



OFFICE *of the*
RAIL REGULATOR

**THE PERIODIC REVIEW OF RAILTRACK'S
ACCESS CHARGES: TIMETABLE,
PROCESS AND ISSUES**

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Contents

Regulator's foreword	1
1. Introduction.....	3
Background	3
Purpose.....	4
Timetable and process.....	5
2. Outputs and efficiency	7
Introduction.....	7
Railtrack's performance to 2001	7
Current work on outputs and efficiency from 2001	8
Provisional conclusions and the 2000 NMS	9
The Regulator's review of the 2000 NMS and final conclusions	10
Summary timetable	11
3. Financial framework.....	13
Introduction.....	13
Cost of capital	13
The initial regulatory asset base.....	15
Rolling forward the RAB to 2001.....	16
Alternative models for remunerating enhancement	16
Financial modelling and financial ratios	17
4. Incentives to use and develop the network	19
Introduction.....	19
The structure of charges	19
Contractual incentive regimes.....	23
Property Allowance Scheme (PAS).....	25
Summary timetable	25

Regulator's foreword

I am today publishing my proposals relating to the timetable and process for the periodic review of Railtrack's access charges.

The periodic review is the most important of the many instruments which will be used to shape and determine Railtrack's commercial and financial position in the first years of the next decade. Indeed, the decisions made in July 2000 will have consequences which last longer than the next price control period because it is my objective - with the Strategic Rail Authority and Government - to create conditions in which Railtrack and other railway industry participants will be encouraged to invest and invest strongly in the railway. Railtrack's response to those new economic conditions will shape the railway network for many years to come. It is therefore vitally important that the decisions are made on the firmest foundations.

In my period in office - and before that to the Transport Sub-Committee of the House of Commons Select Committee on the Environment, Transport and the Regions - I have repeated my view that there is nothing objectionable about healthy profits in a railway company. But healthy profits have to be earned. So far Railtrack's performance in relation to the management and stewardship of the national railway infrastructure has not been satisfactory. Railtrack can and must raise its game, to justify the considerable amounts of money which it receives from farepaying passengers and freight shippers and in taxpayers' subsidies. The public should get what it is paying for.

In 1994 Railtrack was established on an assumption that it would be a dynamic, entrepreneurial and risk-taking organisation. It was given the leadership of the railway industry with the expectation that it would discharge that role, under supervision of the Regulator, proactively and well. The years since have been years of disappointment, and Railtrack has all but squandered that opportunity. Railtrack's knowledge of its asset base and its care and control of nationally important assets has been - and is - poor. Its records on network performance targets for passenger trains, broken rails, the provision of adequate capacity to meet rising demand, dealings with its dependent customers and progress on major projects have attracted severe and well-deserved criticism.

These are things which the company can and should put right. Railtrack's industry leadership role is still available to it, but it must pick up the challenge quickly if it is not to be relegated to the role of a mere contractor for Government, with all major decisions taken by regulators.

The periodic review is well underway. It needs the active and high quality participation of all concerned, particularly Railtrack. The future of the railway industry - not just that of one company - is at stake.

The review will be tough. It will also be demonstrably fair. I want Railtrack and all the railway companies to be successful - as successful as possible. The best way in which they can achieve this objective is to harmonise their commercial aspirations so as to be consistent with and to promote the public interest. Incentive regulation is the best way forward, and successful companies meet challenges with energy and ability. Railtrack should do the same. It must.

TOM WINSOR

Rail Regulator

26 August 1999

1. Introduction

Background

- 1.1 As the monopoly supplier of the national railway network in Great Britain, Railtrack is subject to a high degree of regulation to ensure that it does not exploit this situation and that it discharges properly its obligations as steward of the national rail network. In particular, the Regulator approves the access charges which Railtrack levies on its customers. Following his initial review of charges in 1994, the then Regulator approved access charges for franchised passenger train operators in 1995 for the period to 31 March 2001. The purpose of the current periodic review is to determine the charges which should now be incorporated into these agreements from April 2001 onwards. The subsequent review is expected to have effect from April 2006.
- 1.2 The periodic review therefore provides the opportunity for a full and comprehensive reappraisal of the commercial and regulatory framework within which Railtrack operates. The challenge is to create an environment which protects the interests of users and funders whilst creating appropriate incentives for Railtrack to deliver increased investment and improved performance.
- 1.3 The previous Regulators published three consultation papers on the periodic review:
- (a) December 1997 - The Periodic Review of Railtrack's Access Charges: A Proposed Framework and Key Issues;
 - (b) July 1998 - The Periodic Review of Railtrack's Access Charges: The Framework and Timetable and Further Consultation on Financial Issues; and
 - (c) December 1998 - The Periodic Review of Railtrack's Access Charges: The Regulator's Conclusions on the Financial Framework.
- 1.4 The objective of the periodic review as set out in the first paper was to "identify the minimum sums necessary to finance the functions of an efficient operator, following the standard utility model". The last paper provided a progress report on work to date, identified further work which needed to be carried out and set out the then Regulator's conclusions on the main elements of the financial framework. Copies of this consultation paper were sent to approximately 900 individuals and organisations. The document was placed on the ORR's website on the day of publication. A seminar was held involving analysts, investors and credit rating agencies. Written responses to the

consultation have now been placed in ORR's library, where members of the public can read them.

- 1.5 Following publication of the third consultation paper, Tom Winsor was appointed as the new Regulator with effect from 5 July 1999. The previous Regulator wrote to the industry on 30 April 1999 indicating that it would not be appropriate for the Office to publish any major consultation documents on the periodic review before 5 July 1999. In particular, further consultation on the structure of charges, which would have been issued in Spring 1999, was delayed so that these issues could be addressed by the new Regulator.
- 1.6 On 23 June 1999 Mr Winsor told the Environment, Transport and Regional Affairs Committee of the House of Commons that "I do not regard anything done so far as binding me in my future decisions. That includes the announcement on 10 December 1998 by the Office of the Rail Regulator on Railtrack's rate of return and the size of its regulatory asset base. There are important judgements to be made on the level and structure and incentives of Railtrack's access charges. Those decisions will be made finally in July 2000".

Purpose

- 1.7 The purpose of this document is three-fold:
- (a) it provides a progress report on work which the Regulator and others have done since the December 1998 consultation document;
 - (b) it describes the proposed process and timetable for the remainder of the review; and
 - (c) it invites views from interested parties on Railtrack's revised proposals on the financial framework for the periodic review as set out in its recent publication on corporate finance issues.
- 1.8 Since Railtrack's revised proposals on the financial framework diverge substantially from the company's earlier position, the Regulator considers that it is appropriate for him to invite comments from interested parties at this stage. This should not, however, be taken as an indication that he is in agreement with any of Railtrack's proposals. The Regulator also welcomes comments from interested parties on other aspects of his approach to the periodic review. In the first instance these comments should be addressed to:

Paul Plummer
Office of the Rail Regulator
1 Waterhouse Square
138-142 Holborn
London EC1N 2TQ

Respondents should indicate clearly whether they wish their responses to remain confidential to ORR. Otherwise they may be published, placed in the ORR library or quoted from by the Regulator. Where a response is made in confidence, it should be accompanied by a statement which can be published, placed in the ORR library or quoted from by the Regulator, summarising the submission excluding the confidential information.

Timetable and process

1.9 Most of the work in the periodic review to date has focused on three main areas:

- (a) the assessment of past performance, future outputs and efficiency;
- (b) the financial framework; and
- (c) the incentives to use and develop the network (including the structure of charges, the contractual incentive regime and the property allowance scheme).

Progress to date and next steps in each of these areas are discussed in Chapters 2 to 4 respectively. An overview of the proposed timetable for the remainder of the review is shown below:

September 1999	Consultation on structure of charges
September 1999	Consultation on contractual incentive regimes
September 1999	Industry consultation on charging for electricity
October 1999	Industry consultation on usage cost research
October 1999	Industry consultation on congestion cost research
November 1999	SSRA statement on baseline outputs
December 1999	Provisional conclusion on the level of revenues and outputs
March 2000	Publication of Railtrack's NMS

Spring 2000	Provisional conclusions on incentives
Summer 2000	Strategies formulated by SSRA
July 2000	The Regulator's final conclusions

- 1.10 This timetable shows that the Regulator intends to publish provisional conclusions on the overall level of charges in December 1999. This will include the Regulator's provisional conclusions on the financial framework, on the outputs which Railtrack is expected to deliver and on the aggregate revenues which it requires to finance the delivery of these outputs. The implications for Railtrack's 2000 Network Management Statement (NMS) will also be identified. Although major enhancements will not be covered by this analysis, the document will include conclusions on the framework for dealing with these enhancements.
- 1.11 The December 1999 document will not, however, address the issues relating to the incentives to use and develop the network which derive from the structure of charges and the contractual incentive regime. Work on these issues will proceed in parallel with work on the level of outputs and revenues, and the Regulator expects to publish provisional conclusions on these incentive issues in Spring 2000. This should allow sufficient time for final proposals on all aspects of the review to be published in July 2000 for implementation in April 2001.
- 1.12 The conclusions from the periodic review will be reflected in the access agreements between Railtrack and operators rather than Railtrack's network licence. This means that Railtrack has no right of appeal to the Competition Commission in relation to changes in the outcome of the periodic review. Although there are material differences between the subsidised railway industry and the other regulated privatised industries and potentially significant difficulties in implementing a right of appeal, the Regulator is considering whether such an appeal would be appropriate for the future.
- 1.13 In addition to the level and structure of charges and incentives, there are a number of related changes which the Regulator may wish to introduce in conjunction with the periodic review settlement. These might include changes which are designed to clarify the level of outputs which Railtrack is expected to deliver, together with arrangements for monitoring, incentivising and, where necessary, enforcing delivery of these outputs. These changes might involve some modifications to Railtrack's network licence and, if Railtrack does not agree to these modifications, this could result in a reference to the Competition Commission in relation to these matters.

2. Outputs and efficiency

Introduction

- 2.1 This Chapter outlines the progress to date on the periodic review and the next steps relating to the Regulator's assessment of past performance, future outputs and efficiency and the way in which this will feed into his overall conclusions. This is a crucial part of the review process and the Regulator is concerned that insufficient progress has been made towards a proper understanding of the relationships between activities, efficiency and outputs. He has therefore told Railtrack that this work should form the main focus of its attention on the periodic review over the next few months.
- 2.2 The following areas are discussed in more detail below:
- (a) Railtrack's performance to 2001;
 - (b) current work on outputs and efficiency from 2001;
 - (c) provisional conclusions and the NMS; and
 - (d) the Regulator's review of the 2000 NMS and final conclusions.

Railtrack's performance to 2001

- 2.3 In August 1998, the Regulator commissioned Booz-Allen & Hamilton to undertake a wide-ranging review of Railtrack's performance in the current control period, using actual performance data for the period to 1998 and Railtrack's plans and supporting data to provide projected performance information to March 2001. The review addressed key questions about the quality and efficiency of Railtrack's performance in the control period by quantifying Railtrack's activities by the physical resources input and the outputs delivered, particularly in terms of network performance and asset quality. It then assessed this performance against expectations at the time of the previous review of access charges and against other reasonable comparators.
- 2.4 The Booz-Allen & Hamilton report was published in April 1999 as part of the Regulator's wider industry consultation which sought views both on this and the 1999 NMS. A number of the industry responses substantially endorsed the report's conclusion that Railtrack has under-performed in its ability to deliver continuing improvements in network performance and managing its network assets. In particular, the consultants concluded that Railtrack focused on short-term issues at the likely

expense of long-term asset health and had an inadequate understanding of asset conditions. They also found evidence of significant variations in performance across the Railtrack zones.

- 2.5 The Regulator has received detailed comments on the Booz-Allen & Hamilton report from Railtrack and other interested parties. The Regulator is considering whether as a result of the report and these responses, there is any immediate action that he should take under Condition 7 of Railtrack's network licence, and he intends to publish his conclusions on this shortly.
- 2.6 One option for dealing with under-delivery is to take action as part of the periodic review through an adjustment to the regulatory asset base (RAB) which is discussed in more detail in Chapter 3. The process for defining a methodology by which any under-delivery can be quantified and converted into a RAB adjustment is currently under way, and it is the Regulator's intention to publish a provisional conclusion on the value of any write down of the RAB with his provisional conclusions on the level of outputs and revenues in December 1999. In the case of train performance, the Regulator has already announced his intention to take action to enforce Railtrack's existing obligations and the financial consequences of such action will be taken into consideration when assessing any adjustment to the RAB. However, the Regulator will also need to consider whether any adjustment is required in relation to the underlying condition of the assets.

Current work on outputs and efficiency from 2001

- 2.7 An essential part of the review process is to define what Railtrack is being paid for in the base line level of access charges. This is so that the Regulator can monitor, incentivise and, where necessary, enforce the delivery of the settlement and distinguish between what is covered by the base charges and what should be treated as enhancement. For the current control period (1995 - 2001), Railtrack was required to renew the network in "modern equivalent form" and this has led to extensive debate about what this means in practice. For the next control period, it will be important for the Regulator to define much more precisely what is expected of Railtrack, preferably in terms of the outputs which Railtrack is expected to deliver.
- 2.8 A further part of the review relates to the Regulator's assessment of the efficient cost of achieving the outputs which are meant to be covered by the base level of access charges. In March 1999 Railtrack published its Network Management Statement setting out its plans for maintenance and renewal of the current network (the

"sustained network"). This included plans to spend £16 billion on the current network together with further plans for enhancing the network.

2.9 In April 1999 the Regulator commissioned Booz-Allen & Hamilton to undertake an assessment of Railtrack's expenditure needs to sustain the network in the next price control period. The primary source data for this assessment is the 1999 NMS, whereas the final proposals will be based on the 2000 NMS. However, the current assessment also takes account of separate cost submissions made by Railtrack in May and June 1999 and ongoing discussion between the Regulator, Railtrack and Booz-Allen & Hamilton. The scope of work now under way includes examination of:

- (a) the expected baseline position in terms of outputs in April 2001;
- (b) the sufficiency of proposed levels of maintenance and renewal activity, and how Railtrack has balanced costs and outputs and determined any "trade-offs" between them;
- (c) the scope for efficiency savings and whether the assumptions being made by Railtrack represent best practice by an efficient operator; and
- (d) comparison with improvements in productivity which have been achieved elsewhere, including analysis of efficiency gains made by other regulated utilities and application of international benchmarking information, with particular emphasis on maintenance and renewal practices.

2.10 A major emerging issue from the progress of this study is the apparent lack of transparency of the linkage between the inputs (planned activities) and resulting outputs in terms of network performance, capability and condition. A clear definition of these is essential if there is to be an effective incentive-based regime in the next control period.

2.11 The programme for the current study requires Booz-Allen & Hamilton to provide a draft report to the Regulator at the end of September 1999. The findings will then be reflected in the Regulator's provisional conclusions in December 1999.

Provisional conclusions and the 2000 NMS

2.12 Since its inception earlier this year, the Shadow Strategic Rail Authority (SSRA) has been carrying out its assessment of the state of the railways. It intends to provide the Regulator and Railtrack with a statement of baseline outputs (i.e. excluding major enhancements) in November 1999. The Regulator has been advised that the SSRA

will look for continuous improvement in the services and facilities which Railtrack provides.

- 2.13 The requirements of the SSRA are an essential input to the Regulator's provisional conclusions in December 1999 (combined with the financial framework discussed in the following Chapter and the Regulator's assessment of the potential for efficiency improvements). These conclusions will include details of the total revenues which he considers that Railtrack requires to finance its activities. At the same time they will set out the outputs which Railtrack, as steward of the rail network, is expected to deliver in return.
- 2.14 Following his provisional conclusions on the periodic review, the Regulator expects Railtrack to reflect his conclusions on what it will be required to deliver for the next control period in the 2000 NMS. He expects Railtrack to set out high-level output commitments for the network as a whole, and how these will be cascaded down to zones and individual route strategies. In some cases, key activities may not be capable of being reflected unambiguously in outputs, and there may be a need for commitment to specific activities or schemes.
- 2.15 The Regulator also expects that the 2000 NMS will set out Railtrack's plans for managing and monitoring the health of its assets, and its forecasts of what it expects to achieve against a range of asset condition measures. The Regulator will want to ensure that improvements in outputs are not achieved at the expense of the longer-term health of the assets.
- 2.16 Some of the high-level output commitments and asset condition measures may not be capable of being considered at a disaggregated level. The Regulator will expect Railtrack to review the criteria which it is required to produce under Condition 7 of its network licence in the light of the provisional conclusions. These criteria should set out the method of determining the priority and timing of different types of work, the parts of the network on which it will be carried out, and the basis for reviewing such priorities in a manner which is consistent with delivery of the high level outputs or asset condition measures.

The Regulator's review of the 2000 NMS and final conclusions

- 2.17 Following the publication of Railtrack's NMS in March 2000, the Regulator will want to carry out a detailed review of this document. In particular, he will want to consider whether the outputs which are contained in the NMS are consistent with the:

- (a) high-level outputs which are contained in his December 1999 conclusions;
 - (b) the strategies being formulated by the SSRA with respect to the intended purposes of the SRA; and
 - (c) reasonable requirements of train operators and other funders.
- 2.18 The Regulator will want to consider all the consultation responses which he receives to his December 1999 provisional conclusions and any additional responses which consultees may make following the publication of the 2000 NMS. The Regulator expects that he will employ consultants to help him carry out this review of the NMS.
- 2.19 The Regulator's final conclusions in July 2000 will set out the total revenue which Railtrack will be allowed to charge franchised passenger train operators for a specified level of output. In his final conclusions, he will confirm whether or not he is content that the outputs as set out in the NMS adequately reflect his provisional conclusions. To the extent that they do not, he will set out any adjustments to the output targets and these will form the basis of Railtrack's targets for the next control period. He will expect Railtrack to incorporate any revisions to the outputs specified in his conclusions in its 2001 NMS.
- 2.20 In addition to the level and structure of charges and incentives, there are a number of related changes which the Regulator may wish to introduce in conjunction with the periodic review settlement. These might include changes which are designed to clarify the level of outputs which Railtrack is expected to deliver, together with arrangements for monitoring, incentivising and, where necessary, enforcing delivery of these outputs. For example, the Regulator intends to review the information which Railtrack is required to provide to him on a regular basis (e.g. relating to monitoring and audit of performance and asset condition information, regulatory accounts, logging up of enhancements for potential inclusion in the RAB, and disaggregated cost and performance data for different zones, routes or market segments within Railtrack).

Summary timetable

- 2.21 In summary, the key milestones relating to the Regulator's assessment of past performance, future outputs and efficiency are as follows:
- | | |
|---------------|---|
| November 1999 | SSRA statement on baseline outputs |
| December 1999 | Provisional conclusion on the level of revenues and outputs |
| March 2000 | Publication of Railtrack's NMS |
| Summer 2000 | Strategies formulated by SSRA |
| July 2000 | The Regulator's final conclusions |

3. Financial framework

Introduction

- 3.1 Chapter 1 restated the Regulator's view that his predecessors' conclusions on the financial framework are not binding on him. He intends to publish his own provisional conclusions on these issues with his provisional conclusions on the level of revenues and outputs in December 1999. This may result in allowed revenues which are lower or higher than those implied by the approach proposed by the previous Regulator.
- 3.2 Following the December 1998 consultation paper and the appointment of the new Regulator, Railtrack has published revised views on the determination of both its cost of capital and its regulatory asset base (RAB). Since these views diverge substantially from the company's previous position, the Regulator considers it appropriate for him to invite comments from interested parties at this stage. This should not, however, be taken as an indication that the Regulator is in agreement with any of Railtrack's proposals.
- 3.3 The remainder of this Chapter therefore summarises Railtrack's revised views on the financial framework for the periodic review and highlights the key issues which still need to be addressed by the Regulator in the following areas:
- (a) cost of capital
 - (b) initial RAB;
 - (c) rolling forward the RAB to 2001;
 - (d) rolling forward the RAB from 2001;
 - (e) financial modelling; and
 - (f) financial ratios.

Cost of capital

- 3.4 Railtrack's latest submission on corporate finance issues argues that its real post-tax weighted average cost of capital (WACC) is 7.1% excluding the tax shield on debt. This is based on analysis by Dr Tim Jenkinson, Railtrack's consultant, which implies a

range of 6.2% to 7.4%, compared to a range of 6.1% to 8.3% in Railtrack's previous submission on these issues. By contrast, the previous Regulator (in line with other regulators) proposed a range of 5% to 6% including the tax shield on debt, which is equivalent to around 5.5% to 6.5% on the basis used by Railtrack.

- 3.5 The key issues which the Regulator needs to consider before reaching a final conclusion on the appropriate cost of capital are discussed below.
- 3.6 First, the Regulator will need to decide whether the tax shield on debt should be taken into account through explicit forecasts incorporated in the Regulator's projections of Railtrack's cash flows rather than being factored into the cost of capital calculation. If the only impact of increased gearing on the WACC operates through the tax shield on debt, both approaches should give the same result. The first approach does have some practical advantages since changes in gearing can be modelled explicitly but, if this approach is to be adopted, it will be important to ensure that the assumed cost of capital and the underlying assumptions can be readily compared with the assumptions made by other regulators.
- 3.7 Second, the Regulator will need to form a view on the appropriate figure to assume for Railtrack's cost of capital given the current structure of charges. Railtrack has highlighted the need for consistency between regulators on key elements of the cost of capital, such as the equity premium and the risk-free rate. The Regulator agrees with Railtrack that consistency of application will help to reduce the potential impact of perceived regulatory risk on the cost of capital. The Regulator therefore intends to base his conclusions largely on the capital asset pricing model (CAPM) which has been widely used by other regulators and to take account of the assumptions made by OFWAT and OFGEM in their current reviews of water and sewerage companies and electricity distribution companies (as well as previous precedents from the Monopolies and Mergers Commission). He will also wish to consider whether there are strong reasons to believe that the risks faced by Railtrack under the current structure are any different to those of other regulated utilities in the UK. Should any of these companies reject their regulator's proposals on the grounds that the assumed cost of capital is inadequate, resulting in a reference to the Competition Commission, the Regulator would also want to have regard to the Commission's conclusions on the appropriate approach to the cost of capital. (These conclusions are likely to be published before the Regulator is required to reach a final conclusion on the level of charges.)

- 3.8 Third, the Regulator may need to consider the potential impact on the cost of capital of any change in the structure of charges and/or incentives. In particular, Railtrack has proposed the introduction of some form of volume incentive, which might be expected to increase the risks faced by Railtrack and, hence, the cost of capital (see the following Chapter). If such changes are adopted, the Regulator would need to consider both theoretical evidence on the potential impact of such differences and empirical evidence from comparable situations.

The initial regulatory asset base

- 3.9 A key element of the financial framework for regulated companies is the value of its assets used in establishing future prices. This is usually referred to as the regulatory asset base or RAB. Railtrack originally argued that the initial value of the RAB at flotation should be based on its share price at the time of the 1997 General Election, when it argued that the political uncertainties were removed. This implied an uplift of 61% on the first day trading value (69% on the offer price) resulting in an initial RAB of £3.7 billion.
- 3.10 By contrast, the previous Regulator concluded that the RAB should be based on the first day's trading value without any further uplift, implying a 5% uplift on the offer price and an initial RAB of £2.5 billion. In his view, this conclusion was consistent with regulatory precedent, taking account of the wide range of uplifts applied by other regulators and the MMC as well as his objective of identifying "the minimum sums necessary to finance the functions of an efficient operator, following the standard utility model".
- 3.11 Railtrack's recent submission on corporate finance issues sets out its revised proposals, including a much lower initial RAB than it proposed in its initial submission. Railtrack now argues that this should be based on the average share price from the first day's trading to the date when the privatisation of British Rail was (virtually) complete, a period of 226 trading days. The average share price over this period implied an uplift of 23% over the price at the close of the first day's trading and an initial RAB of £3.0 billion.
- 3.12 The new Regulator has asked Railtrack for further information to assess the appropriate initial level of the RAB. He has not yet made a decision about whether there should be any uplift on the first day trading value and will be considering the evidence submitted by Railtrack and other interested parties over the next few months.

Rolling forward the RAB to 2001

- 3.13 As well as the initial level of the RAB, the Regulator will need to consider how the RAB should be rolled forward to 2001. This will include an assessment of the following issues:
- (a) how should the efficient level of expenditure on enhancements be identified for inclusion in the RAB?
 - (b) how should any under-delivery by Railtrack be taken into consideration? (see Chapter 2 for further discussion);
 - (c) how should investments to achieve improvements in efficiency and/or performance be dealt with?
 - (d) should additional expenditure on renewal be included in the RAB? (Railtrack previously indicated that this expenditure was approximately £1 billion but its latest submission revised this estimate to £1.5 billion); and
 - (e) should the profits which Railtrack made under the contractual performance incentive regime be "clawed back" on the grounds that these gains were not the result of improvements in efficiency?
- 3.14 These issues were all raised in the July 1998 consultation document and the previous Regulator set out the principles that he intended to adopt in the December 1998 document. However, detailed proposals for implementing all of these principles have yet to be developed. In addition, the third periodic review document indicated that the then Regulator did not expect to make a decision until the end of 1999 on the speed with which the benefits of additional efficiency over and above that built into the initial price limits should be transferred from Railtrack.

Alternative models for remunerating enhancement

- 3.15 The issues which arise in relation to the principles for rolling forward the RAB from 2001 are similar to the issues referred to above (e.g. the identification of enhancement expenditure). In addition, the December 1998 document challenged Railtrack to come forward with further proposals on how it could take more demand risk in a way which delivers better results and better value for money for users and funders. The Regulator is continuing to discuss versions of both the "equity partner model" (in which Railtrack takes demand risk) and the "contractor model" (in which it takes no demand risk) with the SSRA and Railtrack. The Regulator's provisional conclusion on the

framework for implementing these alternative models will be included in the December 1999 document.

Financial modelling and financial ratios

- 3.16 The Regulator's conclusions on the appropriate level of charges will reflect his decisions on the principles discussed in the preceding paragraph of this Chapter and his assumptions on outputs and efficiency which are discussed in Chapter 2. These two strands will be brought together in a detailed financial model of the business.
- 3.17 The Regulator has commissioned Ernst & Young to develop this financial model and he intends to ask Railtrack to comment on the structure of the model. This should help to highlight areas where further discussion is required whilst minimising the need for fruitless debate on common assumptions and methodology.
- 3.18 The financial model will be used to assess the required level of revenues based on projected expenditure and depreciation plus a return on the RAB. The model will also be used to check that the Regulator's proposals do not make it unduly difficult for Railtrack to finance its activities in respect of which the Regulator has functions. This will involve an assessment of the likely financial ratios and the implication for Railtrack's credit rating. In assessing these financial ratios, it will be important to be able to focus on Railtrack PLC and to exclude significant changes in Railtrack's balance sheet which are due to other activities of Railtrack Group, such as involvement in the Channel Tunnel Rail Link or possible involvement in the London Underground, on the assumption that these ventures would be entered into as commercial propositions in their own right.
- 3.19 Railtrack's recent submission argues that "the threat of a downgrade below A- would make it unduly difficult to raise the amount of debt required at reasonable funding levels". Railtrack claims that, in order to maintain a strong A credit rating, when setting access charges the Regulator must take into account the company's need to maintain adequate financial ratios commensurate with this rating.
- 3.20 The Regulator will be consulting investors, analysts and credit rating agencies on the following issues:
- (a) the impact of alternative credit ratings on the cost and availability of debt finance to meet Railtrack's requirements;
 - (b) the potential for Railtrack to raise additional equity if required;

- (c) the relevant financial ratios for Railtrack (gearing, interest cover etc.); and
- (d) the level of those ratios required to maintain an appropriate credit rating.

4. Incentives to use and develop the network

Introduction

4.1 In addition to determining the overall level of charges for access to track and stations, the periodic review provides the opportunity to review the structure of incentives on Railtrack and train operators in the access agreements. In particular, the December 1998 periodic review document described the work which was being carried out in the following areas:

- (a) the structure of Railtrack's charges including the form of control on those charges;
- (b) the contractual performance and possessions regimes between train operators and Railtrack; and
- (c) the Property Allowance Scheme.

This Chapter reports on progress and next steps in each of these areas.

The structure of charges

4.2 The Regulator's November 1994 conclusions on the structure of charges were driven by the imperative of putting a system in place that was simple and readily understood by the industry. Various deficiencies have been identified in the current structure and some of these were recognised in 1994, but it was not considered practical to address them at that time. The current periodic review therefore includes a detailed review of the structure of charges.

4.3 The Regulator plans to publish proposals on the policy issues relating to the structure of charges in a consultation document during the course of September 1999. Consultation on a number of more technical issues is also planned for Autumn 1999 (research on usage costs and congestion costs and consultation on charging for electricity for traction). Following receipt of responses to these consultations, the Regulator intends to publish provisional conclusions on these issues in Spring 2000, in time for him to publish his conclusions on the periodic review as a whole in July 2000.

4.4 In parallel with the publication of his final conclusions, the Regulator will be writing to Railtrack and franchised passenger train operators setting out the process for

producing individual charges for inclusion in track access agreements and adjustments to the station access long-term charges. The calculation of the charges and the development of the necessary billing systems to implement changes to the structure of charges will involve significant work being undertaken by Railtrack. The Regulator is discussing these issues with Railtrack to ensure that robust systems are developed to derive charges for individual operators so that changes to the structure of charges can be implemented at the same time as changes to the level of charges. The Regulator's final conclusions might also identify areas of research to develop further refinements in the structure of charges which might be introduced either at the next review or at the time of refranchising (e.g. further research on cost causation).

Developing the policy on the structure of charges

4.5 The research into congestion and usage costs described below will provide a better understanding of Railtrack's cost structure and will feed into the development of actual charges. The Regulator is considering the appropriate structure of variable charges, in particular whether charges should be cost-reflective. Issues that may arise in this area therefore include:

- (a) whether cost-reflective charges are appropriate and what costs should be recovered by a variable charge;
- (b) the incentives on Railtrack to increase the use and development of the network;
- (c) the rules which apply to charges for enhancements;
- (d) the process by which operators can alter their rights (including both the acquisition of new rights and the surrendering of existing rights); and
- (e) the allocation of the residual revenue requirement (and hence the fixed charge) between train operators i.e. those costs which are not recovered through other single till items such as property income or the estimated total value of the variable charges.

4.6 In addition, Part 9 of Schedule 7 of the access agreements put in place a process enabling a train operator who wanted to change its rights to ask Railtrack for a "what if" analysis of the effect on its charges, and an arbitration procedure, binding on Railtrack, should the parties fail to agree. This provides a mechanism by which

operators and Railtrack can vary access rights and charges. The Regulator will wish to consult on how this mechanism might be improved.

- 4.7 The periodic review concerns access charges for franchised passenger train operators. However, EWS' track access agreement expires in 2001 and the implications for freight of the work on cost causation will need to be considered as part of the review.

Usage costs research

- 4.8 The main variable charging element under the current structure of charges is the usage charge. This was intended to reflect the short-run effects on the maintenance and renewal costs of running trains of different types over different distances. However, the Regulator's 1994 conclusions on the structure of charges noted some deficiencies of the current system of estimating variable usage costs (which was done through a cost causation model known as mini-MARPAS). The periodic review provides an opportunity to review these issues.
- 4.9 Railtrack was asked to investigate the issue of cost causality and as a result developed (in conjunction with their consultants AEA Technology) a new cost causation model. Initial results from this model, piloted on Railtrack's London North East zone, were shown to a group drawn from the passenger and freight train operating companies, SSRA and the PTEs earlier this year. The Regulator has now appointed Booz-Allen & Hamilton as consultants to review the work done by Railtrack and AEA, and either validate the individual elements or propose suitable alternatives. Railtrack has also been developing and refining the model in conjunction with AEA Technology and has recently provided the Regulator and Booz-Allen & Hamilton with a revised version of the model.
- 4.10 In conjunction with the work being undertaken by his consultants, the Regulator intends to consult the industry and interested parties concerning the draft results of the new cost causation models. This will also provide further information for both passenger and freight operators as to the direction of this work on cost causation. Although the exact timing of this paper will depend on the review by Booz-Allen & Hamilton, the Regulator expects to publish this paper in October 1999. The conversion of these cost estimates into the usage charges which operators will be required to pay will be discussed in the September 1999 policy consultation.
- 4.11 The Regulator intends to hold a seminar for industry representatives to receive views on the outcome of the review by Booz-Allen & Hamilton and as a result of the technical consultation. This seminar will be scheduled shortly. A decision will then be

made concerning the final form of the cost-causation models, following which Railtrack will be required to roll out the model across other zones in order to provide usage costs for all services.

Congestion costs research

- 4.12 Railtrack has proposed that a further cost-reflective variable charge be introduced in the next control period. This would be designed to recover the expected performance regime costs of additional services. If the level of traffic and rights at the beginning of the control period remained unchanged, this charge might be expected to be neutral on Railtrack. However, varying the charge with respect to time of day, geography or flex might lead to operators and Railtrack having greater incentives to timetable trains more efficiently.
- 4.13 Railtrack, in conjunction with AEA Technology, has developed a model to predict the performance regime payments arising from individual services. Railtrack presented its initial findings from this model to a group of users in March 1999. It has since been developing the model and further information is being delivered to the Regulator.
- 4.14 The appropriate methodology for measuring these costs will depend in part on the method by which they are recovered. In addition, as any variable charge based on performance regime costs would be innovative, the Regulator believes that there is a significant benefit in consulting on the method by which the relevant costs are calculated once proposals have been made concerning the form of any charge that will be recovering part or all of those costs. The Regulator therefore intends to consult on the methodology for estimating these costs in conjunction with the main consultation on his proposals for the structure of charges.
- 4.15 In the meantime, the Regulator will continue to discuss with Railtrack the development of the model to estimate performance regime costs of individual services, and review the initial results being produced by Railtrack. The Regulator will expect Railtrack to check its model against a range of service enhancements which have occurred in recent years to demonstrate that it is a reasonable predictor of performance regime payments.

Electricity for traction

- 4.16 Railtrack procures electricity on behalf of the operators and recovers the costs by charging operators for their estimated consumption. This charge varies geographically and temporally, and reflects the distance covered and the type of vehicle used.

- 4.17 As part of the work on the structure of charges, the Regulator and Railtrack have been reviewing the components of the way these costs, and therefore the associated charges, are calculated. The Regulator will be writing shortly to operators and interested parties, in order to consult them on the provisional results of this review, and the Regulator's proposals for electricity charges during the next control period. Following the publication of this paper, the Regulator will be working with Railtrack to produce a **draft** of the revised consumption rates, and operators will be consulted on any changes that are being proposed to their own individual consumption rates. Railtrack will also be asked to advise the Regulator on the implementation of the proposals.
- 4.18 The Regulator will use these consultation exercises as key inputs in the process of making his decision on the form of electricity charges for the next control period. His conclusions will be published with his conclusions on the structure of charges generally. In the meantime, however, Railtrack will need to continue working towards the implementation of the proposed system of charging and the Regulator intends to monitor the progress of this work.

Contractual incentive regimes

- 4.19 Railtrack is incentivised to improve performance by a balance of performance targets arising from its licence obligations and financial incentives in the performance regimes in access contracts with train operators. The Regulator expects both elements to be relevant in the next price control period. He sees financial incentives as continuing to play a major role in improving performance.
- 4.20 On 19 August 1999 the Regulator published a document in which he explained his intention to make an enforcement order requiring Railtrack to achieve a 12.7% improvement in its passenger train performance (as measured by minutes delay per passenger train caused by Railtrack) in the year ended 31 March 2000, and to impose a monetary penalty if Railtrack does not achieve this target.
- 4.21 In considering the appropriate level of penalty, the Regulator had regard to the interaction with the incentives provided by the existing contractual performance regime and the periodic review of Railtrack's access charges. In particular, the Regulator was concerned to avoid penalising Railtrack twice. It was, however, apparent to the Regulator that the existing performance regime does not provide an adequate incentive for Railtrack to deliver economically efficient performance improvements. He identified three possible reasons for this:

- (a) first, evidence has been submitted to the Regulator which indicates that the payment rates in the current performance regime are between 50% and 80% of the full value of reduction in delays;
- (b) second, the Regulator is concerned that the incentive rate is reduced if Railtrack performs better than the central bands contained in the performance regimes which were set before privatisation. There is a danger that, because of the way these benchmarks were set, the marginal incentive for Railtrack to improve performance is reduced despite the fact that the current level of performance is regarded as inadequate; and
- (c) third, the Regulator is concerned that some train operators may not be consistently enforcing their rights in relation to Railtrack's attribution of delays, and that this reduces the incentive for Railtrack to improve performance.

4.22 The Regulator concluded that these apparent shortcomings needed to be addressed through the monetary penalties included in the enforcement order. However, he also said that he would be examining these issues in more detail as part of the periodic review process and that he expects to issue a consultation paper on these issues in the near future. This will address a range of issues relating to the contractual and regulatory incentives to improve performance, including:

- (a) the balance between incentives and targets and the case for stronger incentives;
- (b) changes to Schedule 8 (performance regimes) including payment rates and profiles, benchmarks and other calibration issues;
- (c) changes to Schedule 4 (possessions regimes) including the extent to which operators are compensated, the effect on the cost of maintenance and renewal and the extent of "free" allowances;
- (d) regulatory criteria for approving amendments to performance regimes;
- (e) performance monitoring and attribution of delays under Track Access Condition B; and
- (f) the rules governing the management of operational disruption, particularly Track Access Condition H.

4.23 The proposed consultation paper is expected to be published in September 1999.

Property Allowance Scheme (PAS)

4.24 As stated in the third periodic review document in December 1998, the Regulator appointed the consultants DTZ Pida to assist him in the review of the Property Allowance Scheme (PAS). Their report, which was delivered in June 1999, set out three possible options:

- (a) remove the PAS, and set a "baseline" only, such that Railtrack would retain all profits above the assumed "baseline" for the control period;
- (b) continue with the PAS, and reset the "baseline" level;
- (c) continue with the PAS and remove the "baseline" level, such that all property proceeds were shared.

4.25 The Regulator consulted the industry on this report, with responses due by the end of July 1999. Those responses are now being considered by the Regulator, and he intends to include his conclusions on these issues with his provisional conclusions in December 1999. If retaining a baseline continues to be an option, the Regulator intends to ask his property consultants to provide an opinion concerning its appropriate level, taking into account reasonable projections for Railtrack's property income for the next control period.

Summary timetable

4.26 In summary, the key dates relating to the Regulator's assessment of the appropriate incentives for using and developing the network are as follows:

September 1999	Consultation on structure of charges
September 1999	Consultation on contractual incentive regimes
September 1999	Industry consultation on charging for electricity
October 1999	Industry consultation on usage cost research
October 1999	Industry consultation on congestion cost research
Spring 2000	Provisional conclusions on incentives
July 2000	The Regulator's final conclusions