staff could deliver savings of £2.5 million. We do not believe that there are significant changes that we will be able to agree with TOCs to reduce our costs on managed stations. Furthermore, any savings that we achieve on managed stations would result in lower income from TOCs. Our assumed cost and income therefore need to be consistent with each other.

WPA has assumed that we can achieve savings of £2 million through benchmarking and improved signaller productivity. This is broadly consistent with the assumption in the SBP. However, we believe that this will be extremely challenging as we have used our signalling benchmarking tool to deliver benefits during CP3 and believe there are few remaining opportunities to deliver savings. WPA has assumed that we can improve productivity through, for example, through improved management of sick leave. We have already reduced this to an average of three per cent which we believe is well below industry averages.

WPA has also included savings of £8 million as a result of resignalling schemes that are included in our renewal plans. Its analysis has been based on schemes that are in the early stages of development and are therefore not robust. While we recognise that some of these schemes will result in consolidation of signal boxes, there are also conflicting pressures (such as recent ergonomic standards) which are resulting in an increase in costs. We therefore believe that these savings are overstated.

Finally, WPA has included savings of up to £6 million for development of world class processes. This has been based on the analysis of the overall stretch required to achieve the operating cost savings in our plan, rather than specific analysis of what can be achieved in operations and customer services. Many of the specific savings identified above by WPA are the result of the development of world class systems and processes. It is therefore clear that this additional saving represents a double count and should be excluded.

Our latest forecast of annual savings in operations and customer services (which includes consideration of the WPA report) is £34 million by the end of CP4, which is still less than the amount that we included in our SBP update. This is also significantly less than the implied savings of £58 million that would be

required to achieve annual reductions of 3.5 per cent consistent with ORR's assumption.

### **Insurance costs**

ORR considers that we have incorrectly excluded business interruption insurance claims from our plan. We accept this and have adjusted our plan. However, we do not understand the basis of ORR's estimate of £30 million. Our analysis shows that the cost of business interruption claims is expected to be around £25 million. This has been validated using actuarial modelling carried out by Aon.

ORR commissioned Heath Lambert to review our insurance costs. It concluded that we could reduce annual insurance costs by around £8 million based on a change to the level of policy excesses.

We do not accept that we can achieve further annual savings of £8 million through improved claims handling and increased policy excesses. Heath Lambert's conclusion ignores the resulting increase in self-insured costs and additional claims handling costs within Network Rail that would offset the identified savings.

We also note that there is an error in the calculation which reduces the figure to £6.6 million.

Heath Lambert's report was largely based on an assessment of our historical insurance arrangements and not our planned insurance arrangements for CP4, which we provided to ORR with our SBP update. It therefore does not take account of the wider benefits of the new insurance strategy, which is reflected in the insurance cover that we have recently agreed for the whole of CP4. In doing this, we have restructured our insurance policies to provide more effective and efficient claims handling. This is being acknowledged as an innovative and effective approach within the insurance industry.

We have provided additional analysis to ORR including an independent assessment from our insurance advisers.

### **Pensions**

In developing its assumptions for operating cost savings, ORR has not taken into account the expected changes in the cost of pensions. There are currently two pension schemes, with a third being introduced this year:

- Railway Pension Scheme (RPS) – a defined benefit scheme;

- Network Rail Defined Contribution scheme (DCS) – a money purchase scheme; and
- the Career Average Rebased Earnings (CARE) scheme.

We expect to reduce headcount to achieve efficiency savings and this would result in a reduction in pension costs. However, this is offset by an increase in the number of people transferring from the DCS to the RPS. New employees join the DCS. After five years of membership, employees can transfer from DCS to RPS. Introducing the DCS scheme has reduced pension costs. However, as the DCS has only been in operation for four years, employees will only start to transfer in larger numbers to the RPS scheme during CP4, which will increase pension costs. While we reflected this in our plans, ORR has not taken this into account in its analysis.

An actuarial valuation for the RPS is due imminently. Rising life expectancies have resulted in an increase in costs for all defined benefit schemes in order to meet the rise in anticipated liabilities. We are currently reviewing the future funding of the RPS. We currently anticipate that employer contributions for the RPS will need to rise from 17 per cent to nearly 19 per cent of employee wages from July 2009.

The introduction of the CARE scheme meets a key recommendation of the Pensions Commission, which considered the long-term future of how to provide fair and affordable pensions. It is expected that this scheme will be available to all new starters as an alternative to the DCS. The cost of the CARE scheme is still being assessed but it is anticipated to fall between the RPS and the DCS. If new employees elect to join the CARE scheme this will increase short term pension costs, while there will be longer term savings with more people joining the CARE scheme rather than the RPS.

We therefore believe that pension costs will increase during CP4, possibly by more than we have currently planned. ORR should take this into account when developing its efficiency assumptions. In Chapter 3, we also note that our renewals plans incorrectly excluded capitalised pension costs.

### **Other operating income**

ORR considers that we have understated other operating income (which is included in controllable operating costs) in the SBP by incorrectly assuming it will reduce in line with our

efficiency assumptions. It did not make any adjustment for this but presumably took this into account in developing its efficiency assumptions. We recognise that ORR is likely to be correct for some aspects of this income, such as the sales of scrap. However, the majority of other operating income is based on recharging costs that we incur. These costs would be expected to reduce in line with our overall efficiency savings.

### **Non controllable opex**

ORR has reduced our assumed share of the annual cost of funding British Transport Police (BTP) by £5 million from £58 million to £53 million. ORR has included no explanation for this further reduction in its draft determinations.

BTP provides industry-wide security for the entire network. Its costs reflect the level of activity it undertakes. The setting of the BTP overall budget is challenged by a cross-industry group and its funding is allocated across the industry using a sophisticated modelling process.

The costs of BTP are forecast to remain constant in real terms. Given the wide range of influences on BTP costs, such as terrorist threats, and that ORR has stated Network Rail should bear the risk for any fluctuation in these costs, it is inappropriate for ORR to arbitrarily reduce the cost estimate.

### **Latest initiatives and efficiency plans**

Since publication of the SBP update, we have continued to develop our plans to achieve savings in CP4.

We are developing a number of key initiatives to achieve reductions in operating costs during CP4. Efficiencies can be found within existing functional processes, through cross-functional process improvements and at the highest level through shaping the business to optimise operational efficiency. The programme sets out to bring together all possibilities for efficiencies in an appropriate structure and give a complete picture of the achievable level of operating cost savings for CP4. It also provides a framework from which action plans can be developed to deliver these efficiencies, with benefits, dependencies and risks.

We have identified a number of key initiatives in the first stages of this process. The potential reduction in annual costs by the end of CP4 is around £50 million, before taking into account the impact of real input price inflation, which represents a reduction of around of controllable operating costs (excluding signallers, insurance

and pensions). This is less than the efficiency savings of £75 million (17.6 per cent) included in the SBP update.

These savings do not include the investment and severance costs required to deliver these. Many of the above improvements require investment in IT systems to streamline processes and reduce headcount.

We have started a programme to rationalise the number of initiatives and improvement projects that exist in the business and improve the focus on the key activities required to deliver our CP4 targets. We will focus our improvements around six major areas:

- **asset management** – a root and branch review of the way we manage our assets, optimised for whole life cost of the whole system (including trains) and prioritised to support efficient infrastructure delivery and network operations;
- **asset information and decision making** – improved access to information through train-borne data capture and other automated processes;
- **efficient infrastructure delivery** – process streamlining to improve contracting and delivery of our renewal, enhancement and maintenance programmes, through standardised and modular techniques delivering a seven day railway;
- **network operations** – development of our operating strategy through improved use of technology and streamlined processes;
- **service delivery** – improving our service to all our stakeholders; and
- **organisational effectiveness** – streamlining the business to deliver operating cost savings as described above and improving our capability to deliver change.

By focussing on these six initiatives we believe we will get faster, more effective delivery of the changes required to achieve our key CP4 objectives.

### Real input price inflation

We welcome ORR's recognition that we will incur incremental costs as a result of real input price inflation and the inclusion of assumptions to reflect this within its efficiency assumptions.

We note ORR's concern that the lack of an econometric model is a shortcoming. We do not believe this to be correct as:

- a long time series of data is required to establish an econometric relationship, and the industry has been through significant structural changes. These changes are highly likely to have altered the balance between supply and demand and the inflationary characteristics of the industry, so data from earlier years may be misleading;
- specific supply markets from which we draw can be the subject of one-off or localised changes in supply or demand, such as the London Underground Public Private Partnerships, the 2012 Olympics and the level of foreign worker immigration into the industry, which would not necessarily be taken account of in an econometric model; and
- our inputs include significant expenditure on traded commodities for which econometric models do not provide robust forecasts over the necessary time period due to factors such as the impact of speculation and uncertainties in future aggregate demand for the commodities.

In the SBP update, we provided an update to our projections for real input price inflation based on analysis by LEK. This indicated that overall input price inflation had increased from one per cent per year to 1.1 per cent, which is around £70 million over CP4. We made no adjustment to our plan for this on the assumption that separate arrangements would be put in place to enable us to manage this risk. ORR has proposed no such arrangements and has not taken this increase into account in its draft determinations.

We continue to be concerned that input prices are continuing to increase significantly and that there is a risk that we have understated this in our plan. This is illustrated by recent increases in the cost of steel.

We purchase steel in many forms, most notably rail (183,000 tonnes per year) and steel sleepers (29,000 tonnes per year), but also switch and crossing components, track clips, reinforcing steel, and for use in bridges and general construction. The price of steel has increased by 13 per cent in the five months to June 2008

(based on an index for manufacture of basic metal and fabricated products) and by 49 per cent since January 2004. As a result of this rapid increase, our suppliers are no longer able to supply us at the agreed contract price and we have therefore negotiated amended contracts. These still use the index and will therefore follow the trend in steel prices.

We have run a number of scenarios modelling the impact of changes in the index on the cost of steel rail and sleepers. If the trend of the increase over the last year (14.7 per cent compared to average increase of 11.7 per cent in CP3) were to be repeated, our CP4 costs would increase by £203 million. Continuing the trend of the last six months would lead to an increase of £573 million.

Although we are confident that the input price impact forecasts produced by LEK are credible, there are significant risks that there may be a large deviation from these forecasts, particularly for material costs. This risk is likely to be asymmetric, as it is more likely that input prices will be significantly higher (rather than lower) than RPI. However, we recognise that some commodity prices have fallen in the past few weeks which highlights the volatility of input prices.

We are therefore concerned about ORR's proposed treatment of increases in input prices when assessing expenditure to be logged up to the RAB. We provide further details of our proposed approach in Chapter 5 of this response.

The Railway Industry Association (RIA) believes that we should be working on an assumption of two to three per cent input price impact each year.

### Investment required

The delivery of significant reductions in efficiency requires some investment in technology or other enabling activity to deliver ongoing savings in operating costs. However, in its assessment of the required levels of activity ORR has excluded a number of the enabling investments that were in our SBP. This is in addition to the investment which we had excluded from our plan pending further analysis of their business case.

ORR has significantly reduced expenditure on corporate offices. The allowed spend is insufficient even to bring our existing portfolio up to standard, and would not enable the proposed investment in alternative sites which both delivers

savings in corporate office costs and enables wider efficiency savings to be achieved.

A number of IT projects totalling £150 million have been excluded, largely on the basis that projects are at an early stage of development so there is considerable uncertainty in their scope and cost.

We recognise that the level of justification for some schemes that we provided in support of the SBP was insufficient and we have therefore provided ORR with further information, clarifying the scope of activity and the benefits that will be generated.

In addition, any incremental efficiency savings beyond those included in the SBP would almost certainly require further investment as well as provision for redundancy costs. We included a total of £25 million in our plan for CP4 on the basis that much of the cost reduction could be achieved through reallocating maintenance staff to investment projects and staff turnover. As a result of its approach to operating costs, ORR has excluded redundancy costs of £16 million from our plan. It has also not included any additional expenditure to achieve the higher savings in the draft determinations, although it is unlikely that we would be able to deliver significant additional enabling schemes to deliver benefits in 2009/10. As a result, the draft determinations do not constitute a complete package as the proposed efficiency savings are dependent on investment that is not funded.

ORR has proposed that such investments could be addressed through the investment framework with justified expenditure being logged up to the RAB. We welcome ORR's confirmation that this would include investment required to deliver the efficiencies and other improvements assumed in the periodic review. However, it is important that appropriate funding is provided in the final determinations where we demonstrate now that the case for this investment is well developed. In addition, we require further clarification on the criteria which ORR would apply for logging up this type of investment so that we are able to deliver the required improvements and plan our business with a reasonable degree of assurance.



### 3 Renewals activity volumes

#### Summary of ORR's approach and findings

ORR has reviewed the renewals activity volumes included in our plans and has made a number of adjustments to reduce activity levels. The overall impact of these adjustments is a reduction in pre-efficient activity-based expenditure of seven per cent (£847 million). The adjustments by renewals type are summarised in Figure 3.1.

#### Our response

We have assessed each of the adjustments proposed by ORR to determine whether the proposed levels of pre-efficient activity will deliver the required outputs over CP4.

We believe that the basis for some of ORR's proposed adjustments to renewal volumes is flawed and double counts scope efficiencies which are also included in its top down efficiency assumptions.

The delivery of significant reductions in efficiency requires some investment in technology or other enabling activity to deliver ongoing savings in operating costs. However, in its assessment of the required levels of activity ORR has excluded a number of the enabling investments that were in our SBP. This is in addition to the investment schemes which we had excluded from our plan

pending further analysis of their business cases.

We detail in the following sections our response to each of ORR's proposed adjustments.

#### Information technology

The SBP structured our information technology (IT) requirements into four categories: asset management; traffic management; operational effectiveness; and core renewals. A number of projects totalling £150 million have been excluded, which is a reduction of around 30 per cent. These changes are summarised in Figure 3.2. From the detailed breakdown supplied to us by ORR, this reduction comprises a number of elements:

- projects adjusted for risk;
- projects adjusted to reduce cost;
- projects deferred to CP5;
- projects to be funded during CP4 through the investment framework; and
- projects with insufficient justification.

Many of these investments are fundamental to improvements in asset management and improved operations, and support delivery of the required CP4 outputs and projected traffic growth. In some cases, train operators also depend directly on the relevant systems.

Furthermore we are being asked to grow systems capacity by 25 to 30 per cent, while

**Figure 3.1 Renewals (pre-efficiency)**

£ million (2006/07 prices)	SBP update	ORR	Difference
IT	488	339	150
Corporate offices	90	40	50
Track	3992	3819	173
Civils	2198	1895	303
Signalling	2565	2454	110
Telecoms	887	869	18
Electrification	684	664	20
Plant and machinery	402	394	8
Operational Property	1480	1480	-
Other	80	80	-
Discretionary investment	86	68	18
<b>Sub-total</b>	<b>12,951</b>	<b>12,104</b>	<b>847</b>
7-day railway	-	56	-
<b>Total</b>	<b>12,951</b>	<b>12,160</b>	<b>847</b>

**Figure 3.2 IT renewals (pre-efficiency)**

£ million (2006/07 prices)	SBP update	ORR	Difference
Asset management	190	170	20
Traffic management	148	41	107
Operational effectiveness	21	12	9
Core renewals [KTSR]	130	116	14
<b>Total</b>	<b>488</b>	<b>339</b>	<b>150</b>

driving out efficiency savings of some 21 per cent over the control period. Organisations facing such a scenario typically would see their investment in information technology increase over the period rather than decrease by some 40 per cent (in comparison with CP3). We have therefore included in this response external benchmark data relating to similar organisations and their level of investment in information technology.

We recognise that the level of justification for some schemes that we provided in support of the SBP may have been insufficient but we are also concerned that the information we have provided has not been fully taken into account. We have therefore set out below further information, clarifying the scope of activity and the benefits that will be generated.

In addition, any incremental efficiency savings beyond those included in SBP would almost certainly require further investment. ORR has not included any additional expenditure, although it is unlikely that we would be able to deliver significant additional enabling schemes to deliver benefits in 2009/10.

ORR has proposed that such investments could be addressed through the investment framework with justified expenditure being logged up to the RAB. We welcome ORR's confirmation that this would include investment required to deliver the efficiencies and other improvements assumed in the periodic review. However, it is important that appropriate funding is provided in the final determinations where we demonstrate now that the case for this investment is well developed. In addition, we require further clarification on the criteria which ORR would apply for logging up this type of investment so that we are able to deliver the required improvements and plan our business with a reasonable degree of assurance.

### **Benchmarking**

We have continued to develop cost benchmarking data. Globally, annual IT spend is increasing by between two and nine per cent per year for similar sized organisations. Global utility organisations are projecting annual increases of 5.1 per cent in IT costs from 2006 to 2011. Over the same period, UK utility organisations are projecting annual increases of 5.9 per cent, with core renewals increasing by seven per cent and development and integration increasing by 9.9 per cent.

Our IT expenditure in CP3 totalled £480 million. The proposed funding in CP4 totals £292 million,

which represents a reduction of almost 40 per cent. This level of reduction is inconsistent with evidence of increasing IT spend in other comparable businesses.

The key IT investments of comparable utilities organisations are:

- deployment of advanced metering infrastructure and network modernization initiatives;
- increased spending on work and asset management, energy management and SCADA;
- operational efficiency and regulatory compliance driving investments in work and asset management, mobile computing and resource optimisation;
- environmental concerns, sustainability and security (both physical and information); and
- increased alignment of IT portfolios with innovation and business process improvement.

While elements of this spend will be related to retail, the key drivers relate to asset management, regulatory and environmental needs. This indicates that the trends in IT investment in other organisations are also applicable to Network Rail.

### **Asset management**

This investment supports the development of a mature asset management regime, improved unit and whole-life costing, delivery of future efficiency savings, increased usable network capacity and improved train performance through improved asset reliability.

Our plan included £190 million of IT expenditure relating to asset management, which ORR proposes to reduce by around £20 million. Our plans support the development of our asset management capability, and these schemes would enable:

- integration of asset information to improve asset performance, so that our information includes "one version of the truth";
- moving from a "find and fix" to a "predict and prevent" railway; and
- integration of work, inventory, resource planning, access (possessions) and procurement.

ORR's proposed reduction comprises three elements. The first, totalling £12.2 million, is a risk reduction factor which has been applied to a number of asset management projects. ORR

has reduced our estimated expenditure on the basis that the early stage of development of most of the projects implies that there is significant scope for reduction in cost as the full scope of the projects evolves, as the risks associated become more clearly defined, ORR believes that they will be mitigated, reducing the cost. We recognise that these schemes are at an early stage in their development. However, ORR has provided no evidence to support actionist assumptions, and it does not acknowledge that the costs in these projects may also increase as the scope becomes more clearly defined. The application of a blanket reduction is effectively a further efficiency saving in IT costs that will result in a disproportionate reduction in benefits delivered to the asset management programme.

The second element of reduction relates to the fault management system (FMS) which ORR proposes should be deferred to CP5 (£3.7 million). This project is essential to support delivery of our asset information strategy, providing improved structure and functionality to improve the system's usability and therefore effectiveness. The project will also establish an effective interface between FMS and TRUST. This will allow train delays to be traced back to asset failures and will therefore support the targeting of reliability improvements. Our plan is consistent with recommendations made by the asset management reporter (AMCL) for the improvement of our fault management systems. We therefore consider that it is essential that this work is undertaken during CP4.

The third element (£2.4 million) relates to the corporate network model (CNM). CNM is pivotal to our strategy, providing the means of integrating information from across the organisation and making it available to both internal and external stakeholders. Recent engagement with external stakeholders has confirmed that the developments included in our plans are the minimum needed to meet reasonable requirements. For example, we now have a clearer view of the demand for access to CNM, which exceeds our earlier estimates, from train manufacturers, freight and train operating companies, DfT and other industry partners.

While we recognise that there is some uncertainty in the required level of funding for this category, we believe that given the portfolio of projects included in this category a reduction of this type and magnitude is inappropriate.

### **Traffic management**

Our plan included £148 million of IT expenditure relating to traffic management. This is supportive of our wider role of industry leadership in this area and will also be an enabler of any evolution of our operations strategy. Although such evolution is currently aspirational we must begin to develop the options very early in CP4. ORR proposes to reduce our available funding by around £107 million. ORR has proposed funding of £96 million of this reduction using the investment framework. This covers the development of the controls toolset, merging of control systems, and automatic route setting (ARS) and simulation. ORR also proposes a reduction in the cost of the enhanced train reporting system from £26 million to £15 million. ORR has presented no evidence for this reduction, describing it only as "adjusted to reduce cost". This is a significant concern as the feasibility analysis for these schemes is largely complete and specific solutions are currently being assessed.

A reduction in funding will have a significant detrimental impact on our direct and indirect customers. We believe that full funding of this investment is required through the periodic review as the work needs to start early in CP4 and is an important element of supporting the achievement of increased performance, efficiency and capacity. The purpose of these projects is to enable:

- integration of planning, control and signalling to provide the full management of trains in real-time rather than reactive responses to incidents;
- increased performance and reduce industry delay minutes by providing the ability to recover rapidly in the event of perturbation on the day (faster recovery from perturbation would mean less time has to be allowed within the timetable);
- greater efficiency through the signal box estate; and
- increased capacity through faster recovery from perturbation allowing more effective use of all of the time available in the timetable. This requires the collection and analysis of more detailed information of train movements which would enable feedback from real performance against the current timetable leading to enhanced timetable planning.

These systems and this information may also be made available to train operators to help deliver improved services to the wider rail industry.

ORR has included expenditure that would support the migration of the legacy systems from their current obsolete and increasingly difficult to maintain mainframe computer platform to a modern and adaptable system. However, this would involve only the existing legacy applications (e.g. TOPS & TRUST). Therefore, there would be limited scope for enhancements such as the inclusion of greater detail of train movements, which would limit the potential improvements to real-time monitoring, timetable improvements, and ultimately capacity. In addition, due to the inability to deliver such enhancements, legacy migration in isolation is unlikely to be cost efficient.

### Operational effectiveness

Our plan included £21 million of IT expenditure relating to operational effectiveness, which ORR proposes to reduce by around £9 million. Our plan would enable process improvements across many functions as a result of multiple IM developments including use of enterprise resource planning, efficient management of continuous processes, and the development of innovation in information management. These projects support the delivery of efficiency savings to reduce our operating costs.

A significant area of expenditure that would be affected by ORR's proposed reduction would be innovation within information management, which would be reduced by around £4.4 million. This expenditure is used to develop ideas so that we can understand where new and evolving technologies can be best utilised to reduce costs or increase operational effectiveness. Without this investment, we are restricted in our ability to explore opportunities for future savings. This is illustrated by savings resulting from similar developments in the past, which include:

- introduction of handheld technology to reduce manual recording and subsequent data entry into enterprise systems;
- streaming video (collected via the measurement train) to reduce the need for line side visits;
- collaboration technologies to provide better industry and third party working, resulting in project teams no longer needing to co-locate;
- rugged lineside equipment to allow data collection and remote transmission of information, for example, intelligent infrastructure collectors, automated forms for data acquisition; and
- development of the knowledge hub, a portal solution used to share best practice across

multiple disciplines through out the organisation.

### Core renewals

Our plan included £130 million of core IT expenditure for management of the current systems. ORR proposes to reduce this by around £14 million. Our plan includes investment to refresh the technology that we use (e.g. servers, printers, desktop and mobile, operating systems), upgrade the capacity of our systems, and renew software licences (e.g. Oracle, Microsoft). The aim is to provide IT services at the same levels of performance and integrity as experienced today.

While some of these projects are in early stages of development (e.g. the printer refresh programme), others have well developed plans. This investment will enable us to manage our operational service costs by providing up-to-date systems and platforms that are supportable and maintainable.

Our cost estimates have been based on market research and external benchmarking, and our own previous experience in competitive procurement.

The proposed reduction in expenditure would result in reduced investment in large servers. This equipment is required to provide increased data capacity and better data integration.

Our current policy is to update our core IT infrastructure every three to five years depending on the infrastructure type. The primary drivers for this approach are as follows and this is entirely consistent with best practice elsewhere:

- refresh cycles fall in line with industry best practice (based on research from Gartner and The IT Forum);
- reduced operating costs as hardware maintenance costs increase as hardware falls out of mainstream warranty (usually during the fourth year of support);
- reduced system failures – research from Gartner highlights that 50 per cent of infrastructure within this category will suffer component failure after the first three years of service (this may not be critical but it will affect service); and
- reduced technological obsolescence (i.e. new software or applications require higher specification hardware).

This same technology replacement policy applies to the midrange estate. However, ORR's proposed reduction in expenditure would require

us to delay some IT replacement, which would be expected to increase operating costs and the risk of systems failures.

We have demonstrated to ORR that our projected spend in these areas is consistent with both historic trends and these underlying policies.

There is continuing growth in the demand for IT capacity. In addition, the introduction of new applications and services require additional capacity. Typical examples include:

- the expansion of our enterprise resource programme to enable additional modules to be activated (e.g. human resource self service systems, web based tendering for procurement, web based recruitment systems);
- internal information systems, for example, intranet and document management, and collaboration with industry stakeholders and trusted third parties;
- deployment of new applications such as Intelligent Infrastructure to enable the evolution of maintenance regimes to a “predict and prevent” model; and
- growth of around 135Tb in high end data storage and around 780Tb in low end data storage over the last five years.

We are also required to retain some information for very long periods. This is illustrated by information still being requested relating to Hatfield (October 2000) and Ladbroke Grove (October 1999). The data that has to be maintained includes the majority of operational

systems, such as asset management systems, email, national video surveys, file servers and document management. Legacy data is archived wherever possible, using cheaper data storage.

Figure 3.3 highlights the current rate of growth in both the primary (high end storage) and secondary (low end storage) storage areas. This does not take into consideration additional growth for “predict and prevent” initiatives.

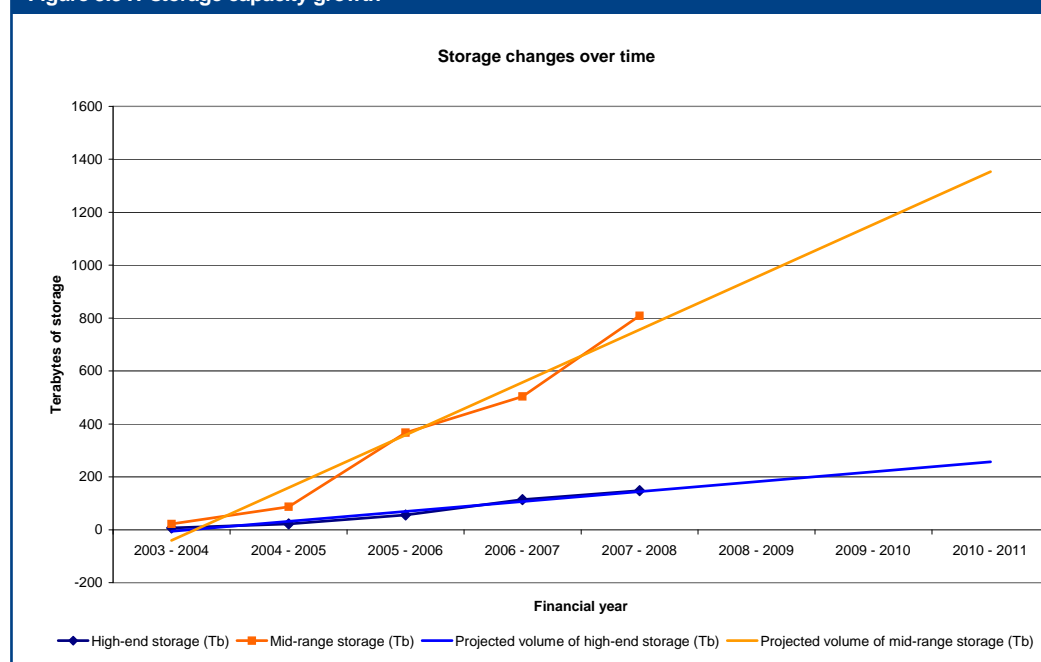
### Summary

We have outlined above why we believe that ORR’s proposed reductions in our IT expenditure will prevent us from delivering a sustainable and long-term IT policy that will deliver future efficiencies within Network Rail and increased value across the wider rail industry. ORR has not provided any evidence to support its proposed reductions. This lack of objective evidence means that the reductions are effectively an additional set of efficiencies on a plan which we had already significantly challenged and constrained in the SBP. We therefore believe that ORR should fund in full the expenditure included in our plan.

### Corporate offices

ORR has reduced expenditure on corporate offices from £92 million to £40 million (pre-efficiency). We understand that this is based on the long term historic cost of undertaking renewals to corporate accommodation and on the basis that other projects are at an early stage of development so there is considerable

Figure 3.3 IT storage capacity growth





uncertainty in their scope and cost.

The planned investment on corporate offices is required to deliver reductions in operating costs. If this investment expenditure is removed some operating cost reductions in the SBP would not be achievable.

The costs for providing the corporate office accommodation comprise managing the 'steady state' activity, and introducing a 'step change' to reduce the overall accommodation cost to the business. For each of these elements there are associated operating and capital costs:

- the operational costs are mostly fixed and mainly comprise rent, rates, service charges, facilities management costs and utilities costs; and
- the capital costs comprise the standard activities required to keep buildings both compliant with legislation and in a condition that is appropriate to fulfil the company's obligations to the health and welfare of the work force.

Figure 3.4 shows the expenditure in each category of corporate offices capital expenditure.

The level of expenditure included in the draft determinations will not allow us to comply with the steady state requirements of legislation, lease obligations and good estate management required to achieve legal compliance. Neither would it enable more efficient use of space across the office portfolio through rationalisation and standardisation of accommodation, which contributes to the operational efficiencies in the SBP. There would also be no opportunity to deliver the change to a National Centre which both delivers savings in corporate office costs and enables wider operational efficiency savings to be achieved.

We recognise that the level of justification for some schemes that we provided in support of the SBP was insufficient and we have therefore set out below further information, clarifying the scope of activity and the benefits that will be generated.

In common with the proposed investment in IT, we welcome ORR's confirmation that these investments could be funded through the RAB in accordance with the investment framework. However, we consider that these are central to our plans for the business and they should therefore be funded directly as part of the review.

### *Investment in the steady state*

This type of work falls in to two categories, compliance and estate management.

Steady state compliance works represent the minimum required to achieve statutory and lease obligations. This cost is unavoidable, and in many cases if works are not undertaken they will be undertaken by the landlord and the costs recovered from Network Rail. Failure to carry out these works could also result in prosecution. The required work has been identified on a bottom-up basis and the scope is based upon asset condition and statutory and lease obligation. The cost of these compliance works is £34 million and includes:

- the replacement of "R22" refrigerant being used in air-conditioning systems which must be completed over the next two years (£1.5 million);
- building fabric and plant, such as lifts, air conditioning, heating systems, water systems and lighting systems must be compliant with current standards and regulations (£17.9 million);
- increased building occupancy resulting in a need to upgrade facilities to current minimum requirements at a number of locations including the Mailbox in Birmingham and Buchanan House in Glasgow (£6 million);
- compliance with waste recycling requirements (£2.9 million); and
- compliance with Health and Safety Executive (HSE) obligations in respect of chairs and furniture (£5.7 million).

Steady state estate management is required to deliver rationalisation and standardisation of accommodation and will contribute to the operational efficiencies. The cost of this is £25 million and includes changes to deliver consolidation of space in existing buildings to facilitate additional occupation, consolidation of buildings to reduce operational costs, and the delivery of an acceptable and consist level of facilities.

Consolidation of buildings will result in the occupancy of fewer and larger buildings. This would result in capital costs at Reading (£2.2 million), Swindon (£0.9 million) and Bristol (£1.3m) where we currently occupy several buildings in each location. This will enable us to achieve operating cost savings in facilities management (e.g. only one reception, mail room, cleaning service in each location rather than one per building), and other efficiencies including improved desk space utilisation. Consolidation will also improve interaction between our teams

helping to engender better and more efficient working practices.

We are committed to the delivery of an appropriate working environment and consistent facilities in all buildings. For example, we plan to refurbish our offices at the Mailbox in Birmingham (£3.5 million) and East Anglia House in London (£3.5 million). These works will bring the existing accommodation up to the standard of our other route HQ buildings. Also, during CP4 a number of buildings will become dilapidated and will require refurbishment. This also has the benefit of ensuring that future dilapidations payments to landlords are minimised.

All steady state investment assumes that the move to the National Centre will take place, therefore compliance work only will be undertaken in the buildings we plan to be vacate.

#### **Investment in a National Centre**

The corporate office strategy is to provide offices in strategic locations which will enable us to deliver ongoing operational savings. This strategy includes relocating to a new office complex outside London (the National Centre).

The SBP included investment of £33 million, which was based on the closure of four London buildings with current operating costs of £15.5 million annually. Work has continued since the SBP which has resulted in an increase in the size of the National Centre. The larger centre would require an investment of £58 million. This will now facilitate the closure of eleven offices and reduction of required space in a further three. The strategy is supported by a business case and is forecast to deliver annual savings of £8.5 million upon the ending of all leases. These savings will not begin to be fully realised until the final year of CP4 when the final buildings will be surrendered, and therefore the full benefit is not realised until CP5.

If we are unable to implement the National Centre strategy, additional capital expenditure would be required during CP4 to refurbish and replace offices which would otherwise have been vacated. This is estimated to be around £7 million for compliance with health and safety

legislation of those offices we would continue to occupy, and around £25 million to fit out and relocate to new buildings to replace those for which the leases had expired. In addition, we would not achieve the operating cost savings described above.

We currently assume that the National Centre building would be leased but we will assess alternative options during CP4 to ensure best value for money.

Our office accommodation strategy delivers direct savings in the operating costs for office accommodation, but is also a key enabler for efficiency savings in other areas of the business through provision of consolidated accommodation, which enables efficient deployment of resources, more efficient working practices, and improved engagement and productivity. Without the corporate office strategy we will not be able to achieve many of the wider efficiency savings. We therefore believe that it is appropriate for the capital expenditure required to deliver the strategy to be included as part of ORR's determinations.

#### **Summary**

Our planned investment in corporate offices delivers savings in our office costs in CP4 and beyond, and also enables wider benefits as we move to fewer buildings. At the expenditure levels proposed by ORR, we will not be able to deliver the steady state or the National Centre step change. We would not be able to deliver the operational savings set out in the SBP and would be at risk of legal action for either non-compliance with legislation or lease obligations. It is therefore fundamental that we are given the flexibility within the final determinations to enable us deliver the full corporate offices strategy.

Furthermore, failure to comply with current standards in lifts, heating, water and cooling systems will result in poor mechanical performance and will require higher fuel consumption and maintenance costs to operate or result in complete failure. This would also be likely to impact adversely on the operational savings we will be able to achieve in CP4.

**Figure 3.4 Corporate offices renewals (pre-efficiency)**

£ million (2006/07 prices)	SBP update	ORR	Difference	Latest view
Compliance works	34	Note: there was no split made between categories	n/a	34
Steady state estate management	25		n/a	25
Investment in a National Centre	33		n/a	58
<b>Total</b>	<b>92</b>	<b>40</b>	<b>52</b>	<b>117</b>

## Track

ORR has reduced our planned track renewals activity by around five per cent, listing a number of reasons for believing that our forecast renewal volumes are “slightly high”, partly because they believe that some planned work is over-scoped.

We believe that the suggestion of over-scoping reflects a draft report on site inspections, which, having been extended to cover more sites, has not found any further evidence to support this view. In addition, there are some misinterpretations of data and asset policies affecting ORR’s assessment. These are summarised below.

A key element informing ORR’s view is the programme of independent inspections of planned renewal sites carried out by Richard Spoors, the first phase of which suggested that some work was being over-specified or scheduled too soon. Since the draft determinations was published this study has been extended to review another 20 renewal sites. These further inspections have not found any further evidence of work being over-scoped; in fact they found the opposite, identifying some sites where additional formation works were considered appropriate. We believe that the consolidated site inspection report does not provide a justification for suggesting that aggregate volumes are overstated, and that ORR should amend its conclusions as a result.

Two of the sites inspected were planned switches and crossing (S&C) renewals that were considered to be suitable for partial renewal. We agree, and partial renewal solutions are being planned for the sites in question. However, this does not mean that our SBP activity forecasts should be revised. As we have progressively developed our plan since June 2006, we have amended our asset policy on S&C renewals with the result that there is a major increase in the planned volume of partial renewals in CP4, accounting for one third of the total S&C activity. We have been working through future renewal proposals to identify those which are suitable for partial solutions and have amended the scope of many plans as a result.

ORR asserts that our track asset policy “precludes partial renewal of S&C on primary routes”. This is not correct. Our SBP forecasts show that one third of the S&C renewals on primary routes will be partial treatments.

ORR also suggests that our categorisation of primary track covering 40 per cent of the network

is too broad and results in activity being over-specified on routes where usage and linespeed are relatively low. We have provided ORR with a detailed summary of the drivers of our track maintenance and renewal activity volume forecasts, which demonstrates that it is virtually all determined by linespeed and tonnage factors, and that route classification alone does not have a direct impact. We do not believe that ORR has taken this analysis into account.

It is true that improvements in drainage and in the quality of both installation and maintenance activity will facilitate longer asset lives, but these factors will not significantly affect renewal volumes in CP4 where the damage has already been done and the assets being renewed have already reached the end of their effective service lives. The benefits will be felt in CP5 and beyond. Our asset service life assumptions already reflect the assumption that installation and maintenance are carried out at the right time and to the specified quality.

ORR suggests that we could reduce the volume of renewal of pre-1975 rail on primary routes by applying more risk-based criteria. This view is based on some incorrect data that we provided, and a misunderstanding about the basis of our forecasts. The data we supplied suggested that only 168 km of pre-1975 rail would be left on primary routes at the end of CP4. In fact the actual figure derived from the ICM forecasts is 1265 km. We can provide a note explaining this discrepancy. Our forecast volumes in the plan are driven solely by the service life assumptions, which have been independently endorsed. It is not the case that we are forecasting that any rail is renewed purely because it was installed earlier than 1975.

The expected impact of improvements in grinding and other maintenance activity to manage the wheel-rail interface is already taken into account in our SBP forecasts. Further savings may be generated beyond CP4.

We therefore believe that none of the factors cited by ORR to justify the five per cent reduction in volumes are valid and we do not accept the proposed adjustments. It remains our view that the forecast volumes in the SBP are appropriate.

In any case, these adjustments amount to a statement that there is an opportunity to achieve scope efficiency savings, for example by renewing less rail or doing more partial S&C renewals. However, ORR’s headline efficiency assumptions are based largely on top down

comparisons with the overall efficiency improvements or expenditure levels achieved by other businesses. These comparators will therefore include scope efficiencies as well as unit cost efficiencies. By making scope reductions and applying top-down efficiency assumptions, ORR has effectively double counted some of the potential efficiency savings.

This point is further reinforced by the inconsistent approaches adopted for maintenance and renewals. ORR has used a single efficiency assumption for maintenance and renewals, but has applied scope reductions to renewals while (correctly) making no (additional) scope adjustments to maintenance.

### Civils

ORR has reduced our planned activity by around 14 per cent, rejecting those elements of our plan derived from CECASE modelling. We accept that ORR has made a policy choice to reduce the overall level of activity in CP4. As a result of its determination, the volume of activity will reduce by six per cent from the level reached during 2008/09.

While the risk of an adverse impact on the number of temporary speed restrictions and on train performance will clearly increase, we believe that careful prioritisation of activity will mean that the impact will not be substantial during CP4. The main impact of the reduced activity will be to increase the overall whole life cost of the asset portfolio as more "patch and mend" solutions will be adopted.

We are disappointed that ORR does not feel able to endorse our CECASE forecasts, despite the effort we have put into explaining the modelling process and justifying the critical inputs. We understand the concern over the validation of the forecast volumes. This is problematic, given the very long asset lives and the environment in which it was agreed that activity volumes needed to be increased during CP3. We will seek to work with ORR well before the next periodic review so that we can reach consensus on the best approach.

### Signalling

ORR has applied a five per cent reduction to our planned total activity (excluding new activity such as ERTMS) because of concern about deliverability. This appears to be based upon on the observed deferral of expenditure in CP3, rather than a challenge to our capability to physically deliver the overall volume of work.

It remains our view that the activity volumes in the SBP are deliverable. We recognise that achieving the total volume will require a degree of overplanning as there will always be a risk of some projects needing to be rescheduled. However, we will overplan against the total SBP volumes, as these reflect the work that we consider to be necessary.

At the industry seminar in June, ORR stated that if we were able to deliver the total volume then we should do so. We welcome confirmation of this view and note that if ORR does not increase allowed expenditure in the final determinations then it needs to allow for the financing costs in the RAB.

The reduction assumed by ORR has been applied across all conventional resignalling activity, including minor works. If the volume of full resignalling is reduced then the volume of minor works will need to increase to extend the life of the assets until renewal is undertaken. ORR's reduction therefore implies either a reduction in resignalling activity larger than five per cent, or the inclusion of additional scope efficiency, effectively assuming that the same outputs can be delivered with less activity. ORR does not appear to have taken this into account in development of its efficiency assumptions.

### Telecoms

ORR has adjusted our planned expenditure on telecoms by £18 million in CP4. ORR has indicated that they reduced concentrator volumes by 15 per cent in 2012/13 and 30 per cent in 2013/14. This accounts for about £8 million in CP4, less than half the overall variance, and does not explain why ORR's figures are lower in the early years.

The adjustment to concentrators has been made on the grounds that some equipment will be made redundant as the GSM-R network is established and that fewer assets will therefore need to be renewed in CP4. We agree that there will be volume reductions, but note that in some instances cross-industry agreement will be needed before the assets can be withdrawn, and that there are significant costs associated with decommissioning the redundant assets. The net cost saving compared to the SBP is likely to be around £5 million.

We therefore believe that ORR has only justified a reduction of £5 million from the SBP update figures.

We also believe that these savings are another example of scope efficiency that is included in the plan, as they have been made possible by the investment in GSM-R during the early part of CP4. It is not appropriate to apply the top-down efficiency target over and above these scope savings.

ORR has also excluded £102 million of expenditure on station information and surveillance system (SISS) assets that was presented in the SBP update as a policy option. ORR has not provided any rationale for this exclusion, which was not mentioned in the text of the draft determinations.

As ORR is aware, our liabilities for SISS assets have been the subject of a number of commercial disputes since privatisation as the contracts are open to interpretation on the distinction between maintenance (TOC responsibility) and repair (our responsibility). The industry is keen to avoid this ambiguity in future. It had been anticipated that this would be addressed through the Stations Code but this has now been deferred. We accept that TOCs have been picking up elements of repair costs and expect our level of expenditure in CP4 to increase.

In the SBP update we included £63 million in our core renewal forecast, based on recent actual expenditure and an additional £102 million as a policy option, being the forecast incremental cost based on a detailed assessment of asset volumes and expected asset lives. The total forecast spend was therefore £165 million.

We have reviewed this total expenditure forecast for CP4 and reduced it to reflect appropriate packaging of activity at stations and the deliverability of activity. Our current view is that the overall renewal spend on SISS assets in CP4 will be £107 million, an increase of £42 million on the core renewal forecast in the SBP but £58 million lower than the total including the policy option. The actual level of expenditure will be influenced by the agreements reached with TOCs about the share of responsibilities.

In view of the continuing uncertainty over future liabilities, we suggest that any differences between allowed and actual volumes are logged up to the RAB under the proposed investment framework. The criteria will need to be carefully defined as the core £63 million was not supported by volume data, and there should be a strong presumption that an adjustment for SISS assets will be required. The alternative would be

to allow for the latest forecast level of expenditure within the final determinations, implying an increase of about £42 million over CP4.

## Electrification

ORR has proposed a large reduction in the volume of painting of overhead line structures. It claims that we are building up a programme from “nothing at the start of CP4 to almost 5,000 by the end of CP4”. This is misleading. It is true that the volume of activity will ramp up significantly over CP4 but in recent years the actual volume of structure painting has averaged 500 per year. A significant proportion of this activity has been on the WCML, where ORR has expressed concern about the deliverability of this work.

Our asset policy is to paint these structures after 40 years in order to extend asset life and optimise whole life costs. Painting at this time extends the total expected asset life from around 60 years to 80 years. We have provided ORR with a financial justification for this policy which does not appear to have been challenged. We understand that our approach is consistent with that applied by the National Grid to pylons and other structures.

The volume of activity will need to ramp up substantially over the next two control periods because many structures will become due for their first painting, 40 years after they were installed when routes were electrified for the first time. Our CP4 forecasts show an average of around 3,000 structures per year, rising to 5,000 in CP5. The volume profile shown in the ICM is “lumpy” because a 40-year life is applied to a large volume of assets that were installed in the same year. The actual programming of work would smooth the level of activity over CP4. A reduction in the actual level of activity in CP4 would simply build up a backlog of work in CP5, when the volume will need to be higher anyway. We therefore believe that ORR’s proposed reduction of around £10 million is not appropriate.

We accept the exclusion of the renewal of the grid supply point at Elvanfoot on the grounds that it is included within the enhancement provisions for the WCRM project.

## Plant and machinery

ORR has excluded £8 million of expenditure in 2013/14, on the grounds that the SBP forecast showed a significant increase over the previous year and that “when challenged Network Rail was unable to explain why the increase was necessary”. This statement is surprising as we



have no record of the question having been asked and the answer could have been provided easily.

Our renewal forecasts for these assets are based on expected asset lives and the profile of activity therefore reflects the age of the existing stock. The particular asset types showing higher spend in 2013/14 are:

- signalling power supplies, with the renewal or refurbishment of uninterruptible power supplies, generators and signalling power cables - key sites in the plan for 2013/14 include Ashurst, Hever and Crowborough; and
- high voltage distribution equipment used for non-traction purposes, including the replacement of oil-filled switchgear in line with our asset policy - key sites include Basingstoke and Eastleigh.

In practice the delivery of activity over CP4 may follow a smoother annual profile than that shown in the SBP, which drops in the middle of the period and increases at the end. We note that the average expenditure over CP4 is very similar to our projections for CP5 and beyond and therefore consider the adjustment made by ORR to be inappropriate.

### Other renewal costs

Since completing the SBP update we have established that our forecasts erroneously omitted the capitalised pension costs of our renewals delivery organisation. This means that total renewals costs are understated by around £125 million over CP4. We believe that these costs should be reflected in the final determination, either by allowing the additional spend or taking them into account in the determination of efficiency. We will be adjusting our CP4 delivery plan to capture these costs correctly.

### Long-run renewals assessment

We note that the amortisation figure for Scotland in the draft determinations is £15 million lower than the figure in the supporting spreadsheet provided by ORR. We have not yet received a full explanation of this variance.

We have also sought clarification from ORR on their long-term view of electrification expenditure, which is substantially lower than our forecasts. We have not yet received a full reconciliation of these figures.

Further work on the assessment of long-run renewal requirements will be required for the next

review. This will need to include consideration of the appropriate profile for Civils given ORR's policy decision to reduce activity during CP4. Further consideration of the scope for efficiency improvement will also be essential.

### Operating strategy

We are reviewing our operating strategy in order to deliver a more effective and efficient rail network by assessing the strategic options for signalling control and traffic management. The strategic choices in this area have the potential to influence future operating, maintenance and renewals activities and their associated costs.

We are considering a range of options including:

- the "span of control" for signalling assets, including the extent of network coverage for signalling control centres, utilisation of signalling staff and options for signalling;
- the technologies to be used in signalling, including the propagation of established conventional technologies, the development of modular technologies, and progress towards implementation of the European Train Control System (ETCS) which replaces lineside signals with train-based technology (these will also become industry issues); and
- the processes and technologies to be used for traffic management, including variants on the existing automatic route setting (ARS) system and options for integration of traffic management with signalling systems.

Overall, simpler traffic management options may be more appropriate to rural signalling locations while more complex variants would deliver additional advantages in combined rural and mainline signalling areas. At the same time, any change to operating strategy will import business risks which will need to be assessed and managed.

There will be a wide range of options that may be considered and it is possible that additional capital expenditure funding will be required. However, it is highly unlikely that payback for any expenditure made in CP4 would be received within that control period. It is therefore expected that additional or reprioritised expenditure may be required compared to the SBP in order to secure longer term financial benefits.

## 4 Enhancements

### ORR's draft determinations

ORR has made a number of adjustments to the enhancements included in our plan. These include proposed reductions in cost and scope as well as the exclusion of funding for a number of schemes based on:

- an assessment of the cost and scope of individual projects by Arup;
- an assessment of potential further efficiency that could be achieved;
- an assessment of whether schemes are required for the HLOS capacity metrics; and
- a review of other enhancements, including those necessary to deliver the required performance improvements and the move towards the seven day railway.

The overall impact of these adjustments is to reduce enhancement expenditure by £1,522 million. The changes are summarised in Figure 4.1.

We welcome ORR's statement that we have the flexibility to decide which schemes will be implemented to deliver the capacity improvements necessary to meet the HLOS capacity specifications for London and other specified urban areas. We would welcome the same flexibility for the schemes necessary to

deliver the schemes classified as 'both the route kilometre metric and the HLOS London capacity metric'. The specific plans will continue to be developed as we prepare our CP4 delivery plan and as CP4 progresses.

The DfT's rolling stock proposals announced in January will need to be integrated within the industry plan to deliver the HLOS capacity metrics. Within the April SBP update it was only possible to integrate the rolling stock proposals for Northern Rail, and the issues involved in this are discussed below. Subsequently we have worked with National Express East Anglia to identify the infrastructure enhancements required to support its modified operational plan (to deploy the rolling stock proposed). The required alterations to our plans have been largely incorporated in the draft determinations.

The DfT's plans are now progressing with other train operating companies. It is very evident that further iteration of our infrastructure proposals will be required and the line between "delivering the HLOS" and maximising the value of the rolling stock plan will become further blurred. ORR will need to consider how the situation should best be addressed in its final determinations.

We are also working closely with Transport Scotland and will continue to discuss with them and ORR as we refine our plans.

**Figure 4.1 Impact of ORR draft determinations**

£ million (2006/07 prices)	SBP update	ORR adjustment	ORR draft determinations
<b>England &amp; Wales</b>			
Accepted amendments or policy choices			
Projects entirely removed	320	(320)	-
West Coast Main Line (Stafford-Colwich)	483	(111)	372
Gatwick	30	(20)	10
Network Rail proposed reductions	107	(49)	58
Cost and scope reductions			
Platform lengthening*	330	(46)	284
Power supply upgrades	97	(15)	82
Other West Coast Main Line	386	(39)	347
Other specific projects	5,543	(110)	5,433
Additional efficiency savings	-	(108)	(108)
Risk	306	(88)	218
Performance	250	(90)	160
CP5 development	240	(190)	50
Seven day railway	320	(160)	160
Policy choices	167	(104)	63
<b>Scotland</b>			
Scotland schemes	406	(34)	372
Seven day railway	30	(30)	-
Policy choices	12	(9)	3
	<b>9,027</b>	<b>(1,522)</b>	<b>7,505</b>

\*Platform lengthening schemes also form parts of the Leeds and Manchester capacity improvement packages – these costs are included in the 'other specific projects' line

## Our response

In its draft determinations, ORR recognises that we have made considerable progress in the development of our enhancement plan that was included in the SBP update published in April 2008. We have continued to make progress with our plans and this is illustrated in Figure 4.2. This shows the further progress since April as enhancements develop through our GRIP process.

In the following sections, we set out our response to ORR's draft determinations. We consider that some of the proposed adjustments to enhancement costs are inconsistent with the required outputs. However, in other areas we propose to work with our industry partners to seek alternative sources of funding. We will continue working with operators and other stakeholders as we develop our CP4 delivery plan. In particular, we have written to passenger and freight operators explaining how we propose to consult them on our plans following publication of the final determinations.

We welcome ORR's acceptance of our methodology for including risk in our plan, including the adoption of an asymmetrical distribution to the range of uncertainties. There are clearly significant uncertainties in the cost and scope of the required projects. It is important that this is recognised in assessing the required level of expenditure.

This response does not represent an update of our enhancement plans, but work is ongoing and we will continue to work with our customers, funders and ORR as we develop our delivery plan for CP4.

## Accepted adjustments or policy choices

There are some elements of the draft determinations which we accept or where we recognise that there is a policy choice to be made. In some cases we believe there is a very strong case for the proposed investment and that this should ideally be provided through the review. If necessary, however, we may wish to work with others to seek alternative sources of funding.

## Unfunded schemes

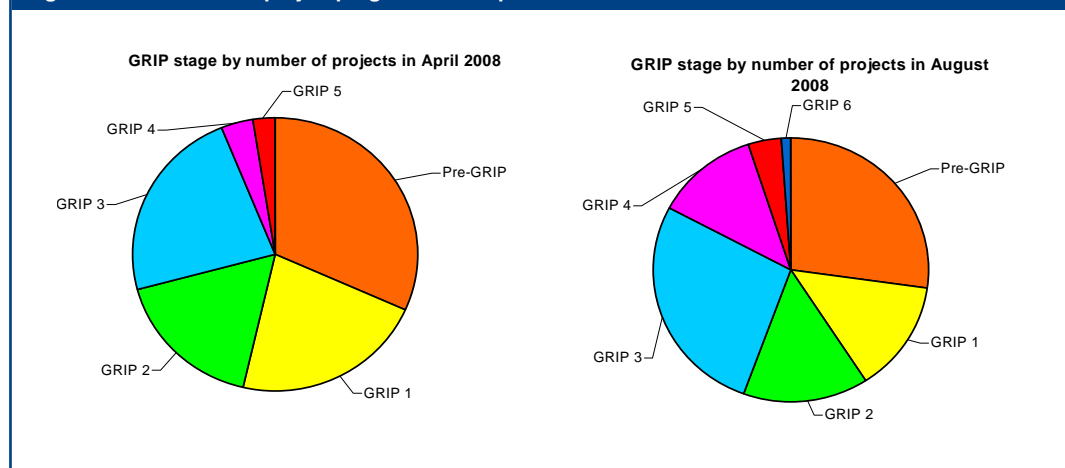
Twenty schemes, to a value of £320 million, proposed in the SBP update are not funded in the draft determinations.

## Enhancements to CP4 renewals

Of these 20 schemes, five are enhancement schemes associated with renewals planned to be undertaken in CP4. The enhancement schemes are not required to meet the CP4 HLOS outputs but they are supported by the industry and external stakeholders with appropriate business cases and appraisals. To be delivered most efficiently they need to be integrated within the one-off opportunity presented by the renewal with which they are associated.

For example, our analysis of the Nottingham Station Area enhancement indicates that, to commission the enhancement following implementation of the East Midlands resignalling scheme, will cost around four times as much as delivering it within the scheme. This is largely driven by the need to remove £60 million of what would be nearly new track and signalling. Delivered with the renewal scheme we included £19 million of spend in the SBP update. This has a benefit cost ratio in excess of 3:1, representing

Figure 4.2 Enhancement project progress since April 2008



good value for money.

Together the five enhancements in this category have a funding requirement of £159 million (including £21 million risk). These schemes are:

- East Midlands resignalling – Nottingham station area;
- Redhill remodelling;
- Crewe remodelling;
- Reading station area – platform 1-8 renewals; and
- Round-Oak to Walsall reopening.

We believe that it is in the interest of the long term stewardship of the network that an appropriate funding mechanism is identified to facilitate their delivery in combination with the associated renewal in CP4. The proposed investment framework is helpful in this respect. However, there would need to be sufficient clarity about how this would be applied. There would also need to be sufficient financial headroom to be able to finance the relevant investment. In this context we are surprised that ORR's financial modelling assumes that our surplus would be used to reduce debt.

### **Capacity and performance schemes**

The following seven enhancement schemes included in the SBP update as schemes contributing to capacity and performance are not funded by the draft determinations:

- West Croydon track capacity;
- Didcot – Oxford area capacity upgrade;
- Bolton corridor package;
- Buxton line capacity and line speed improvements;
- Doncaster Loversall Carr junction revised operational layout;
- Hertford loop (including Gordon Hill loops); and
- Swindon to Kemble redoubling.

ORR judged that these schemes failed to demonstrate that they are "justified and necessary in CP4 to give full effect to the HLOS in its statutory and regulatory context, and in particular Network Rail's obligations under condition 7 of its network licence" following testing against the criteria set out in the draft determinations.

To the extent that these schemes are not included in the final determinations, we will work with others to identify alternative sources of funding for these interventions.

### **Other schemes**

We have accepted that certain schemes are no longer required or have been subsumed within other schemes. These total £72 million in the SBP update. The eight schemes are:

- Liverpool Central passenger capacity;
- Liverpool James Street;
- West Croydon station development;
- West Anglia inner nine car trains;
- Cogan junction upgrade;
- Ninian Park to Radyr linespeed improvements;
- Birmingham New Street bay platform; and
- Fenchurch Street and Chafford Hundred Passenger Circulation.

### **West Coast Main Line (Stafford/Colwich)**

ORR has concluded that some of the work for the Stafford/Colwich remodelling scheme is likely to be deferred to CP5. We agree with this conclusion, which is closely aligned to the emerging schedule of works and timescales for delivering this project.

### **Gatwick airport remodelling and passenger capacity scheme**

The project at Gatwick comprises several components including:

- relief of passenger congestion at platform level;
- trackside enhancement works; and
- station concourse enhancement.

ORR proposes only to include the work to relieve platform congestion. We recognise that the other parts of Gatwick project are not required to deliver the capacity improvements into London terminals required by the HLOS. However, we consider that there are significant other benefits associated with undertaking this work and we included an allowance for the performance benefits in our CP4 performance plan. The Gatwick project delivers additional capacity on the Brighton Main Line which would not be realised until CP5. The cost of undertaking the work in CP5 would be considerably higher as the synergy with the renewals being delivered in CP4 would be lost.

We therefore believe that this project should be funded as it contributes to the longer term needs of the railway and represents good value for money. If not, however, we would obviously wish to work with our stakeholders to seek alternative sources of funding. We recognise that there is a choice to be made by ORR in respect of the Gatwick scheme and we anticipate further

**Figure 4.3 Platform lengthening – ORR adjustments by route**

£ million (2006/07)	SBP	ORR draft determinations*	Adjustment
Route 1 (Kent)	37	32	(5)
Route 2 (Brighton Main Line and Sussex)	76	75	(1)
Route 3 (South West Main Line)	131	108	(23)
Route 5 (West Anglia)	27	24	(3)
Route 6 (North London Line and Thameside)	20	19	(1)
Route 8 (East Coast Main Line)	12	11	(1)
Route 11 (South Trans-Pennine, South Yorkshire and Lincolnshire)	11	1	(10)
Route 16 (Chilterns)	9	7	(2)
Route 19 (Midland Main Line and East Midlands)	5	5	-
<b>Total</b>	<b>330</b>	<b>284</b>	<b>(46)</b>

\*Note: these numbers are pre-efficient

discussion between ORR and ourselves will be required.

### **Network Rail proposed adjustments**

We advised ORR of reduced costs for the North London Line capacity enhancement and the Westerleigh to Barnet Green linespeed upgrade projects. ORR's draft determinations are consistent with this.

We also advised ORR of reduced costs for the Strategic Route 17 (West Midlands) and 18 (West Coast Main Line) platform lengthening scheme. However, as stated below in the platform lengthening section, we believe that Arup omitted the stations in Strategic Route 18 from their review of costs and as such ORR should include funding for the works at these stations in the final determinations.

### **Scope and cost reductions**

ORR has reduced the scope and cost of a number of projects in our plan. These adjustments have been based on assessment by Arup of our project costs and scope, a review by Halcrow of the projects on the West Coast Main Line and ORR's own analysis. The principal adjustments have been applied to the following:

- platform lengthening projects;
- power supply upgrades;
- West Coast Main Line projects; and
- a number of individual projects.

### **Platform lengthening**

ORR considers that we can reduce the costs and scope of platform lengthening expenditure by £46 million. The reductions for each route are summarised in Figure 4.3. The proposed adjustments are mainly due to reduced scope where ORR considers that we have over-estimated the amount of work required to lengthen platforms.

The scope of platform lengthening projects generally comprises two elements:

- extension of the existing platform to the new length required; and
- associated work to other assets that will be necessary to effect the required platform lengthening such as moving signalling. It should be borne in mind that when moving signals it is often necessary to make adjustments to the permanent way, which can import significant costs to a platform extension project.

We believe that the approach adopted by Arup has resulted in a significant under-estimate of the scope of work required. Arup's approach included using its own estimate of rolling stock carriage lengths and the length of existing platforms based on information included in the sectional appendices.

Arup's assumptions are based on standard colloquial (i.e. imprecise) descriptions of carriage lengths. However, the actual carriage lengths are often slightly longer than this. For example, a class 450 carriage, with an actual length of 20.34m would usually be verbally described as a 20m vehicle. Further examples include:

- on West Anglia route, carriage lengths are 20.25 metres; and
- on Kent, Sussex & Wessex routes, carriage lengths are 20.40 metres.

As a result, using colloquial descriptions of carriage lengths is likely to under-estimate the total length of trains. This can add up to six metres to Arup's assumptions for the length of a 12 car train. We therefore consider that Arup's adjustments are not appropriate. We note that Arup has correctly added a further allowance of five metres to take account of variations in the precise stopping point.



Arup has made no allowance for locations where trains are to be split (requiring platforms to be extended by a further two metres) or joined (requiring platforms to be extended by a further six metres). Stations at which joining and splitting should be taken into account include Cheshunt, Dartford, West Croydon, Oxted, Ascot, Dorking, Guildford and Weybridge.

Arup's use of data included in sectional appendices is also inappropriate. This information simply includes the physical length of the platform. It takes no account of areas that are currently out of use for either operational or safety reasons. This includes, for example, issues associated with signal sighting or platform width. Where parts of platforms are not in operational use, we have assessed whether it is best to extend the platform or, alternatively, carry out work which would enable that part of an existing platform to become available for use. This has not been considered by Arup.

We also believe that Arup has incorrectly excluded platform extensions at four stations on Strategic Route 18 which has resulted in around £1.2 million being omitted from ORR's draft determinations.

As a result of the reduced carriage length assumptions, Arup has also assumed that there could be a significant reduction in associated work on other assets. It has used a combination of publicly available satellite imagery and more generic assumptions to assess the impact on other assets. Given that we consider that the platform length assumptions are incorrect, we also consider that the consequential reduction in associated works on other assets is inappropriate. In addition, we do not believe the methodology used by Arup to be fit for purpose.

As a result, we believe that ORR's adjustments to our platform lengthening costs are inappropriate as they under-estimate the actual scope of work that will be required. The £46 million reduction in ORR's draft determinations should therefore be reinstated.

We note that ORR has also adjusted our proposals for the Leeds and Manchester areas, which included platform lengthening projects. We discuss these later in this chapter.

### **Power supply upgrade projects**

Arup has acknowledged in its report that it could not find evidence that we had over-specified the scope of the power supply work required. However, it has raised concerns over the skewed

nature and range of uncertainties we have adopted in our risk modelling.

In terms of our approach to risk modelling, and therefore our use of an asymmetric distribution for risk, ORR has stated in the draft determinations that "we have accepted Network Rail's P80 methodology for these non-specified projects". Arup has made adjustments to cost estimates "for skewed risk distribution". This appears to us to be inconsistent with ORR's general acceptance of our approach to risk modelling.

Arup would appear also to be concerned by what they describe as the "higher end" of the range adopted in our modelling. We believe that the adoption of the range we used (between -18 per cent and +43 per cent) is valid and takes into account a number of significant uncertainties:

- the project is at an early stage of development (in GRIP stage 1);
- Arup acknowledges that the range of uncertainty adopted is consistent with the stage of development and, in particular, the need to conduct detailed power modelling in the next stage of development;
- Arup recognises the high levels of system reliability required to support the train service reliability targets;
- we have been conservative in our assumption with regard to scope that is included in the point estimate and more detailed work could identify additional scope such as new distribution network operator (DNO) supplies or substations that would add significant cost if they are required; and
- the assumed service plan and rolling stock assumptions are subject to significant further development with train operators and DfT.

ORR has also accepted in its draft determinations that it would accept that projects in early GRIP stages would have "somewhat higher" contingency allowances than those consistent with their investment framework, which allows up to 25 per cent for projects at GRIP stage five.

In order to adjust for the range of uncertainty adopted in our forecasting, Arup has adjusted the point estimate rather than the range of uncertainty. This is a crude approach and is not logical given Arup's statement that the scope appears to be reasonable and by implication the point estimate, given that they are not recommending any adjustments to the unit costs. Furthermore, this does not explicitly set out what

Arup believe is the appropriate range of uncertainty to be adopted.

Arup also claims that we have included optimism bias in our estimates. We have not made any such allowances over and above the provisions included from our risk modelling of the range of uncertainty around the point estimates. We believe therefore Arup has made an error in making this adjustment.

Arup has removed £1.2 million in the estimates for Strategic Route 5 (West Anglia) and £3 million in the estimates for Strategic Route 7 (Great Eastern). The justification being that, although it recognises the possible risk that this expenditure will be required, until it can be confirmed then it should be removed from the point estimate. This is contradictory to Arup's statement earlier in the draft determinations that there is no evidence that we have over-scoped the estimates. This is also inconsistent with its concern over the range of uncertainty we have adopted. For example, Arup acknowledges that the possible need for the scope associated with the £3 million cannot be established until detailed modelling is undertaken and therefore must represent a risk. The £3 million compares to a total Arup point estimate of £2 million and represents a 50 per cent increase in costs. Similarly, the Arup point estimate for Strategic Route 5 is £1.6 million. The £1.2 million represents a 75 per cent increase in costs over this point estimate.

In conclusion, the costs as set out in our SBP represent an appropriate level of funding to deliver these vital power supply upgrade projects and should be re-instated in the final determinations.

#### **Other West Coast Main Line projects**

ORR has reduced expenditure on the West Coast power supply upgrade by £32 million. As this work is required to support the delivery of the December 2008 timetable, ORR considers that the work has already been funded in CP3. This is not correct and given our discussions to date we are very surprised at this suggestion. We recognise that some power supply works that have been funded in CP3 will be delivered in the early months of CP4. However, this is additional activity to deliver further enhancements to the network. ORR should therefore include this expenditure in its final determinations. As we stated in Chapter 3, we accept that funding for the upgrade works at Elvanfoot is included within this project.

ORR has reduced expenditure for the Bletchley/Milton Keynes project by £6 million. It considers that we have over-estimated the cost of engineering access. We increased our cost estimates following the January 2008 possession overruns to reduce the risk of future overruns. We consider that this is appropriate.

#### **Other projects**

ORR has made specific adjustments to the forecast expenditure for a number of other projects.

#### **12 car operations: Sidcup and Bexleyheath routes**

We agree that that this scheme is included as a part of the Thameslink scope for CP4 and should not be listed as a separate scheme.

#### **Reading area redevelopment**

ORR has reduced expenditure for the Reading area redevelopment by £15 million to align costs with the amount allowed for in DfT's statement of funds available. With this level of funding, the intended scope within the plan for CP4 cannot be delivered and there is the potential risk that scope will have to be deferred to CP5.

#### **Clapham Junction station capacity**

ORR proposes a reduction of £36 million to remove all aspects of this project that do not relate to platform lengthening as it considers that they are not required to deliver the improvements in capacity required by the HLOS.

Clapham Junction is a critical station for the delivery of the HLOS capacity metric. It supports achievement of the HLOS metrics for three London terminals and is strongly linked to a number of other key schemes. The platform lengthening for both the Wessex and Sussex services rely on us being able to achieve the successful completion of works at Clapham Junction. The project would enable the station to handle the increased passenger numbers that would inevitably result from the platform lengthening at this already crowded station. Work would include two new station entrances.

Unless the increased crowding can be effectively managed, increased passenger numbers would lead to longer train dwell times at the station and make it more difficult to achieve the capacity metric at both London Waterloo and London Victoria. With the demand increases forecast for Clapham, the current station infrastructure will not be able to adequately provide access to and from the platforms. The proposed new station entrances will provide significant improvement by

relieving the high levels of passenger congestion experienced at the station, as well as making passive provision for future proposals.

We therefore believe that these parts of this scheme should be included in ORR's determinations.

### **Capacity improvements (Leeds and Manchester areas)**

The draft determinations indicates that those schemes within the SBP update designed to improve capacity into Manchester and Leeds are viewed as providing more incremental capacity than that required by the HLOS (and more than was to be delivered by the proposals within the SBP). Consequently schemes to the value of £94 million for Leeds and £99 million for Manchester have been reduced to £60 million in each case and it is left to Network Rail, within our delivery plan, to set out which schemes we intend to implement. We do not believe this is an acceptable outcome, nor is it a feasible way forward.

Providing an increased rail capability for two of the nation's principal cities requires more than a series of infrastructure schemes. The interventions proposed in the SBP update reflect the requirements of the operational plans devised by the TOCs with the support of Network Rail. These operational plans also reflect the discussions between TOCs and the DfT regarding the latter's rolling stock proposals, hence the movement between October last year and April this year.

Whilst we can understand the distinction ORR seeks to make between the HLOS metrics and the outputs to be delivered by the rolling stock proposals (and the funding for each), targeting Network Rail to deliver an objective at variance to that being pursued by Government and TOCs cannot be expected to deliver the efficient enhancement of network capability. We would urge that, through dialogue between all the parties involved, a more appropriate way forward is identified.

The Leeds schemes involved are:

- Leeds southern entrance;
- East Leeds Parkway;
- Leeds new bay platforms;
- Huddersfield platform 9;
- Horsforth turnback facility;
- Harrogate to Horsforth additional signal sections;
- Keighley turnback facility;

- Ilkley to Leeds platform lengthening;
- West Yorkshire platform lengthening (route 10); and
- Stabling for Northern (West Yorkshire).

The Manchester schemes involved are:

- Platform lengthening (Strategic Route 20 – North West Urban);
- Stabling for Northern (Strategic Route 20);
- Todmorden turnback facility;
- Salford Crescent new station;
- Salford Central new platforms; and
- Strategic Route 20 capacity enhancement package.

### **Bromsgrove electrification**

We are pleased to see this scheme included in the draft determinations. However, we would like to clarify that primarily this scheme proposes to electrify the main line between Barnt Green and Bromsgrove. The scheme proposal also included the additional requirement to electrify (infill) the fast line section between Kings Norton to Barnt Green. In addition, simplification of the track layout in the Longbridge to Barnt Green area is also included.

The relocation of Bromsgrove station is a separate third party enhancement project, and therefore is not included within our estimate.

### **Efficiency**

In its draft determinations, ORR has proposed applying efficiency assumptions to our enhancements forecasts.

We had not included any overall efficiency adjustments for enhancements in our plan. We have made it clear to ORR in our discussions that we believe it is inappropriate to make explicit efficiency adjustments to our estimates given the wide range of uncertainty around the cost estimates. Furthermore, scope and cost increases and opportunities for scope and cost efficiency are reflected in the range of uncertainties we have adopted in our risk modelling of projects in the early stages of development. Experience with the West Coast Route Modernisation project highlights the danger of assuming efficiencies can be delivered on the estimate of enhancement costs.

The efficiency adjustments were applied to activities that ORR considers are repeatable, similar to renewals. It has proposed the following efficiency assumptions:

- platform lengthening – 12.5 per cent;

- power supply – 7.5 per cent; and
- other schemes – 5.0 per cent.

These assumptions result in a reduction of £84 million in our plan.

In addition to these efficiency assumptions, ORR has assumed that we will be able to achieve further reductions on the same schemes of 0.7 per cent per annum as a result of frontier shift, which is intended to represent the continual improvement in efficiency (above that reflected in RPI) that would be expected from even the best (or better) performing companies. This results in a further reduction of £25 million.

ORR states that these assumptions were based on its assumptions for renewals. However, we have seen no specific analysis to support these assumptions.

While we recognise that a number of these activities are similar to renewals, many of the projects are at an early stage of development. There are, therefore, considerable uncertainties about the scope and cost of work, which must be reflected in the costing. We do not believe that ORR has adequately recognised these. Given the early stages of development, our experience is that the cost of many of these projects is more likely to increase and that it is therefore inappropriate to apply additional efficiency savings and to reduce expenditure for many of the individual projects.

We explained in Chapter 2 that we consider ORR's frontier shift assumption to be inappropriate because, for example, it is inconsistent with ORR's assumptions on the rate of return. We therefore also believe that the frontier shift assumption should not be applied to enhancements. We will continue to seek improvements in enhancement costs so that we are able to manage the cost of the overall programme on time and on budget.

In the efficiency chapter of this document, we set out our view that ORR's decision to uniformly apply efficiency across our renewals and enhancement programmes is not appropriate. The development of schemes such as GSM-R/FTN and Kings Cross station development (amongst others) is well advanced and as such our cost estimates for these schemes are already based on efficient prices. See the "Further evidence used by ORR" section of the efficiency chapter for further details.

## Performance

We welcome the acceptance that additional funding is required to deliver the HLOS performance targets and the flexibility that ORR have granted the industry in how that funding is spent. However, we are disappointed that ORR proposes to reduce our plan by £90 million. We believe that this reduction in funding risks undermining the industry's capability to deliver the required performance targets.

The proposed reduction in expenditure is mainly based on:

- a more optimistic view of the level of asset reliability delivered by our renewal and maintenance plans than we assumed in our performance plan;
- a more optimistic view on the level of certainty of the costs and benefits of the portfolio of improvement initiatives identified in our value for money modelling; and
- a view on possible efficiencies.

We have assumed that a reduction in asset failures may not lead to the same reduction in the number of delay minutes. This is because there are still likely to be severe failures as they are less predictable by nature and, therefore, less preventable through measures such as remote condition monitoring. ORR has not accepted this in its draft determinations, but has provided no evidence to support its assumption. Given that we are being challenged to improve performance to unprecedented levels, ORR's assumption appears optimistic.

ORR has recognised the importance of taking a "basket" approach to costing the required schemes to fill the remaining performance gap. This approach provides flexibility between schemes given the range of uncertainty due to the early stage of development of most of the schemes. Flexibility allows us to spread the risk of delivery across many schemes. We accept that there was a mix of projects that that would create a single basket of schemes that would cost around £200 million. However, this takes no account of the risk that these specific projects may not deliver the expected improvements, which would result in a shortfall in performance. We included expenditure of £250 million in the SBP update as this represented the lowest value at which the mix of potential baskets provided sufficient confidence that we could deliver the HLOS performance metrics.

The basket of projects identified by Winder Phillips in its report on performance includes fleet

improvement activity on Arriva Trains Wales, which was assumed to deliver significant PPM benefit per pound invested. However this would be achieved by improving performance in the sector that has the lowest shortfall in PPM. We therefore do not think that this delivers the appropriate PPM improvements at a disaggregated level. In addition, recent improvements in ATW performance now suggests investment in this scheme would have a much lower return than previously assumed.

ORR has made amendments to a number of enhancements schemes that we had assumed would deliver performance benefits. This includes, for example, reduced platform lengthening and changes to the projects at Gatwick Airport and Alexandra Palace. In its report Winder Phillips agreed that these projects would have a positive impact on performance. However, ORR appears to have not taken these changes into account when assessing the investment required to achieve the performance trajectory. The reduction in scope of these schemes removes up to 0.04 per cent improvement in PPM from our plan.

### Scottish projects

ORR has made adjustments to our expenditure forecast for the Glasgow Airport Rail Link and Airdrie – Bathgate projects. We also provide a brief update on the Glasgow – Kilmarnock project.

#### **Glasgow Airport Rail Link**

We understand that ORR has based its assessment of this scheme at least partly on estimates produced in August 2007. Since then the scope and structure of the project has developed much further. As a result we included a revised expenditure forecast in the SBP update and had extensive discussions with both Transport Scotland and ORR on the development of these cost estimates.

ORR has also identified a number of specific concerns with our forecasts. First, ORR considers that there is possible double counting in the signalling equivalent unit (SEU) rates. In applying SEU rates to this project, we have stripped out of the composite industry rate for SEUs all costs associated with preliminaries, designs and project management. We have then separately included a specific forecast for these additional costs in the overall project estimate. We have therefore not double counted costs in the SEU rates but included them only once.

ORR considers that the forecast for CP4 includes some sunk costs (i.e. costs incurred in CP3). We have clearly been working with the previous promoter and authorised undertaker for this scheme over the last four years, providing assistance and information during the Parliamentary Bill process. These costs have been incurred under an emerging cost arrangement and have already been invoiced and paid. They therefore should not impact on the estimates for future costs.

ORR is concerned that we have overestimated the project management costs based on a generic rate. Given the nature of this project and the complex interfaces, we have assessed these costs bottom up, based on the specific resources required. We believe this approach is more appropriate for this particular project and provides a more robust forecast.

We have developed the forecast costs for this project on the basis that there would be a fully emerging cost arrangement. A cost reimbursable approach has been discussed with Transport Scotland and ORR and would address specific concerns we have about the many interfaces on this project.

In discussion with ORR we have confirmed that there are only two projects within CP4 in Scotland that it proposes would be subject to the terms of clause 15.35 in the draft determinations which effectively amends the terms of any emerging cost arrangement. These two projects are the Glasgow Airport Rail Link project and the Glasgow Kilmarnock project. Given this very limited number of enhancement projects in Scotland we have proposed that the terms of clause 15.35 in the draft determinations should not apply to these projects. The use of a true emerging cost arrangement would also enable our acceptance of the proposed removal of contingency (in the form of optimism bias) from the project cost estimate. Optimism bias was specifically included to address the cost uncertainties on this type of project at the early stages of its development. Our plan includes a contingency of 19 per cent, which compares favourably with ORR's comments in the draft determinations that contingency amounts of 25 per cent are not unreasonable for projects at this stage of development.

#### **Airdrie – Bathgate**

ORR has proposed a reduction of £2 million for this project as a result of reduction in the assumed impact of real input price inflation. ORR considers that this is an increased cost that has



resulted from spend on this project being deferred from CP3 to CP4. We do not agree with this assessment.

In January 2008, ORR determined the fixed price for this project. This was after publication of the SBP but before publication of SBP update. ORR included an allowance of £22 million (seven per cent) which was added to the costs to reflect the premium due to Network Rail for fixing a price rather than an emerging cost. In the period before publication of the SBP update, the scope and programme for the project were developed significantly. As a result, we improved our understanding of the profile of costs for this project rather than any explicit deferral of expenditure. We therefore believe that it is inappropriate to reduce the amount of real input price inflation included in this project. Transport Scotland and ORR have confirmed that they would expect this project to be treated in a similar way to any other project (i.e. that funding of the scheme should include the impact of real input price inflation and RPI going forward). This therefore needs to be reflected in the allowed costs.

Recent discussions between Transport Scotland, Network Rail and ORR have confirmed that certain risks were excluded in determining the fixed price due to the difficulty in quantifying them. Discussions on how to manage these risks are ongoing with Transport Scotland and ORR.

### **Glasgow – Kilmarnock**

ORR has included £12 million in the draft determinations for this scheme, which is consistent with our SBP update. Since publication of the SBP update, we have tendered this project and the CP4 enhancement cost for this scheme has now increased to £13.8 million. As the project has been developed with Transport Scotland on the basis of an emerging price contract we believe the RAB allowance for this project should be adjusted to take account of this. This increase is due to a number of factors which have been discussed in detail with Transport Scotland. We have also proposed to Transport Scotland and ORR that this scheme should be considered as an emerging cost type contract and that the conditions set out in clause 15.35 of the draft determinations should not apply.

### **Seven day railway**

In the SBP we set out our plans to improve network availability on eight key routes where there was a business case to change the engineering possessions strategy. In the draft

determinations, ORR reduced the enabling funding designated for this programme by £130 million compared with the SBP.

ORR considers that the one-off investments have been over-specified and that some cost elements are effectively a double count of works included in the core plan. ORR also questions the level of benefits which are attributable to the full seven day railway implementation compared with the core plan.

We recognise that the implementation costs in our plan are not yet based on detailed forecasts for each route. Our indicative cost forecasts were based on scoping work which assessed the activities and associated costs required to implement seven day operation on the East Coast Main Line and Great Eastern Main Line, and also on the changes to the maintenance regime on the West Coast Main Line to deliver the December 2008 timetable change. This use of generic modelling to provide indicative costs is likely to overstate some costs and understate others. Detailed costs by route will be finalised as we develop implementation plans in conjunction with the industry.

Incremental costs for seven day operation are driven by:

- changes to engineering access arrangements, including changes to the timing, frequency and duration of engineering possessions;
- changes to processes, methodology and technology to allow outputs to be delivered under the new arrangements;
- investment in equipment and access points to enable the safe delivery of maintenance and renewals works during shorter possessions; and
- investment in additional crossovers and bi-directional signalling to enhance the opportunities to operate under single line working arrangements.

The scope of the infrastructure enhancements proposed on the East Coast and Great Eastern routes has been reviewed in detail and discussed with the relevant train operators, taking into account requirements such as possession site safety, train service planning and performance. Each potential intervention has been examined to assess its contribution to delivery of improved network availability and associated benefits, with some re-scoped or dropped as a result.

We have cross-checked the planned investments against schemes included elsewhere in the core

plan to prevent duplication. For example, full implementation of seven day railway requires the deployment of a more complex form of remote condition monitoring than the core plan, and the comparatively higher costs of this technology have been taken into account, rather than double counted.

We believe that the scope of the programme for these routes has been optimised to deliver the best possible business case. We therefore believe that ORR's reduction is not appropriate.

The passenger revenue benefits forecast in the business case appraisal work for this initiative are dependent on the release of suppressed demand on routes which routinely experience closure, diversion and bus substitution at weekends. This potential can only be fully realised by undertaking the infrastructure investments proposed, since the core plan would not, in itself, be sufficient to enable a significant reduction in extended weekend possessions.

We now plan to develop detailed implementation plans for individual routes, which will take place during the development of the CP4 delivery plan. This will enable us to assess implementation and operating costs more accurately and to determine the outputs that can be delivered within the funding proposed by ORR in its final determinations.

### Policy choices

ORR has excluded the £102 million provision for station information and surveillance systems (SISS). However, it does not appear to have given any reason for this. This is discussed in the telecoms section of Chapter 4.

ORR has accepted the extension of GSM-R coverage to freight-only lines but has reduced the forecast expenditure for potential savings of £7 million that have yet to be verified and has also claimed that costs could be reduced by a further £5 million. The potential savings involve reductions in scope on which we will need to consult with operators. ORR claims that further savings could be made because the length of freight-only lines involved is overstated and the mast spacing could be increased from around 5.3km to eight km. We are reviewing the precise extent of track but believe that ORR has exaggerated the possible savings. We do not accept that the mast spacing could be increased to eight km given the general reduction in mast height from 29 metres to 15 metres. We therefore believe that the cost

reductions proposed by ORR are inappropriate.

### CP5 development fund

The DfT included within its HLOS provisions funding of £180 million to be used in CP4 for the development of schemes to be delivered in CP5. The proposal demonstrated both recognition of the complexity and timescale of many major capacity schemes and a commitment to provide continuity across control periods. Additionally it was seen to support the request made by Government that we should undertake a feasibility study in CP4 for the West Anglia four-tracking scheme in CP5.

The SBP update also included a further £60 million to fund the feasibility study and development of the Manchester Hub scheme requested by Government subsequent to the publication of the HLOS. The total fund is expected to be split equally between the two major schemes and the development of the CP5 HLOS schemes.

In CP3 we have provided £52 million funding from our outperformance fund to develop many of the enhancement schemes required to deliver the CP4 HLOS. The continued development of these schemes (over 40 individual schemes at this stage) in the remainder of CP3 is critical to the delivery programme in CP4 and will significantly increase the funding already committed.

It cannot be assumed that an outperformance fund will be available to support such activity in CP4. Moreover, ORR assumes that our risk buffer will be used to reduce debt so even if we achieve our targets, this would not be available for investment. The £50 million provision in the draft determinations is therefore inadequate to support such a clearly critical contribution to the future of the rail network. As the White Paper concludes, "good rail planning is a continuous process for Government and industry, working in partnership to deliver a sustainable railway".

### Electrification

Our plans do not currently include significant allowance for further electrification of the network. However, we are doing extensive work on the business case and we expect to conclude the current phase of the work in spring 2009.

The business case is being developed in conjunction with the industry as part of the Network RUS. Early analysis suggests that there may be a positive case for further electrification of

parts of the network, reflecting anticipated reductions in the capital costs of electrification and on-going operational cost savings (including fuel costs and maintenance of vehicles).

to fulfil the criteria of the train lengthening and gauge funding allocations.

It is important that the supply chain should not be expected to ramp-up the amount of work in this area in an unrealistic timescale and if we are going to undertake significant electrification in CP5, this will need to begin in CP4. Over the long term and taking account of the overall industry benefits we would expect an on-going electrification programme to be self-funding and there would also be significant non-financial benefits. We would therefore propose to discuss with ORR and government how these costs can be funded through the RAB beyond the periodic review.

### Strategic Freight Network

ORR's draft determinations include £208 million in the last four years of CP4 for the development of the Strategic Freight Network. The fund will be available to deliver the schemes, funding provisions and studies outlined in our SBP update. ORR has not challenged our proposals.

We are now in the process of agreeing a governance procedure for the Strategic Freight Network with the industry and will be discussing it further with ORR.

While we identified a number of specific infrastructure schemes (e.g. Ipswich to Nuneaton capacity enhancement and a W10 diversionary route from Southampton via Andover) in the SBP update, there were also specific funding provisions for train lengthening schemes, infill gauge schemes and studies. The next step (which we have already started) is to confirm the allocation of funding provisions in conjunction with our stakeholders. We propose that the Strategic Freight Network programme for CP4 will be overseen by an industry steering group, which will have responsibility for endorsing decisions relating to Strategic Freight Network strategy.

Projects seeking funding must have clearly defined scope and outputs and be supported by an appraisal including an assessment against the Strategic Freight Network criteria outlined in the supporting document to the SBP.

In our CP4 delivery plan, we will detail the schemes and studies that will be carried out in CP4. Some of the studies will need to be carried out before start of CP4 so that the industry understands which schemes could be expected

## 5 Financial framework and revenue requirement

We welcome ORR's support for Network Rail raising unsupported corporate debt (i.e. without reliance on the government indemnity). We have continued to develop our plans in this area and we are discussing these with ORR as well as with the rating agencies.

The level of investment in railway infrastructure over the next five years will make Network Rail one of the biggest corporate borrowers in the UK. Given the current market conditions, we are discussing with ORR the advantages of adopting a gradual approach to corporate debt issuance. Under this approach we would still reach a position where all incremental debt is unsupported by the end of the control period. This would maintain the incentive benefits highlighted by ORR but would be less sensitive to current market conditions.

Since the publication of the draft determinations, we have had constructive discussions with ORR in relation to its financial assumptions. We are providing a separate submission to ORR which sets out our current view on these assumptions. Taken together with ORR's draft expenditure allowances (which we do not accept for the reasons explained elsewhere in this response) our financial assumptions would result in a slight reduction in our revenue requirements compared to ORR's draft determinations. We will continue to discuss these assumptions with ORR with the objective of reaching a conclusion, on issues such as the level of the FIM fee, which is both realistic and affordable.

Given current market conditions, we believe that ORR agrees that some of the assumptions underlying its draft determinations look optimistic at least in the short term. Unduly optimistic assumptions would either result in a settlement which is unfinanceable or which would be likely to require an early interim review unless market conditions improve considerably more rapidly than is currently expected. This would obviously not be in anyone's interests and ORR clearly recognises this.

ORR also emphasises that its periodic review determinations must be considered as a package. We agree. In this context it is also necessary to consider ORR's duty under section 4 of the Railways Act not to make it unduly difficult for Network Rail to finance its relevant activities. The significance of this duty is further reinforced by the proposal that Network Rail

should raise unsupported debt. It is therefore essential that the overall package proposed by ORR is financeable. As well as the financial assumptions this will clearly depend on the overall regulatory framework and the extent to which the business is perceived to be more or less risky than other regulated businesses. Most importantly it will also depend on whether the assumed improvements in efficiency and other outputs are regarded as realistic.

ORR has previously acknowledged the inter-relationship between the allowed rate of return and the assumed rate of efficiency improvement. We are therefore surprised that ORR appears to have combined extremely challenging efficiency improvements with a low rate of return and risk buffer. For example, ORR has proposed a risk buffer which is less than four per cent of Network Rail's annual expenditure. A one year delay in achieving ORR's efficiency targets for operation, maintenance and renewals would eliminate most of the annual risk buffer proposed by ORR, leaving little further allowance for risks associated with enhancements or financing costs. Moreover, unless this was caught up the following year, there would be no buffer to deal with further risks.

As noted above, we are providing a separate submission which sets out our emerging position on the key financial assumptions and we will continue to discuss this with ORR. The remainder of this section addresses the specific issues of principle raised in ORR's draft determinations. In particular we explain our position on the following issues:

- rate of return;
- FIM fee;
- risk buffer;
- ring-fenced fund (RFF);
- corporation tax;
- RAB roll forward in CP3;
- logging-up and logging-down RAB;
- triggering a re-opener;
- amortisation and reactive maintenance; and
- affordability.

### Rate of return

We continue to support ORR's approach to setting the weighted average cost of capital by reference to a "notional" Network Rail. The emphasis we both place on financeability does not, in our view, detract from the importance of either the economic analysis or comparison with other utilities in setting the correct rate of return. These provide both a benchmark against which to judge the financeability analysis and an important source of reassurance to investors.

In assessing financeability, Network Rail has a number of advantages as against a conventionally financed utility: it has no equity and its ability to raise capital is, as a result, not constrained by the need to pay a market-driven dividend; it has relatively conservative gearing as compared with some of the water and gas utilities; and it is likely to continue to be able to issue index-linked debt through the FIM backed programme.

The emphasis on financeability does not in any way imply that Network Rail requires a “financeability uplift” compared to a notional Network Rail. Indeed, if anything, the reverse is true. We believe the effect will be to allow Network Rail to finance itself through CP4 with a weighted average cost of capital (WACC) at a materially lower WACC than a conventionally financed company would require. This therefore offers taxpayers, farepayers and customers better value than they could otherwise achieve while still moving towards all incremental debt being raised on an unsupported basis.

### FIM fee

The separate analysis we have provided to ORR on our financial assumptions examines a range of assumptions for the FIM fee. However, we remain of the view that the assumptions underlying the SOFA are appropriate.

Regardless of what rate of FIM fee is payable, we consider that any increase in the total fee payable to government should be taken into account when assessing affordability (i.e. any increased fee should be netted off our revenue requirement when comparing this with the statement of funds available). This would include any increase arising from different FIM fee rates as well as from a more gradual approach to unsupported debt.

### Risk buffer

The risk buffer must clearly be consistent with the level of risk faced by the business. In this context, as noted above, it is particularly important that the buffer is consistent with the approach to efficiency and other improvement targets. We are not convinced that the monte carlo analysis we have seen is useful in informing this issue. However, it is clearly possible to construct scenarios in which the risk buffer would be fully utilised.

As a not for dividend business, all Network Rail's profits are potentially available for reinvestment in the railway to provide improved services for users. In this context, we believe it is

inappropriate for ORR to assume that the annual risk buffer is used to reduce our debt particularly since this assumes that the risks do not materialise. As noted below, this, combined with other assumptions, could undermine Network Rail's ability to invest in ways which improve the long term affordability of the railway for the benefit of users and funders.

### Ring-fenced fund (RFF)

If the ORR proposals for the ring-fenced fund (RFF) were implemented in their current form, investors are unlikely to give credit for RFF revenues in calculating our cash flow metrics. This would defeat the purpose of the fund and we believe that ORR now clearly understands this issue.

In order for the revenues currently allocated to the RFF to be treated as cash flow available for debt service, they will need clearly to be structured as profit which Network Rail reinvests in the railway through capital projects rather than as revenue allocated to the delivery of outputs. This was the original intention and we believe this can still be achieved relatively easily by introducing a lag between receipt of the revenues and capital expenditure (although we will need to test the structure further, including with our auditors).

The primary purpose of the revenues would be to provide a financing return for Network Rail which would reinvest those profits at its discretion on HLOS outputs. This would, in effect, mirror the railway dividend that has always been at the heart of the Network Rail model. If profits fell short, or subsequent events made it imprudent to reinvest, HLOS projects would be deferred and the outputs automatically adjusted. However, since ORR intends to set a risk buffer which is sufficient to protect the company against reasonable underperformance, government can still be confident that the HLOS will be delivered in full.

Clearly, Network Rail will only know whether it has made sufficient profits after the year end, so in practice the lag between revenue and spend would be two years. In order to redress the impact of the lag in the first two years of CP4, it may be possible for Network Rail to agree to reinvest profits from the last year, or possibly two, of CP3. The revised structure would have little or no adverse impact on our revenue requirements.

### Corporation tax

ORR argues that by changing the treatment of taxation the company will have been paid twice



for future tax liabilities and therefore proposes an adjustment of £1.3 billion based on its assessment of the allowance which was made for taxation in CP3 revenues. We believe this is flawed since we were never expecting to pay any tax in CP3 and this amounts to an arbitrary reduction in the RAB.

We commissioned Horton 4 Consulting to review this element of ORR's draft determinations. We are providing a copy of the report to ORR and the key conclusions are summarised below:

- ORR's proposed reduction of future specific tax allowances for "double counting" retrospectively reopens the CP3 price control. In similar circumstances in 2004 Ofgem did not make such an adjustment;
- there is no reference in the CP3 proposals to revenue in that period being used to offset tax costs in future periods. Rather, Network Rail's likely low tax bill was used as a justification for the pre-tax rate chosen;
- there was no assumption made in the CP3 proposals to the effect that a post-tax cost of capital differs from the pre-tax rate according to a CAPM WACC formula rather than by the amount of Network Rail's expected tax bill, which was negligible;
- the fact that depreciation for tax purposes is more rapid than regulatory depreciation means that, even calculated over a long period, the effective rate of return excluding tax (or vanilla return) is higher than that derivable from WACC calculations. This is widely understood and taken into account when companies assess price control proposal packages. Stylised calculations produce a much lower difference between pre-tax and vanilla rates; and
- even had there been an assumption that a difference could be calculated from a WACC formula, First Economics' range of values is too high, based on low gearing and high costs of equity – the latter disguised by its inversion of the formula to include the cost of debt rather than that of equity. An estimate based on ORR's view of the cost of equity would be significantly less.

We find it particularly surprising that ORR has proposed this adjustment given its emphasis on the importance of the overall package since we do not believe it can be decomposed in this way.

We are also not satisfied that ORR has addressed our previous comments on this matter. For example, we proposed that, partly for practical reasons, ORR should use the actual

level of debt rather than the notional level of debt based on performance in line with assumptions at the last review. This was in spite of the fact that this approach effectively means that our outperformance in CP3 is reflected in lower charges in CP4. We have pointed out that we would not have proposed this approach had we known that ORR envisaged such an ex post adjustment in relation to taxation and we are concerned that this could appear opportunistic.

### RAB roll forward in CP3

In Chapter 15 of its draft determinations ORR sets out its methodology and calculations for its proposed opening CP4 RAB of £32.1 billion. This includes a deduction of £750 million for lower than assumed (in ACR03) expenditure for some categories of renewal and enhancement. Whilst we accept that a deduction is appropriate, we consider the amount is overstated for two reasons.

Firstly, the ORR figure of £750 million includes about £250 million for safety and environment (S&E) schemes. We have not spent the full CP3 allowance and have had some useful discussions with ORR subsequent to its draft determinations about the rollover of the fund into CP4. We have agreed in principle that the S&E fund can carry over into CP4 and that the funding for this will be provided by making a lower deduction to the opening RAB for the CP3 underspend. This will allow us to continue to invest in S&E schemes that meet the relevant criteria and not cause a sudden stop at the end of CP3. We are currently considering potential schemes to carry over in order to assess an overall forecast for CP4. We aim to share our best estimate for CP4 spend with ORR before the end of September so that this can be taken into account in a revised figure for the opening RAB.

Secondly, the proposed £750 million RAB deduction also includes £135 million for lower than anticipated expenditure on train protection schemes such as the fitment of TPWS+ and the ERTMS trial on the Cambrian line. There was a fixed allowance for this work in ACR03, the same arrangement as for the WCRM programme, and we therefore believe that both programmes should be treated in the same way. However, ORR's draft determinations treat the two differently. For train protection spend is treated on an emerging cost basis and underspend compared to the allowance is shown as a RAB adjustment. For WCRM, it is treated as a fixed price where the overspend compared to the allowance does not result in a RAB adjustment.

We consider that this inconsistency should be corrected in the final determinations.

Related to this, ORR proposes to make an adjustment to the RAB for any variance between the actual level of expenditure in 2008/09 and that assumed in the final determinations. We consider that this sends a very perverse signal that we should spend regardless of efficiency and that there may be areas where an element of roll-over is appropriate. We will provide a further submission on this matter.

### Logging up/down

While we support the proposal that actual efficient capital expenditure should be added to the RAB we are concerned that the criteria are too restrictive. In particular we believe that changes are required in relation to the treatment of:

- enabling investment;
- enhancement cost risk;
- renewal input price risk; and
- additional operating and maintenance costs.

As well as the implications for the RAB, we also note the need for a consistent and appropriate approach to debt at future reviews. ORR has proposed that for the purpose of sizing the ring-fenced investment fund, calculating the interest cost assumption used in the calculation of the corporation tax allowance and considering financeability issues, it will roll forward the debt assumption used in CP4 for efficient movements in debt. We believe that the RAB should remain the fundamental building block for the calculation of our revenue requirements. However, the assessment of our financeability at future reviews must also be consistent with ORR's section 4 duties and the approach adopted by other regulators.

### Enabling investment

ORR has suggested that enabling investment to achieve efficiency or other improvements could be logged up to the RAB. It has confirmed in discussion that this would include investment to deliver the efficiencies and other improvements assumed in the periodic review (rather than just additional efficiencies or improvements). We seek ORR confirmation of this in its final determinations.

It will also be important that we have the necessary financial headroom to make such investments on the basis of future RAB additions. This is clearly in the long term interests of our funders since such investments will be necessary

to improve the long term affordability of the railway. However this is potentially undermined if, for example, ORR assumes in its financial modelling that our risk buffer is used to reduce debt.

### Enhancement risk

ORR has proposed that Network Rail should bear the first £75 million of any overspend on enhancements and that 75 per cent of any further overspend in this area should be added to the RAB provided that this is not manifestly inefficient. ORR has agreed to provide further clarification on how it would determine whether expenditure had been manifestly inefficient. Subject to this clarification, we would accept that 75:25 split provides an appropriate balance between risk and incentive in this area.

We note however that the actual share of overspend borne by Network Rail would be greater than 25 per cent if financing costs are not added to any overspend. Moreover this would be more significant for overspend in the early years which would appear perverse. We assume therefore that financing costs would be included in accordance with the principles implied by paragraph 15.27 of ORR's draft determination.

More fundamentally, we do not agree that it is appropriate for the company also to bear the first £75 million of risk since this represents a very significant proportion of the £200 million annual risk buffer proposed by ORR. This proposal introduces an inappropriate degree of risk. In this context we note that ORR is not proposing that Network Rail retains 100 per cent of the first £75 million underspend and this asymmetry reinforces our view that the proposed approach is inappropriate. In addition, it means that Network Rail could be penalised for any change in the timing of spend (forwards or backwards) even if the total spend is unchanged.

Related to this, we are also surprised that ORR has proposed doubling the level of Network Rail risk which was agreed with DfT for Thameslink Key Output 1. We do not believe that this is necessary to provide a strong incentive to deliver on this critical project.

Finally, we are keen to manage major projects consistently regardless of whether the investment is a renewal or enhancement. The risk allocation arrangements for Thameslink apply to the whole project. There are some other large schemes such as King's Cross which contain substantial elements of both renewal and enhancement. To avoid perverse behaviours we propose that such

schemes are treated in the way proposed for enhancements.

In Scotland there are very few investments which would be covered by the proposed approach. We are therefore discussing further with ORR and Transport Scotland how the proposed approach would be applied more appropriately in this context.

### **Renewal input price risk**

As explained in Chapter 2 of this response, our SBP and our SBP update clearly assumed that an appropriate mechanism would be introduced to deal with input price risk on renewals. If we had not made this assumption we would have proposed higher expenditure projections or risk buffer in the SBP and we would have included the latest LEK position in the SBP update. We remain of the view that these input price assumptions are credible but that there is a risk that they could turn out to be materially wrong.

However, ORR proposes that any overspend relating to unit costs, including changes in input prices, should be disallowed. We accept that this is reasonable for operating and maintenance costs where Network Rail has more control over the costs. However, this could be a major issue for renewals where a larger proportion of our costs are driven by worldwide commodity markets or contractor markets. We fully recognise that Network Rail has a role to play in managing the impact of these risks. However, we do not believe it is appropriate to rely on the re-opener provisions or the risk buffer to deal with these risks.

We note that OFWAT's capex allowances are adjusted ex post based on outturn indices and we can provide further detail on this approach if that would be helpful. We also understand that similar mechanisms are under consideration for the underground. We consider that an equivalent approach should be adopted for our renewals expenditure so that we are able to plan our business with a reasonable degree of assurance without the need for a much greater risk buffer which may not be affordable. While we would not necessarily expect our revenues to be adjusted within the control period, we would need to have clarity on an annual basis about any adjustments to the future RAB arising from this mechanism.

We note that ORR has proposed (in paragraph 15.33 of the draft determinations) that it will use the efficient level of debt to determine allowed revenues for CP5 and that this will include any debt relating to uncontrollable input price inflation

beyond the ex ante assumption. It is very surprising that ORR would be willing to allow this in its debt assumptions while not allowing it in the RAB even though this is outside Network Rail's direct control.

### **Logging up operating and maintenance expenditure**

Efficiently incurred capital expenditure to meet new outputs (such as potential EU interoperability requirements) can be logged up to the RAB and so provide a means of remunerating Network Rail for changed requirements after the determination of the periodic review. However, there are no such mechanisms for remunerating us for any incremental operating and maintenance costs driven by a new requirement. Equally there is no mechanism established to compensate us for any loss of income that could arise as a result of new requirements imposed on the business; a good example could be as a result of rail noise abatement measures currently being considered within the EU where there is potential for freight charges being lowered for wagons with "silent brakes".

Our SBP and SBP update excluded the effect of any of the above cost/income changes and we therefore seek assurance from ORR in its final conclusions that if our ongoing operating and maintenance costs or our charges income is affected by new requirements during the control period then we will be appropriately remunerated. This issue was discussed with ORR in July when it was considered that an appropriate adjustment mechanism would probably be the best way of dealing with this. We seek confirmation from ORR that it will include a specific reference to a logging up mechanism for operating and maintenance costs in its final determinations and suggest that the potential drafting for this is discussed before the determinations are published.

### **Triggering a re-opener**

This section responds to the ORR consultation document issued on 17 July on the procedural approach for conducting an interim review in CP4. It also covers Network Rail's response to the section on re-openers in Chapter 14 of the draft determinations.

The interim review process provides important protections for the business and its investors against changes in circumstances. We therefore welcome the clarity that the guidance on the interim review mechanism will provide. However, we have a number of concerns and comments on the approach and these are described below.

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We are concerned about the apparent requirement (paragraph 33 of the consultation and 4.18 of the draft determinations) that we would only be free to defer ring-fenced fund expenditure once the process to determine whether there should be an interim review has been triggered (either by ORR or Network Rail). As noted above, we have proposed some changes to the arrangements for the RFF and we assume that ORR would wish to modify its interim review proposals in the light of this.

Our proposed approach to the RFF means that there would be a significant lag between Network Rail accruing surpluses for this fund and the capital spend. If Network Rail does not accrue the surpluses, either because revenues are lower than projected or costs are higher, we would clearly notify ORR as soon as practicable that RFF expenditure will be deferred. DfT and Transport Scotland would, in these circumstances, have the option to purchase the relevant outputs in the same way as other enhancement projects without the need for an interim review.

We are also concerned that the proposed additional quantified re-opener could have unintended consequences. In particular, this would appear to imply that ORR would need to consider formally whether there should be an interim review even if Network Rail considered that this was not necessary for it to finance its activities. While the proposed threshold cover ratio may provide a useful indicator, there should not be a review unless we apply for one.

We strongly disagree with the proposed requirement to publish the financial projections in any application we make for a re-opener. Clearly these projections will be provided to ORR, but the requirement to publish forward-looking ratios and other market sensitive information is unnecessary, out of line with regulatory practice and potentially damaging.

We are also sceptical about the requirement for external verification of the financial projections. It is not feasible to verify the robustness of a forecast in the way that this happens during the audit of historical financial accounts and we would welcome further clarification of the reason for this proposed requirement.

There are also a number of issues where further clarification is needed as noted below:

- we would like some clarification of how a Scotland-only re-opener would be applied in

relation to those track access agreements which apply to the networks in both Scotland and England & Wales;

- we would like to understand exactly what the figures would be for the regulatory amortisation assumption (paragraph 4(b) of the consultation). For example, whether they should be adjusted from figures that will be quoted in the final determinations at 2006/07 prices and what should be assumed for “the next three years” when part of that period is in CP5; and
- the definition for the AICR also refers to a forecast for net interest to be paid on our debt in the next three years and says that this will be defined in the final determinations. It is difficult to comment on this without a clearer understanding of the definition and we would welcome early clarification from ORR.

### Amortisation and reactive maintenance

We have undertaken extensive analysis of the potential long term expenditure requirements through the development of our infrastructure cost model. However, there is no single right answer. Rather there is a relatively wide range of credible assumptions which can be adopted for the purposes of assessing the appropriate level of amortisation.

It should be noted, however, that the purpose of a periodic review process is to enable new information on longer term expenditure requirements to be taken into account at each review. This clearly includes an updated assessment of the required level of renewals and the potential for improvement in efficiency.

Finally, while there are some merits in changing the accounting treatment of reactive maintenance there is no imperative to make the proposed change. We will discuss this further with ORR to inform a final decision.

### Affordability

This is the first time the new periodic review process has been tested following the Rail Review and we believe the requirement for government to specify its required outputs and funding available has been helpful. Clearly, it remains for ORR to assess the level of funding Network Rail requires to deliver specified outputs and whether this is affordable within the overall industry-wide funding specified by governments. We rely upon ORR as the independent regulator to reach conclusions which are evidence-based and realistic as well as challenging.



## 6 Access charges, network grant and other single till income

### Track access charges

#### Methodological approach

The process for determining the Structure of Charges in PR08 has been that Network Rail, in consultation with industry, has made proposals for the approach in relation to existing charges. We have followed ORR guidance and objectives, including balancing the need for cost-reflectivity with administrative ease.

We welcome the assessment ORR conducted on our charging proposals. In general ORR was content with the methodology we adopted. However we acknowledge that some further work and further industry consultation is required.

Our response follows the structure of the ORR document and covers any issues we have with the draft determinations and describes the further work we are doing and progress on the consultations mentioned above.

#### Long-run efficiency basis for charging

The ORR's draft determinations on variable charges (including coal spillage) is based on its long-run level of efficiency assumed for the end of CP5 whereas our proposals were based on assumed CP4 efficiency profile and thus more closely reflect the likely level of expenditure arising from changes in traffic.

Overall, the consequence would be a disjoint with our actual costs. This is contrary to the main objective that ORR set for us – to make the charges more cost-reflective. This may send appropriate long-term price signals but it also creates a potential short term misalignment of interests between Network Rail and train operators. This will further cause open access operator charges to be lower than they would otherwise have been, with franchised operator fixed charges or network grant consequently higher than they would otherwise have been.

ORR's proposal would result in a very large reduction in charges compared to current, and means suppressing charges below costs for at least 10 years. If ORR's assessment of long-run efficiency proves optimistic (as we have argued elsewhere) then there is the risk that charges would need to be increased at the next charges review.

To the extent that traffic growth is higher than expected over CP4, our revenue will be lower than our costs. ORR notes that this is covered by the volume incentive. However, this is not allowed for in the calibration so the incentive effect of the volume incentive is therefore diluted.

The final conclusions in this area need to recognise these issues and the need for consistency with other parts of the charging and incentive framework.

#### Variable charge income forecast

ORR's assessment of the income that would be generated by its proposed variable track usage charges appears to be overstated by about £15 million over CP4. This implies that fixed charges would be lower than the level necessary to recover the determined revenue requirement.

#### Scope of variable usage charge

Our SBP update explained that variable usage charges had been based on unchanged capability (in the sense that significant changes in traffic volumes or vehicle types can require step-changes in our maintenance and/or renewal regimes.) We welcome ORR's confirmation that these step-changes are beyond the marginal cost of additional traffic covered by variable charges and would best be recovered through a RAB addition (paragraph 15.34 in draft determinations).

#### Suspension band discounts

We have commissioned some work to quantify the benefit of track friendly suspension to replace the current suspension band discounts derived from a qualitative approach in 2001. We will shortly be publishing a consultation document setting out our methodology and proposals for the new discounts. We will take account of industry views within a two week consultation period and will conduct a workshop and other targeted meetings and conversations to make the best use of this time. We will provide final proposals, taking into account consultation responses, by the end of September so that these can be taken into account by ORR in its final determinations.

#### Coal spillage

We support the ORR decision to levy the coal spillage charge as a per gross tonne mile mark-up on the variable charge and welcome ORR's agreement to our proposal for a discount for customers who can demonstrate that they have minimised, and are continuing to minimise, coal spillage from their wagons. We note, however, that by setting the charge at end CP5

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levels of efficiency, and thus considerably lower than costs, means that the incentive effect of the discount proposal is reduced. We published a consultation document setting out our methodology and proposals for the discount arrangements on 21 August and have asked for responses by 12 September so that industry views can be taken into account by ORR in its final determinations.

### Electricity for traction

We welcome the ORR acceptance of our proposal that freight operators could retain MLUI if they wished, that the freight tariff should be rebased and that freight operators should be included in the "wash-up", subject to assessing how to deal with the risk.

We have developed a new set of consumption rates for passenger trains and are currently consulting on these. We will discuss with ORR the feedback we get from industry stakeholders on the principles and methodology soon after the closure date of the consultation. We will also revise the consumption rates to address the feedback we get from interested parties, where appropriate, in advance of the final determinations. On 22 August we also released a consultation document on a methodology for calculating freight consumption rates. We have asked for comment by 5 September.

### Discounts for regenerative braking

Since the default discounts were proposed, a small number of trains on the DC network have started using regenerative braking. Initial results indicate that the rates should be significantly higher than we originally assumed (our original rates were based on engineering judgement). However, given that the evidence is limited at this stage and there are many factors that may influence regeneration on the DC network, it would seem prudent during CP4 to approve the discount factor on a case by case basis, based on the best available evidence for each fleet.

### Capacity charges

We welcome ORR's endorsement of our proposal to base the capacity charge on an average tariff for each train service group for passenger operators and a single average tariff for freight operators, in each case differentiated by weekday and weekend. The consultation document we issued on 22 August set out our detailed methodology to take account of:

- the weekday / weekend split;

- changes in the Schedule 8 payment rates since the charge was originally calculated in 2000, and;
- changes to the benchmarks.

The consultation closes on 5 September.

Proposed rates will be circulated shortly after ORR completes the recalibration of the Schedule 8 benchmarks. Our final proposals, taking account of industry comment, will be shared with ORR in order to be reflected in the final conclusions.

### Effluent charge

Although most trains that run on the rail network have retention tanks to hold waste from toilets and washrooms, some of the older rolling stock are not fitted with them and directly release effluent onto the track which contaminates the ballast and sleepers. This necessitates periodic cleaning and accelerated re-ballasting. At the Industry Steering Group (ISG) meeting in July it was agreed that it would be appropriate to develop a specific mechanism for charging for effluent during CP4, so the costs could be passed through to those operators who cause them. We have proposed that the mechanism will take the form of a mark-up to be applied to the variable track access charge for each vehicle running on the network that have toilets without retention tanks. We have recently issued a joint consultation with ATOC and have asked for responses by 19 September.

### Fixed track charges

We have drawn ORR's attention to a number of errors within the draft determinations that mean that the income that would result from the determined charges would not reflect the revenue requirement. These include:

- the overstatement of income from variable charges;
- the understatement of income from EC4T charges; and
- the double counting of elements of property income.

We are keen to work closely with ORR to ensure that there are no errors in the translation of the final determinations into the calculation of fixed track charges.

### Network grant

From our perspective, network grant is entirely substitutable for the fixed track access charge and this has no impact on the company either in terms of finance or accountability to our customers. However, there are important

presentational and other issues. We note that ORR intends to set the network grant such that there is no headroom from the maximum limit set by the Government investment test and only minimal headroom from the limit set for the other Government accounting rule, the market body test.

This means that if actual capital expenditure is less than the final determination allowances (e.g. through efficiency savings, changed circumstances or re-phasing) then the investment test would be breached. We would be concerned if this led to any implications on us and seek comfort from ORR that this can be addressed and that it will not unduly impinge on Network Rail's operating flexibility.

We are more concerned about the market body test and seek similar clarification regarding the possible breach of the test that could arise through lower than expected variable track charges or property income and/or higher than expected operating and maintenance costs or depreciation.

In view of these comments we suggest that the headroom compared to the limits for both Government accounting rules that ORR uses in setting the level of grant is increased. We propose to discuss this with ORR and government.

It is also worth noting that the reason why we had previously accepted that a significant portion of our income is received as grant is because it had no implications for us but was administratively convenient for our funders. For presentational reasons, however, we believe it is important that values for fixed track charges are shown as if there were no grant as well as showing figures with grant. This would also enable comparisons of access charges with other European railway infrastructure managers to be made on a more equivalent basis and not give a misleading impression about the level of public subsidy relative to other countries. The proposed approach would mean that Network Rail may be receiving significant grant even if the total subsidy to the industry were eliminated.

We understand that ORR discussed this aspect of its draft determinations with Government; it is surprising that our views were not sought at the same time.

### Station long term charge

In its draft determinations, ORR stated that it had decided that long term charges (LTCs) should be

retained at a station level, but that this should be consistent with and underpin the proposed move to a more portfolio based approach at stations.

Since publication of ORR's draft determinations we have published two consultations on the structure of LTCs, relating to franchised stations and managed stations. We will be writing separately to ORR, to outline the key points raised by the responses, and summarise these below.

### Franchised stations

On 1 August 2008 we issued a consultation to industry stakeholders regarding our proposals for franchised stations. We proposed that LTCs should be based on our current projections of expenditure for the portfolio of stations operated by each train operating company. These current projections are based on bottom up work plans that we are developing and result in a reallocation between the portfolios of the total projected expenditure published in our SBP update.

Although our work on bottom up plans is ongoing, we consider that the level of change between each portfolio is sufficiently material that LTCs for CP4 should be based on the reallocated values as consulted in August. This is in order that LTCs appropriately underpin the portfolio based approach.

Our consultation set out our revised allocation of expenditure between portfolios, the methodology that we used and what this could mean in terms of the annual charge per station.

We received eight responses to our consultation. Five out of the eight responses were supportive of our proposal and none opposed it.

The key issues related to:

- the proposed level of expenditure and our ability to deliver;
- the role that condition would play in expenditure;
- the reallocation between portfolios; and
- the visibility of Network Rail's expenditure plans.

We believe that none of the comments received suggest that our proposal for the structure of LTC should be amended. Indeed, most relate to the industry's plans for integrated station planning, the development of which is being overseen by the Joint Stations Board. We will address the

specific comments raised in more detail in our separate letter to ORR on this issue.

### Managed stations

On 22 August we issued a consultation on LTC at managed stations.

We have proposed that individual station LTCs at managed stations for CP4 should be calculated on the basis of the long run efficient costs (i.e. averaged over CP5 to CP10) rather than on the CP4 efficient costs. We consider that this would be in line with ORR's draft determinations and is appropriate due to the effect on CP4 costs of the very large schemes such as those at King's Cross and Edinburgh Waverley.

The integrated stations planning principles and process which are being developed by the Joint Stations Board will encompass Network Rail managed stations as well as the franchised estate.

The deadline for responding to this consultation is 5 September, and we will again write separately to ORR to outline the key points raised by the responses we receive.

### Other charging issues Increments and decrements

We have been fully engaged in the ORR review of the impact of passenger transport executive sponsored increments/decrements on our costs and agree that the issues should be dealt with through the investment framework. We are pleased that ORR has addressed our concerns about dealing with them as part of the track access contract. We will continue to provide our views in response to the guidelines that ORR intends to publish and consult on.

### Change of law provisions

We acknowledge the removal of the change of law provisions currently in Schedule 7. In practice these risks have been managed through other mechanisms (the RAB and re-openers) and it is important that these are clarified.

### Billing system

The draft determinations state that ORR expected a "shadow-run" of the new billing system during summer 2008. However, as we have informed ORR this will more usefully take when we have more fully developed the system to take account of the draft determinations. This is expected to be early December 2008.

### Other single till income

#### Other income

The income forecast "other income" in the draft determinations is overstated. However, we understand ORR has now identified an error in its calculation whereby certain elements of property income were included which had already been included elsewhere. ORR has agreed that it will correct this in its final determinations. The impact of this is that the non-regulated stations income for CP4 remains at £391 million (as per the SBP update) and total "other income" excluding Euston and Victoria is £1,704 million as shown in Figure 6.1.

We note ORR's comments on the suggested treatment of hypothecated gains relating to the use of returns from development to enhance operational property up to the value of £296 million. We believe that further discussion we have had with ORR since the drafting of the draft determinations has demonstrated a convincing case for this course of action and we therefore accept this conclusion.

As noted below, however, the projected level of gains now appear very optimistic in the light of changes in the wider economy and given likely planning issues, in particular, the inclusion of additional income of £59 million and hypothecated gains of £146 million relating to the proposed developments at Euston and Victoria stations. Figure 6.1 shows the projected impact of these changes against the SBP update and the draft determinations.

We also note that issues have been raised with ORR about the approach to shared value. We assume that ORR continues to support the

**Figure 6.1 Other single till income**

£ million (2006/07 prices)	SBP update	ORR draft determinations	Change
Property rental	942	942	-
Property sales	128	186	58
Non regulated stations	391	628	237
Depots	231	231	-
Other	12	12	-
<b>Total</b>	<b>1,704</b>	<b>1,999</b>	<b>295</b>

current approach and we note the need for consistency.

## Property income

### Retail demand at stations

In the draft determinations, ORR maintains that our property income projections are conservative. This opinion appears to be based on a report by DTZ Pleda (DTZ) which peer reviews the work done, involving ORR throughout, by Lambert Smith Hampton (LSH). DTZ considers that an annual increase in rental income from managed stations of 0.5 to 1.0 per cent is modest compared to projected footfall increase of three per cent per annum. DTZ also considered that our forecast to outperform the IPD benchmark index by 0.5 per cent per annum was also conservative. We are unclear as to the evidence which supports the DTZ opinion that retail units on stations should be able to consistently and significantly outperform an index which is based on retail on the UK as a whole.

ORR treated the apparent conservatism in our forecasts by specifically including the potential income from developments at Euston and Victoria stations. We considered both of these projects to be too early in their development and therefore too high risk to be included in our income projections.

We have provided ORR with further information underpinning the methodology we used in deriving our rental income from managed stations. In this we demonstrated that there is not a direct relationship between footfall and rental income. This is a view supported by our property consultants, LSH, who have considerable experience in managing the retail estate at stations, on behalf of both Network Rail and franchisees.

Ultimately, demand for retail facilities will be constrained by the capacity at stations to accommodate retail units. As stations become more crowded, space previously used for retail units may need to be released to accommodate the increased numbers of passengers and to alleviate crowding. This has already started to happen at some London stations. There is also a limit to the number of customers that can be served by the retail units on stations before the waiting time caused by increased footfall and crowding results in potential customers leaving to shop elsewhere.

## Changes to the property market and general economy

Since our SBP income projections were developed, there has been evidence of a downturn in the general economy with particular impacts on the property market. Evidence of the emerging downturn existed at the time of the forecasting work for the SBP update, however, we took the view at that time that it was possibly a short-term fluctuation and therefore did not adjust our forecast to reflect the trend at that time.

The overall outlook for the economy has continued to worsen since the SBP update was published and commentators and economists are now warning of a risk of recession and the possibility of stagflation, with the impacts being felt worldwide.

The property market in particular has been hit by the international "credit crunch". The impact of this has been to reduce liquidity in the property market, making it more difficult to fund all aspects of our property business (rental, sales and development).

We therefore consider that our income forecasts in the SBP update are now at risk. In order to assess the impact of the current situation we retained LSH to re-evaluate its earlier work in the light of recent economic developments.

A summary of the changes to those economic conditions which affect the property market is below:

- economic growth forecasts as of July 2008 were significantly lower (1.4 to 1.7 per cent) compared to 2.5 to 3.0 per cent at the time of the SBP update;
- emergence of significant commodity price inflation;
- rental growth forecasts down from 2.4 to 2.1 per cent; and
- higher cost of credit finance.

However, recent data from the Office of National Statistics indicates that growth slowed to zero in the first quarter of 2008. These economic effects are likely to impact on our forecasts. This impact is explained below.

### Property rental

The SBP forecast our rental income at around £942 million. LSH has now reassessed this to £909 million. The reduction consists of:

- £11 million reduction in commercial property income due to market conditions;
- £10 million net income for Puddledock which will not be received (this risk was identified in the SBP update); and
- reduced consumer confidence and associated spending leading to a reduction in income from the retail estate of £13 million.

### Property sales

The SBP forecast our sales income at around £128 million. ORR increased this by £59 million through the inclusion of the potential cash elements of developments at Euston and Victoria to £186 million.

For property sales LSH has now reassessed the net profit in CP4 down from £128 million to £95 million, a reduction of £33 million (excluding Euston and Victoria). Hypothecated gains are reassessed as £109 million, a reduction of £41 million. These adjustments are driven by the economic uncertainties described above, in particular the downturn in the housing market which represents a significant proportion of the development potential of the estate. These uncertainties are reflected in significant levels of redundancies recently announced by the major household development companies.

We believe that the inclusion of the cash elements emanating from the potential to develop Euston and Victoria stations is not realistic or appropriate. The risks relating to the delivery of financial benefits from the Euston and Victoria developments are assessed in detail below and we believe that these elements should be excluded from the income forecasts.

### Euston and Victoria

The inclusion of potential income from developments at Euston and Victoria stations in ORRs assessment of our sales income was made despite the presentation of further compelling evidence that their inclusion would not be appropriate. It was shown that these initiatives are at a very early stage in their

development and that there is significant risk to the income which may be secured, and the timing of the schemes. The risks to delivery, returns and timing are explained further below.

### Scope and deliverability

The construction of significant developments over these station premises is technically highly complex, with the requirement to build over the operational railway in a constrained footprint whilst minimising disruption to train services and customer facilities in two of the busiest locations on the network. It will also be necessary to plan any development in a way which takes account of potential requirements for new lines which could be developed.

### The property market

The deteriorating state of the property market in London has created a much more challenging environment in which to launch schemes such as these. The property sector as a whole is already experiencing a significant down turn, particularly so in the residential sector, where development values have reduced by approximately 20 per cent over recent months.

### Planning and consents

The change in London Mayor may result in a change to the acceptability of certain types of schemes. The new mayor has explicitly expressed his desire to use the planning process to protect landscape and river views when considering approval for new developments in central London.

Both the Euston and Victoria schemes are located in protected viewing corridors, and yet will need to be built to a height which enables adequate financial returns from the developments to be secured. The new policy regime would appear to put the approval of financially viable developments on these sites at risk. The Victoria development in particular would take place in a sensitive location, close to Buckingham Palace, and potentially involving alterations to listed buildings. A proposed

**Figure 6.2 Other single till income variance to SBP update**

£ million (2006/07 prices)	SBP update	ORR draft determinations	Current view	Variance to draft determinations	Variance to SBP update
Property rental	942	942	909	(34)	(34)
Property sales	128	186	95	(91) <sup>1</sup>	(33)
Non regulated stations	391	628 <sup>2</sup>	391	(238) <sup>2</sup>	-
Depots	231	231	231	-	-
Other	12	12	12	-	-
<b>Total</b>	<b>1704</b>	<b>1999</b>	<b>1638</b>	<b>(363)</b>	<b>(67)</b>

Note 1: Exclusion of Euston and Victoria is £58 million

Note 2: this was a calculation error in the draft determinations - ORR acknowledges the correct figure is as per the SBP update



development of tall buildings on nearby land has recently been rejected by Westminster City Council.

### **Commercial risks**

Both developments remain subject to completion of development agreements, detailed design, consultation and planning. It is likely that the assumptions used to date will change as the projects develop, and that forecast delivery timescales and financial returns are therefore subject to risk.

The financial viability of the developments is reliant on an exemption from the Community Infrastructure Levy, and clarification is being sought from the Department of Communities and Local Government on this issue. It is also likely that financial viability will require a level of cost set-off between station improvements and the usual Section 106 requirements.

The nature of the development at Euston may require removal of existing buildings on Euston Piazza, which are held by a third party on long leases. This would considerably increase the overall cost of the development. In any case, no cash gains are expected from this development (after paying for station improvements).

Even if all these issues are resolved, current planning assumptions suggest that financial returns to the industry are only likely to start towards the end of CP4, with completion of the developments and full realisation of benefits significantly later.

In conclusion, the level of income forecast from the potential developments at Euston and Victoria is therefore at significantly greater risk than when described in the SBP, and furthermore, it is likely that any financial returns will not be realised until CP5 or beyond.

## 7 Contractual and financial incentives

In this chapter we provide our response to ORR's draft determinations in respect of:

- Schedule 8;
- Schedule 4;
- the volume incentive;
- the efficiency benefit sharing mechanism;
- fine tuning delivery of the HLOSs; and
- ORR's approach to holding Network Rail to account.

### Passenger Schedule 8

Network Rail accepts most of the draft determinations, in particular the starting point that the structure of the passenger performance regime is still appropriate for the industry.

We believe that the recalibration period is appropriate; that there is an appropriate mechanism in place to bridge the period between the recalibration period and the start of CP4; and that Network Rail's benchmarks should reflect our improved performance trajectory over the control period.

We also agree with the proposition to amend the provisions relating to Expert Determination (paragraph 17 of Schedule 8). We will comment separately on the revised legal drafting, in line with the timescale set out in ORR's consultation on draft Schedules 7 and 8 of Track Access Contracts.

However, we have reservations over two aspects of the draft determinations. These relate to the decision not to update Network Rail payment rates for changes in real fares revenue; and the proposed basis of the Sustained Poor Performance (SPP) threshold.

### Network Rail payment rates

ORR proposes not to update the Network Rail payment rates for changes in real fares revenue, on the basis that the current rates were revised in the 2005 performance regime review. However, this fails to take into account the rapid growth in fares revenue since 2004/05 (the year on which the current rates are based).

In 2004/05 industry fares revenue was £4,158 million. In 2007/08 this was £5,555 million; and at current growth rates it might be expected to be approximately £6,000 million for 2008/09. This represents real revenue growth of approximately 25 per cent between 2004/05 and 2008/09. By the end of CP4,

assuming growth of, for example, three per cent per year in passenger numbers and one per cent per year in real fares levels, real revenue growth over 2004/05 might be approximately 50 per cent.

To leave rates unadjusted for such growth would create a significant risk that Schedule 8 (and therefore Schedule 4) would understate the impact of performance and possessions on TOCs' revenue. This would undermine their effectiveness as liquidated damages regimes, and lead to TOCs having to resort more often to negotiated compensation arrangements (if available) or suffer uncompensated losses (in cases where negotiated compensation is not available).

Updating the payment rates for changes in real fares revenue should not be a complex or expensive process, as it can be based on historic data on fares revenue by service code (which should be readily available). We therefore believe that this should be considered as part of the review.

### Sustained poor performance

We do not believe that the decision to set the Sustained Poor Performance (SPP) threshold at a level "equivalent to the worst one per cent of Network Rail's actual performance..." is appropriate.

Firstly, we believe that the statement in the draft determinations that was "in line with the industry group's recommendation" is inaccurate; our recollection being that it was, rather, presented to the group as a view of ORR.

Secondly, this approach appears to imply that it is desirable for the threshold to be breached occasionally; we do not agree.

We do agree with ORR that the level of the threshold should be the point at which Schedule 8 rates start materially to under-compensate TOCs for changes in revenue and we share ORR's concern about the lack of evidence on which to base the threshold. However, it appears logical that the threshold should be independent of the benchmark. That is, there is no reason to believe that the threshold should reduce as the benchmark reduces. Indeed, our experience over the last few years is that, at current levels of performance, operators have been concerned that the payment rates if anything over-state the marginal effect of performance on revenue. This does not support any reduction in the threshold.

Whilst we have yet to see the impact of ORR's proposal on individual operators, we therefore do not believe that there is any evidence to suggest that the thresholds should be significantly different to the current levels.

### Freight Schedule 8

Network Rail is content with the general thrust of the changes to the regime. We will comment separately on the legal drafting of changes to Schedule 8 (as set out above) and also on the final figures to be used in the regime, following their presentation at the industry seminar on 13 August.

On one point we do not agree with the draft determination. The document states that the introduction of a cancellations benchmark obviates the need for an additional Access Charge Supplement (ACS). We disagree with this statement in two respects.

Firstly, our understanding is that the proposed "benchmark" is not a benchmark in the usual sense of the term, being a level of performance (in this case cancellations) at which no money changes hands between Network Rail and the operator. Rather, we understand it to be simply a threshold above which Network Rail pays a higher rate for cancellations. The "benchmark" is zero, in the sense that Network Rail will pay compensation for every cancellation.

Secondly (and irrespective of the above point), the proposed regime does not appear to be financially neutral. As stated above, our understanding is that, under the proposed regime, Network Rail will pay for every cancellation, with no possibility of payments from an operator to Network Rail. And even if we have misunderstood the proposed benchmark, the regime will still not be financially neutral, as Network Rail will pay more (per cancellation) for periods of poor performance than it will receive for periods of good performance.

In either case, the regime is not financially neutral; there is clearly an expected cost to Network Rail. Our firm view is that an ACS or equivalent is therefore essential. This is in line with the treatment of template passenger performance regimes in CP1, which attracted an ACS in part because of the asymmetric payment rates in the regime (with Network Rail paying a higher marginal rate for poor performance than it received for good performance).

### Schedule 4 (possessions regime)

As we have previously stated in our responses to the individual consultations on both the passenger and freight possessions regimes, we fully support the desire to remove the compensation mechanisms for Network Change possessions from Part G of the Network Code and amalgamate them into revised possession compensation regimes. We support the proposals for the passenger regime published in the draft determinations and have engaged fully in formulating those for the freight regime.

The draft determinations stated that Schedule 4 Access Charge Supplements (ACS) for franchised passengers TOCs could not yet be finalised as they would depend on assumptions regarding possession notification and network availability. ORR subsequently proposed, in its consultation published on 11 July, a total ACS of approximately £704 million over CP4 in respect of maintenance and renewal activity. This was based on the total ACS of £908 million proposed in the SBP, adjusted for four factors:

- revised forecasts of network availability, consistent with ORR's proposed target for the Possession Disruption Index for passenger services (PDI-P);
- removing the uplift to Schedule 8 payment rates, to reflect real revenue growth, that had been assumed in the SBP;
- the fact that activity volumes in the draft determinations were slightly below those in the SBP; and
- ORR's reduction (from £8.5 million per year in the SBP to £5 million per year) in the allowance for emergency timetables (principally due to extreme weather).

As noted elsewhere in this response, we have concerns over the proposed PDI-P target. We believe that the payment rates should be uplifted to reflect real revenue growth, and that the activity volumes in the SBP remain appropriate. We presume that the Schedule 4 ACS will be recalculated as necessary to reflect the final conclusions on these issues.

However, given the draft determinations on these issues, we accept that ORR's proposed Schedule 4 ACS has been calculated appropriately, with three exceptions.

First, if the payment rates are not uplifted to reflect real revenue growth, this will increase the extent to which TOCs will need to claim negotiated compensation for revenue loss. We expect that this would add an additional

£10 million to £15 million to the cost of Schedule 4 over CP4 as a whole, and we would expect this to be reflected in the ACS.

Second, the proposed ACS uses the proposed PDI-P target. This target relates to all activity (maintenance, renewals and enhancements). For purposes of the ACS the relevant PDI-P projection is that relating to maintenance and renewals, but excluding enhancements. This adjustment would add approximately £5 million to the ACS.

Finally, we are concerned at the treatment of compensation for emergency timetables. Our SBP figure of £8.5 million per year was based on 2005/06 to 2007/08, as these were the years for which Schedule 4 data was readily available. The implication was that years such as 2007/08 (which accounted for the bulk of the emergency timetable costs) might occur once every three years. We accept that this slightly overstates the historic frequency of such poor weather. However, we also note the widespread view that the frequency of extreme weather events is increasing. ORR's proposed allowance of £5 million per year does not take this risk into account.

### Volume incentive

We agree that a volume incentive mechanism should be retained. However, there is an inconsistency in the ORR proposals for potential payments between that described in Chapter 15 and that described in Chapter 27 of the draft determinations. We seek clarification of this in the final conclusions.

We support the proposal (paragraphs 27.13 and 27.14) that any payments to us under the volume incentive would be in terms of a cash amount rather than the current mechanism of a RAB addition. We note, however, that in both cases we are effectively able to invest in anticipation of future income and we do not therefore agree that the proposed change materially enhances the incentive.

We also support the proposal that the amount would be logged-up annually in a memorandum account, with the subsequent payment made as a lump sum cash amount at the beginning of CP5 that we could use at our own discretion to invest in the network. However, paragraph 15.40 in ORR's draft determinations implies something slightly different by suggesting a gradual release of payments from the account rather than a lump sum.

We seek confirmation from ORR that the arrangement set out in Chapter 27 will apply.

We note that ORR has proposed a reduction in the marginal incentive rates. While we have some reservations about this we recognise the rationale. Of much greater concern is the proposal that the baseline is set at the expected level of traffic. Since there is an equal probability that we will be above or below this baseline, this means that the actual expected incentive rate is half that which ORR intended. Indeed it is more likely that decisions would be made on the assumption that there is no volume incentive. This should therefore be revisited if we are to improve the alignment between Network Rail and train operators while also offsetting any shortfall in variable track access charges.

### Efficiency benefit sharing mechanism

We want to work in partnership with the rest of the industry and to help encourage co-operation and joint working we welcome the proposal that a proportion of any outperformance against our efficiency targets should be shared with operators.

We remain very strongly of the view that any mechanism needs to be simple and that it needs to be applied at a high level to be able to reflect the inter-relationships between different elements of spend as well as different parts of the network. In addition, we note that this proposal is conditional upon operators being able to retain any outperformance benefit share.

### Fine tuning delivery of the HLOSs

We welcome the intention to establish a mechanism to allow the 'fine tuning' of our regulatory outputs if an alternative more efficient means of delivering the HLOS requirements was found. It is critical that we have the flexibility to deliver these required outputs in the most efficient manner, and that we are able to take account of changes in circumstances or knowledge during the control period. We note that the details of the mechanism are to be discussed prior to ORR's final determinations in October. These details could be critical to the practicality of the mechanism and the way it could impact on us and so we would expect early engagement on this.

### Holding Network Rail to account

We support ORR's intention to focus its monitoring of our performance on the regulatory outputs. However, we do have some concerns that this may not be reflected in actual practice

and have sought clarification on this principle. In addition, we have some concern with two specific aspects of Chapter 31 of ORR's draft determinations, namely:

- in paragraph 31.14 ORR comment that monitoring of renewal activities will be in comparison to the volumes in our SBP update. We think this must be a mistake, and believe that actuals should be compared to our CP4 delivery plan or as subsequently revised during CP4; and
- in paragraph 31.19 ORR comment that we will be required to publish key financial ratios, however, as noted in our response on the financial framework, we strongly disagree with this proposed requirement. Clearly, we are happy to provide projections to ORR, but the requirement to publish forward-looking ratios and other market sensitive information is unnecessary, out of line with regulatory practice and potentially damaging.



## 8 Licence modifications

ORR has published a separate consultation on proposed changes to our network licence on 5 June 2008, with a further consultation on financial conditions by letter dated 17 July 2008, published on 18 July 2008. We are incorporating our response in respect of both of these with our comments on the draft determinations generally.

We are particularly keen to ensure that moving into the next control period our network licence adopts a more 'purposive' (or principles-based rather rules-based) approach. By this we mean that the licence should clearly set out what is expected of Network Rail as a best practice network operator. However, as far as is reasonably practicable, we believe that responsibility for securing compliance with these obligations should be left with the industry, with ORR retaining 'back-stop' powers to intervene where appropriate.

Network Rail believes that this review of our network licence presents a valuable opportunity to reform the existing regulatory regime so that our network licence is fit for purpose moving into the next control period. This review therefore forms an important part of the overall periodic review process.

Since the establishment of Network Rail we have taken major strides forward in terms of our overall stewardship of Britain's railway infrastructure. However, as was highlighted by the January 2008 engineering overruns, there is absolutely no room for complacency. It is Network Rail's ambition to be recognised as a world-class infrastructure manager working with our customers to provide an excellent service to passengers. However, we accept that this is an accolade that we need to earn. To do this we believe in five key principles, for which the licence should be an enabler:

- doing the "right thing" from a whole industry perspective;
- better understanding the needs and priorities of our customers;
- consistently delivering on our promises through the creation of clear and effective accountabilities;
- establishing clear accountabilities between industry parties; and
- empowering the industry to make its own decisions with ORR engagement where necessary and appropriate.

These principles are discussed more fully in our response to ORR's specific questions on its review of our network licence as set out below.

We are also providing separately a mark-up of the proposed licence text in relation to the non-financial conditions with comments and suggestions, including points in addition to those set out in this response.

We will have further comments and suggestions to make in relation to the licence drafting arising out of clarification which we are seeking and discussions which we consider will be needed with ORR. We may also have further comments as part of the subsequent consultation process following further review of ORR's proposals. We are keen to have a licence that is more clearly structured and easier to understand; but at the same time, care must be taken to avoid unintended consequences.

### Non-financial conditions

The June consultation raises specific questions, which we comment on below.

### Purposive approach

We agree that a purposive (or principles-based rather than rules-based) approach to the licence in general is appropriate, and that this should afford flexibility to enable us to choose how best to fulfil our obligations. However, this requires that ORR policy is clear and consistent in relation to the purpose and there is continued recognition of what is reasonably practicable in the circumstances we face.

An essential aspect of the purposive or principles-based approach should, we believe, be to remove any potential for Network Rail to be in a position where a technical breach of the licence may appear to exist where we are nonetheless "doing the right thing" from a whole industry perspective.

### Network management obligation

We agree that the network management obligation should be set at the heart of the licence. However, it needs to be clear that the relationship between this obligation and the more specific obligations elsewhere in the licence should not give rise to conflict.

The amendment in paragraph 3.6 of the consultation document (which entails removing reference to taking steps as necessary or expedient to achieve the network management purpose) should not preclude recognition that achievement of the purpose is affected by what is

reasonably practicable having regard to all the circumstances.

This principle is fundamental since the concept of best practice, for example, cannot be considered as an absolute standard which is independent of the circumstances, but it must reflect the starting point, rate of progress and prioritisation in the face of competing requirements.

## Planning, capacity allocation and asset management activities

### Planning activity

We endorse the distinction between planning for delivery and more strategic industry planning, and also replacement of annual business plans with a delivery plan for the control period, which may be updated during that period. Planning documents generally are expressed to be subject to ORR notices / guidelines that will specify requirements, including an objection procedure. It would be helpful to understand whether this is envisaged to be a series of different procedures for different types of document, or a more general statement as regards requirements and/or objection arrangements.

In view of the potential significance of such procedure(s) for major documents such as route utilisation strategies, we believe that work should be undertaken with ORR so that we may understand what is entailed before formal statutory consultation on licence modifications. We would expect that this should clarify, for example, expectations as regards a framework of annual updates of five yearly delivery plans and how any objection procedure would apply to such updates. It should also clarify the objection procedure for route utilisation strategies, given that the existing provisions would disappear from the licence.

### Capacity allocation activity

We recognise that exploration of capacity allocation potential is an activity for which third parties may look to us. We note the proposed licence obligation and, following discussions with ORR earlier this year as regards stakeholder expectations in relation to access planning, we are reviewing the inclusion of information along the lines of a code of practice in future network statements that will assist such parties.

### Asset management activity

We believe that the requirement to publish asset management policies/criteria is inappropriate as a licence condition. The network management condition itself supplies an obligation as regards

the manner of achieving the purpose of asset maintenance, renewal and improvement. Our achievement of this may be expected to entail a strategic approach, but it is not necessary that this is fulfilled through a suite of policies and that these, in addition to the delivery plan, are published.

ORR has not said in its consultation what problem it is seeking to solve by proposing this requirement. Network Rail has made considerable progress in the development of our asset policies through a proactive approach and we have discussed these policies with key stakeholders, including relevant suppliers. ORR has commented favourably on these developments and we are therefore surprised at the proposal. Indeed, we are concerned that this could stifle development of our policies.

The specificity of current licence condition 24 arose from a historic position, as regards which a focus was required for (then) Railtrack to establish an asset register. We believe that the progress that we have made as regards asset information is such that a more general purposive obligation will now be appropriate. Further progress in this area remains a major priority for the business, regardless of the licence condition.

### Timetabling process

We recognise that our timetabling roles can be characterised as relating to timetable publication (now electronic), advance information provision to train operators and making information available to enquiry bureaux; and that clarification of the existing timetabling provisions would be helpful.

The current provisions are unfit for purpose by virtue of giving rise to potential breach of licence when Network Rail may have been acting in the best interests of passengers. This follows from minute 26 of ORR's Board meeting of 19 February 2008 in which it was concluded that "there had been a breach of condition 9 of the network licence in relation to the taking of a late notice possession at Rugby on 31 December 2007", but "Network Rail had acted in the longer term interests of its customer and rail users in seeking to complete the work" and "that Network Rail was justified in taking the action that it did".

We recognise that it would have been preferable if this situation had not arisen but we believe that there is agreement that the current licence conditions are flawed.

We believe that the proposed licence provisions go a considerable way towards addressing this issue.

### Dependent persons code

We consider that the present stakeholder provisions in our network licence are disjointed and do not present a clear overall expression of how we may appropriately be expected to interface with our stakeholders. We endorse the proposed changes.

We are keen to hear directly from our customers, suppliers and other stakeholders where they have difficulty in dealing with Network Rail. This is fundamental to our ability to drive improvements in processes and behaviour across the business. Where they are unable to obtain a satisfactory response at a senior level, we recognise that ORR can have an important part to play. However, we believe it would be unfortunate if this were to be regarded as the first response to such situations.

### Management incentive plan

Network Rail supports the need for transparency in relation to the management incentive plan (MIP) including publication of the way in which the criteria have been applied. Indeed, the Chairman of Network Rail's remuneration committee has met regularly with ORR to explain the basis for its decisions. The annual report also complies with Combined Code requirements relating to disclosure of details of the mechanism for calculation of potential awards and the resulting awards (i.e. actual in the reported year and potential in the following year) for each executive director. This year's annual report also contained even more detail of the way in which the committee had exercised its discretion under the MIP.

However, we are concerned that what we would be required to do under proposed condition 16.9 is unclear. Before commenting further on this we would therefore welcome clarification from ORR about whether it would regard the information which was provided this year as sufficient for the purposes of this paragraph.

This condition 16.9 also makes reference to any assessment of the licence holder's performance provided by ORR during the course of the year to which it relates. We are surprised that ORR considers it necessary to state this. Indeed Network Rail and its remuneration committee have always attached great importance to the need for an objective and timely assessment by

ORR of Network Rail's performance for this purpose.

There are several further points of clarification which we believe should be addressed in relation to the proposed changes to this licence condition.

First, the current licence condition (LC 28.5.2) provides for an undertaking to have been obtained from our holding company, but does not require that the undertaking shall be for the holding company to implement and comply with the incentive policy (as referred to in proposed licence condition 16.3). There is no point in changing this for companies that have no employees. We therefore suggest that no changes are made, particularly any that would prompt a need to procure a new undertaking, when the existing one should suffice.

Second, in proposed licence condition 16.5, we believe that the wording "ensure that it creates appropriate incentives to comply with" (replacing the current licence wording "have regard to...") suggests an obligation that could be interpreted as overly rigid. We are concerned that:

- this might lead to a supposition that measures are required, linked to all conditions / access agreements;
- in consequence, this runs the risk of increasing the complexity of the MIP when there is general agreement that the converse is needed, namely that the MIP needs to be simplified; and
- this is potentially at odds with the terms of the incentive policy itself.

We consider that the wording could sufficiently recognise the need to address compliance incentives, if amended as we suggest in the mark-up we are providing.

Third, given the wide scope of the factors identified in paragraph 16.5, and our concerns expressed in the comments above on that condition, we believe that it would be appropriate to amend condition 16.6 so as to clarify that it is not intended to over-ride the terms of any MIP established in accordance with the preceding paragraphs and to which ORR has not objected as inconsistent with those requirements.

Fourth, we note that the proposed wording of condition 16.7 omits the current licence reference to "an indication of the criteria". We seek to understand from ORR, what is the issue which the deletion of current wording is intended to solve?

Although question 6 is directed towards the MIP licence condition, this part of ORR's consultation also touches upon other corporate governance issues. We note that ORR intends to consider separately at a later date whether changes to the corporate governance provisions may be required. Given that the present review is a wide ranging one moving away from detailed or procedural obligations, we believe that there is a case for deleting now, without waiting for that later review, the requirement for ORR approval of directors' railway experience, which no longer represents proportionate regulation. We have also some other comments in the licence mark-up which we are supplying for consideration and which should not impact on any wider corporate governance review.

### Restructuring the licence

We endorse the overall restructuring of the licence which, with drafting simplification, should make the licence easier to understand, both for our stakeholders and ourselves. Improved understanding should help improve accountability. However, this has resulted in significant changes in the drafting and we have yet to complete our review to establish that there are no unintended consequences.

### Guidelines and notices

In general, we concur as regards the advantages of flexibility and clarity of core obligations in moving process details into guidance or notices.

However, there are areas where we would need to understand the impact of this, and would expect to see initial guidance framed before the statutory licence modification process is commenced. An example would be the objection procedure in respect of the delivery plan updates and route utilisation strategies.

In addition, future changes to all such guidance / notices should be subject to prior consultation, with due regard given to any representations received. There is a case for providing, at least where the change would currently be a licence change for which Network Rail has rights of objection that could trigger a Competition Commission referral, that similar rights continue to apply to what would then be guidance / notices rather than licence provisions (if the Commission were to accept jurisdiction conferred in this way, rather than expressly by statute).

### Systems code

The systems code provisions were, we believe, introduced in 1996 in order to provide industry protection as regards the continued use of legacy

systems which enjoyed shared usage. The extent of usage of the code by Network Rail and other parts of the industry has declined, due to the reduction in changes to and development of the legacy systems. Alongside this, many operators have established their own complementary arrangements in order to address the limited functionality of the legacy systems. The significance of the code requirement as a licence obligation may accordingly be regarded as having diminished.

The code has sometimes had the effect of locking the industry into expensive systems, for example, because of the wide blocking rights. Any changes in this area should therefore consider the need to facilitate changes which improve overall system costs and benefits.

Our relationship with users of systems to whom we supply services is one of contract, and we believe that what is currently dealt with through a specific licence obligation could satisfactorily be dealt with through the contracts instead. This would be against the background of the general licence obligation as regards satisfying reasonable requirements of railway services providers in respect of the facilitation of railway services performance.

We are keen to understand any responses that ORR may receive in respect of this aspect of its consultation. Given this, we propose to review with relevant industry parties the basis on which industry needs can continue to be met appropriately as part of these contractual relationships, in the absence of the systems code licence obligations.

We are not aware of any need for continuation of the systems code licence provisions and would support their removal.

### Other suggestions

We refer to the marked-up licence text in relation to the non-financial conditions which we are providing separately. As noted above, however, we may have other comments in the light of further review and discussion with ORR.

### Financial conditions

The questions above were set out in ORR's consultation of 5 June 2008. In its subsequent July consultation, ORR described its additional proposed licence changes relating to the periodic review and the financial framework, and provided further drafting. Our principal comments in relation to these subsequent changes are set out below.

Network Rail's response to ORR's draft determinations

However, the nature of the proposed financial changes, and the later consultation in respect of them, is such that we believe that the financial conditions and their drafting require more work on them than the remainder of the licence text. We are disappointed that it was not possible to discuss the drafting before publication as we believe that this could have resulted in a more useful consultation in some areas. Further discussions will be appropriate, and there is the potential for additional issues to arise out of these.

In general, we believe the financial conditions in the licence should broadly reflect those that apply to other utilities. In many cases, ORR's proposals (and indeed the current licence) go beyond what is appropriate in the context of proportionate regulation. We will be providing more detail when we have had the opportunity to discuss the overall thrust of the provisions with ORR.

### Permitted business

We note that changes in the definitions of scope of permitted business activities have been proposed, on the basis of seeking clarity. However, there are significant unintended consequences which flow from this, in particular for our financing documentation.

We seek discussions as regards how the position might be remedied. We will also wish to draw attention to problems attached to the proposed removal of what is currently contained in the definition of "Permitted Non-Network Business".

### Restriction on use of FIM

The ORR proposal (paragraphs 7/8 of July consultation letter) is for a restriction that extends beyond the FIM to all external guarantees. This goes well beyond what we have previously discussed and is not in line with regulatory practice.

We are currently discussing with ORR how the introduction of our proposed corporate debt programme might best be phased. This is also likely to impact on the detailed drafting.

### Restrictions on holding investments

The consultation seeks to clarify the requirements in relation to holding investments, enabling us to use a subsidiary company to raise finance. However, the proposals, while considerably extending the scope of investments to which they would apply, do not appear to be designed appropriately to achieve their purpose.

### Credit rating

We do not believe the proposed reference to a "standalone" credit rating is practical, necessary or in line with regulatory practice.

### Sufficiency of resources certification

We consider most strongly that the period for the statement of sufficiency of resources should not exceed 12 months, in line with regulatory practice for a prudently financed utility. As we move away from FIM-backed financing, the expense and difficulty of achieving committed debt funding beyond what a prudently financed company might require will become a significant cost for the company, which we do not believe would represent value for money.

### Sufficiency of resources and financial information

ORR has indicated (paragraph 12 of July consultation letter) that it intends to publish shortly a document that will show the information that will be required. To the extent that the requirement might be for us to publish forward-looking audited interest cover ratios, this is something which we strongly believe is unnecessary, out of line with regulatory practice and would have the perverse effect of making it difficult, and in some markets impossible, to raise finance from the capital markets.

### Cross-default

The proposed removal of a saving for cross-default provisions in existence at the time when restrictions were introduced into the licence (paragraph 14 of July consultation letter) may place Network Rail at risk of breach. It is not possible for such provisions to be fully identified because Network Rail inherited thousands of contracts from British Rail via Railtrack, largely through generic provisions of its transfer scheme. Some of these are over 100 years old, and may not generate scrutiny unless issues arise that require this.

Accordingly, we believe that either the licence must retain some such wording as under current licence, or consent should be issued which is generic, in similar terms.

### De minimis facility and ring-fencing

The July consultation letter (paragraphs 15/16) refers to the *de minimis* part of the licence condition not being as clear as it could be. We agree. However, we believe that the proposed changes could actually complicate matters and that the proposed limit is inadequate, falling short of that applicable to comparable utilities. The



proposed changes would introduce complex provisions with a double test against an indexed £100 million ceiling, one of them annual (turnover-based), the other cumulative (investment based). This is without any clarity yet as to how far property-related activities may be excluded. We wish to explore further the issues around the proposed changes, but believe that:

- the complexities of operation of the proposed *de minimis* regime will consume more management time than at present;
- the provisions appear designed for use where the licence holder is setting up sizeable discrete businesses as separate accounting units. This does not correspond to our pattern of usage of the facility to date, and so may actually impede that usage; and
- a *de minimis* facility might fairly be characterised as a regime which caters for activities that do not warrant regulatory consent. That may be a function of the relatively small scale of the activity, but it may also represent a situation where management and regulatory time and costs are saved through being able to treat an activity within the facility without applying for a full-blown regulatory consent.

The effect of the introduction of a complex regime such as this could well shift the balance of convenience and incentivise us to seek more formal consents instead of using the *de minimis* facility. That would appear to be regulatory strategy as regards the level of regulation. It would also appear to offer an unhelpful incentive to take activities outside the ring-fence altogether, where a surplus may be passed up the group via dividend, following the licence procedures.

### Intra-group dealings and payment condition

The proposed changes seek to introduce more restrictions upon intra-group dealings, and we have concerns as regards their effect that we wish to discuss with ORR.

### Treatment of NRIF

The licence text seeks to extend controls over Network Rail Infrastructure Finance plc (NRIF) that were not envisaged when the funding arrangements involving it were approved by ORR and the licence modified in consequence. There is no evidence in the consultation of any issues that would give rise to a need for such extension. Previous regulatory requirements were embodied in the documentation for those funding

arrangements, which is complex. We believe that a clearer justification would need to be shown to warrant re-opening that documentation.

In any event, given that NRIF is now established with its own independent board of directors, it should not be assumed that we are able to undertake to procure from it the types of undertaking that go beyond those already given. This is largely due to the legal duties of the directors of NRIF to act in the best interests of that company.

### Regulatory accounts

We note from paragraph 24 of the July consultation letter that ORR expects in future to issue regulatory accounting guidelines (RAGs) before the start of the year to which they relate. This is clearly welcome given the existing working arrangements to which ORR's consultation letter refers (issuing RAGs before the end of the financial year to which they relate). That current practice, we believe, does not adequately reflect ORR's duty under section 4(1)(g) of the Railways Act to enable us to plan the future of our business with a reasonable degree of assurance.

The proposal to move to the start of the relevant financial year is, we believe, a step in the right direction, but falls short of what would enable us to plan sufficiently in advance. The importance to us is such that we believe that, save in exceptional circumstances (which could be subject to Network Rail's agreement), the appropriate timing is before 31 December in the year before the start of the relevant financial year. This should ideally be embedded in the licence.

### Ring-fencing and rolling stock interests

We suggest that the restriction on interests in rolling stock and train operators is subsumed into the ring-fencing condition, 4 (instead of being a free-standing condition 5). This is on the basis that it is conceptually a subset of ring-fencing, and that consents given under current licence condition 13 have in practice been accompanied by the need to cater for current licence condition 12 as well.

### Financial information

ORR's July consultation letter (paragraph 26) invites us to provide views on whether the current licence condition requirement for publication of information required by the listing rules of the Financial Services Authority is appropriate.

Our view is that the requirement is not appropriate. Most of the information required to be published under the Listing Rules by listed companies is irrelevant to Network Rail.

We recognise that the driver behind the condition is likely to be one as regards transparency. We agree that this is an important requirement, but, we believe that the proposed condition needs to be clearer and more focused. The purpose would appear better served by:

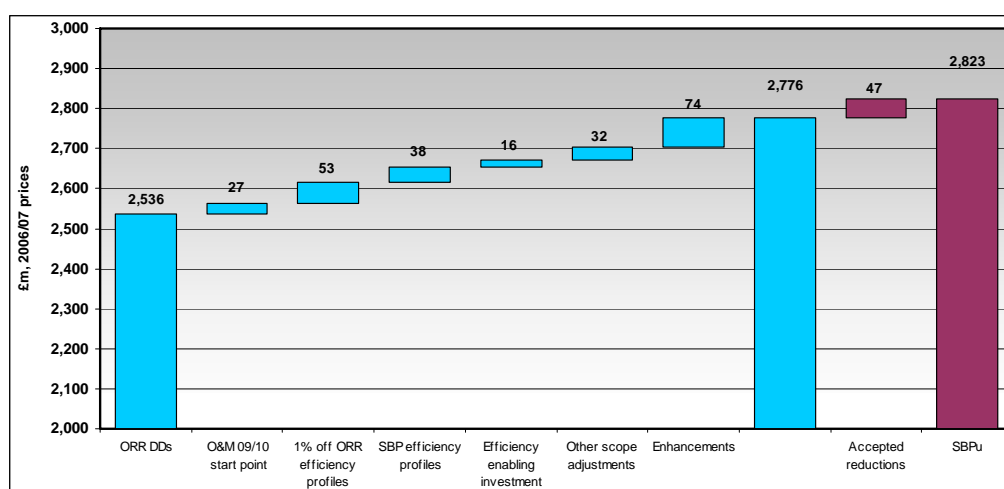
- either specifying the relevant Listing Rules which secure what ORR seeks, or alternatively, for greater clarity, specifying which of the disclosure and transparency rules (DTR) would do so;
- providing that compliance is to be to the extent reasonably practicable having regard to the licence holder's corporate structure (given that the rules are written with listed companies in mind and so require some interpretation); and
- considering how far it is appropriate to mandate the time and cost of publishing information where this in effect duplicates information already provided by regulatory monitoring and reporting arrangements (e.g. duplication as between interim management statements and ORR's monitor).

## Appendix

As noted in the Executive Summary, the diagrams below illustrate the key elements of the difference in expenditure for Scotland and for England and Wales over CP4 between ORR's draft determinations and our update of the SBP.

The accepted reductions in Scotland comprise reduced civils renewals (£38 million) the reduction in electrification renewals due to the inadvertent double counting of provision for the grid supply point at Elvanfoot (£9 million). In England and Wales, the accepted reduction comprise reduced civils renewals (£234 million) and reduced enhancements expenditure (£521 million).

**Figure A.1 ORR and Network Rail CP4 expenditure projections (Scotland)**



**Figure A.2 ORR and Network Rail CP4 expenditure projections (England & Wales)**

