OFFICE OF RAIL REGULATION

Periodic Review 2013

On-rail competition: Consultation on options for change in open access

June 2013

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Executive Summary

Summary

On-rail competition is the process by which train operators compete to run services for passengers on similar routes. This form of competition has shown that it can deliver real benefits for passengers, such as more seats and reduced fares. It also provides opportunities for 'open access operators' (OAOs) – train operators that operate independently of franchises - to compete for services. OAOs tend to be popular with passengers, scoring consistently highly in Passenger Focus' National Passenger Survey. However, currently only 1% of passenger services on Britain's railways are run by OAOs.

While there is currently limited space on Britain's railways to run competing services, ORR's view is that the existing processes for OAOs to run passenger services could be improved to create more opportunities. This consultation outlines options for enhancing on-rail competition on Britain's railways so that more passengers can enjoy the benefits of competition without excessive cost to taxpayers. ORR recommends an extended opportunity to support greater on-rail competition, with scope for OAOs to run new services where they previously could not, if they pay mark-ups to cover more of the costs they create.

The regulator welcomes views on its proposals for greater on-rail competition from all interested parties. The consultation closes on 9 August.

Why on-rail competition is important

1. This document is concerned with on-rail competition, by which we mean direct competition between rival train operating companies (TOCs) to attract passengers. It is a consultation paper on options for change in allowing access to open access operators (OAOs) and follows previous consultations in October 2011 and May 2012.

2. We have a statutory duty under section 4 of the Railways Act 1993 (the Act) "to promote competition in the provision of railway services for the benefit of users of railway services". We must balance this duty against our other duties, including duties to have regard to the funds available to the Secretary of State and

Scottish Ministers and “to enable persons providing railway services to plan the future of their businesses with a reasonable degree of assurance”.

3. Competition within Great Britain (GB)’s passenger rail sector currently takes place principally ‘for the market’ by way of franchise competitions. The extent of on-rail competition ‘in the market’ between overlapping franchises or between franchised passenger TOCs and open access operators is very limited as open access operators account for less than 1% of all timetabled train kilometres.

4. Despite the very limited role that competition currently plays, there is evidence that it drives passenger benefits including lower fares increases, higher growth in passenger numbers, direct services to new destinations, and various service quality benefits. Open access entrants, who always face strong competition from franchised operators, have higher passenger satisfaction scores than franchised operators, including other intercity operators, who in the main do not face on-rail competition.

5. Our views on the potential benefits of competition are shared at the European level. The European Commission has just published proposals for its fourth railway package[1]. We expect the final text of the fourth package to require the opening up of domestic passenger services with a view to encouraging increased competition – albeit Member States would have the option of limiting such rights of access where they would compromise the economic equilibrium of public service contracts. We will be monitoring these developments and reviewing our policies during CP5 to ensure consistency with any final measures.

6. Our vision is of a dynamic and commercially sustainable rail industry. One element of this will be access charges that recover a high proportion of the industry’s costs and are increasingly cost reflective. With a different charging structure open access could be an increasingly viable model for passenger service provision. We believe that open access has a part to play in moving towards a position where government is able to make a real choice between market-based service provision and a more planned approach through franchises. As the industry becomes less dependent on subsidy, beyond the specific services and capacity that funders choose to buy, the industry ought to become freer to take its own decisions on how best to meet its customers’ expectations and grow demand.

[1] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0025:FIN:EN:PDF.

Barriers to competition

7. This consultation provides some suggestions as to how the entry barriers caused by our current approach to the allocation of network capacity, in particular the restrictions on open access calling patterns that result from our application of the 'not primarily abstractive test'[2] (NPA test), could be addressed.

8. We recognise that the limited reach of on-rail competition results from a number of factors, including our current access policy. These include the following:

(a) The difficulties in getting the long term certainty over access rights, and in getting that certainty early enough, to enable open access operators (who do not have the security of a franchise) to invest in and plan their operations;

(b) The governments' current approach to the provision of passenger rail services, which sees franchise services account for more than 90% of network capacity, limiting the scope for open access passenger services;

(c) Uncertainty about other factors including future levels of access charges. OAOs need to acquire rolling stock, and bear the risk that the costs of that rolling stock may not be covered by revenues. The lifespan of those assets means that in doing this OAOs need to take a long term view;

(d) The way in which Network Rail manages network capacity, where we consider there is scope for Network Rail to improve how it integrates its strategic planning vision into its timetable development activity and how it prepares for major forthcoming changes in the timetable, thus potentially increasing capacity on the network. This also includes the way in which Network Rail manages the timetabling process.

9. We are taking steps as part of PR13 and more widely to address the other barriers. We acknowledge that the regulatory framework within which Network Rail operates, including the structure of its charges, means that the company is not effectively incentivised to make more capacity available in response to unexpected demand. We are therefore proposing changes to the volume incentive (which specifically rewards Network Rail for doing this) in our Draft Determinations for PR13 to improve these incentives[3]. We are also proposing to define key performance indicators to monitor and encourage Network Rail's system operator role. In addition, we will be working with the industry over the first few years of CP5, including working with the Rail Delivery Group, to look at the structure of Network Rail's charges to see what scope exists to improve the quality of the signals they send for efficient use and provision of network capacity. We

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[2] The NPA test is a form of economic evaluation, which ensures that the proposed new open access service will generate an acceptable level of new-to-rail business, rather than merely abstracting business from the existing operators.

[3] Our Draft Determinations were published on 12 June 2013 http://www.rail-reg.gov.uk/pr13/PDF/pr13-draft-determination.pdf . For our earlier consultation on Volume Incentive please see http://www.rail-reg.gov.uk/pr13/consultations/volume-incentive.php

also acknowledge the work that Network Rail is doing to improve its flexibility and responsiveness in capacity management.

Options for consultation

10. The options we are considering in this document involve increasing the opportunities available to open access operators but at the cost of their bearing additional charges (in the form of a 'mark-up' over and above the variable track access charges they currently pay to Network Rail) that would both affect the incentives under which they operate and provide funds to contribute to their costs on the network. However, we recognise that under the government's current policy franchised services will continue to account for the vast majority of passenger services for the foreseeable future.

11. A number of franchise competitions are due to take place during CP5 (i.e. 1 April 2014 –31 March 2019) and they may be affected by uncertainty over our access policy. We have consulted about our policy during PR13 and aim to reduce uncertainty by consulting further now and approving the key principles underpinning any change as part of our final determinations for CP5.

12. This document sets out three broad options. Two options for reform (Options 2 and 3, which are compared with Option 1, the status quo[4]) differ in the method of calculation of the mark-up:

(a) Under Option 2 an open access operator would, in return for a partial relaxation of the NPA test, pay a mark-up as a contribution to Network Rail's fixed costs that is calculated on the basis of the level of abstraction its services would bring over and above the currently permitted level.

(b) Under Option 3 an open access operator would, in return for a partial relaxation of the NPA test, pay a mark-up calculated in a similar manner to the way in which access charges are currently calculated for franchised passenger services and/or similar to the ways in which we envisage these charges evolving in the future on all of its services. Two potential variants of Option 3 are discussed. They involve aligning the charging structure for OAOs failing the NPA test with, in the case of 3A, the charging regime that franchised passenger operators currently face and, in the case of 3B, an estimate of the avoidable costs caused by open access.

13. The options do not represent fully worked out, operational policies. Rather, we set them out at a high level, identify which of these are worth pursuing and seek views on this. We are publishing them now because we need to approve in principle any mark-up to be levied by Network Rail as part of our current access charges review in accordance with the Railway Infrastructure (Access and Management) Regulations 2005 (the Access and Management Regulations).

[4] Under which access is not granted if the NPA test is failed.

14. It is important to note that none of the options set out in this document would alter the position of existing OAOs, who would retain the access rights they have on the current basis, thereby not undermining any existing business models. It is also important to recognise that, given the other barriers which exist to open access and especially the scope of the franchise arrangements, we do not expect any of the changes we outline in this document to produce a fundamental step change in the scope of open access operations in the near future. Nevertheless, we consider this sort of change to be an important step towards facilitating more open access over the longer term.

15. Options 2 and 3 provide two broad ways to promote on-rail competition. First, they could enable current or prospective OAOs running services that have been configured in order to pass the NPA test to change their stopping patterns so as to include more stops at major stations. Secondly, they could provide potential for entirely new services that would otherwise not be feasible given the constraints imposed by the NPA test.

16. Option 2 is closely linked to the balance of our statutory duties to promote competition and to have regard to funders' budgets since the access charge mark-ups are directly linked to the increased revenue diversion that results from the greater scope for on-rail competition. Option 2 therefore expands the scope for competition without increasing OAOs' incentives to raise the rate of abstraction.

17. It also approximates to economic principles of efficient pricing by linking the size of the mark-up to the extent to which affected customers would be likely to be diverted to different operators rather than to different modes of transport.

18. However, funders are unlikely to be indifferent between Option 2 and the status quo. Under Option 2 there would be likely to be higher levels of abstraction: both higher levels to which the mark-up is applied and higher levels permitted under the NPA test because of the existence of more newly generated business. Franchisees and funders might not consider that mark-up revenue adequately compensated them for the impacts of lost revenue and additional risk.

19. Under some scenarios OAOs could pay mark-ups that are significantly higher than the fixed track access charges (FTACs) paid by franchisees, although they would not, of course, pay any franchise premium. And Option 2 has a potential for greater uncertainty for train operators than exists under the status quo. OAOs would have to make access applications without knowing the level of access charges (mark-ups) that they would face in the initial access period. They would further face uncertainty at the time of agreeing access rights as to the level of mark-up that they would face in the longer term, once initial access rights had expired. Franchised operators would face greater long-term uncertainty as to the extent of direct competition that they would face when making bids for long-term franchises.

20. Option 3 also balances our statutory duties to promote competition and to have regard to funders' budgets but the mark-up is not so directly linked to the increased revenue diversion that results from the greater scope for on-rail competition that it provides. It is, however, directly linked to a measure of Network Rail's costs. It would in some respects place open access and franchised operators on a more equal footing than is currently the case, since open access currently pays only variable track access charges. But important differences would remain. As a cost-based charge, it could represent part of our move towards more cost reflectivity in access charges generally.

21. Cost-based charges are a familiar feature of railway network access and are consistent with our intention of moving towards more cost-reflective charging. Option 3 would be relatively simple to implement and OAOs would be able to make access applications with a good deal of certainty over the level of mark-up that they would face.

22. On the other hand, Option 3 would in some cases allow abstraction at a lower cost to OAOs since at its current level the FTAC on some key routes, including InterCity East Coast, is small relative to the potential impact of fully abstractive services on franchise value. The impact would not be constant across franchises (where the relative magnitude of the FTAC and revenue earning potential would differ) or over time (for example if the relationship between network grant and FTAC were to change). It would tend to create more opportunities for open access where fixed track access charges were small relative to revenues.

23. There is some uncertainty over the level of mark-up that would apply after the initial period and, perhaps to an even greater extent than under Option 2, it may not be the case that additional payments by OAOs compensate those affected by the entry. Under this option, we would allow greater scope for more abstractive open access and we would balance this by ensuring that such open access operations paid a greater contribution to Network Rail's revenue requirement than currently. In this way we would still be balancing our statutory duties. But the precise distributional effects of such a change would be difficult to predict.

24. We presently consider that Option 2 balances our various duties more effectively than the other options. Option 3 has a number of advantages but we are concerned that it may not adequately reflect the different extents to which different types of access may cause problems for funders.

25. We are keen to hear stakeholders' views on these options in general and on a number of detailed aspects of them that are also discussed in this document. We are particularly keen to hear from current or potential OAOs about the extent to which the greater scope to provide services that Options 2 and 3 would afford would be of real commercial value and lead real changes in service provision, and from stakeholders generally as to the issues identified in respect of the incentive effects of these options.

1. Introduction

Purpose of this document

1.1 This document is concerned with on-rail competition, by which we mean direct competition between rival train operating companies (TOCs) to attract passengers. It is a consultation paper on options for change in allowing access to open access operators (OAOs) and follows previous consultations in October 2011 and May 2012.

1.2 In our May 2012 PR13 incentives framework document ('the incentives document'), we said that following the October 2011 consultation on the potential for increased on- rail competition ('the ORC consultation'), we would consider modifications to our access and charging policy. This would include looking at the scope for approving access for open access operators on the basis of a cost benefit test that would be wider than the current policy and allow them more flexibility in their stopping patterns in return for paying a higher proportion of the infrastructure costs than is currently the case.

1.3 In this document we therefore consult on a range of issues and options that offer increased potential for open access services during CP5 (i.e. 1 April 2014 –31 March 2019) and beyond. We welcome stakeholders' views on all of the options and issues described in this document (and summarised in questions listed in annex 1) but are particularly interested in two aspects.

(a) The ultimate impact of the changes that we consider here will depend crucially on the ability of train operators to put forward commercial propositions based on any new framework. A key aim, therefore, of this document is to get stakeholder views on whether and how our proposals would enable them to put forward new commercially viable open access propositions. In particular, the options for change discussed in this document involve an environment whereby open access operators would face less certainty than is currently the case. Stakeholder views on the significance of this issue and how it could be mitigated would be appreciated.

(b) We need to balance our statutory duty to promote competition with our other statutory duties, including to have regard to the funds available to the Secretary of State and Scottish Ministers. A second key aim of this document is to hear views on the impact our proposals, and any resulting increase in open access, would have on franchises and franchise values and how we might respond to any such impact.

Structure of this document

1.4 The structure of the remainder of this document is as follows.

- Chapter 2 explains the existing open access arrangements, sets out why we are considering changing them, and describes our access charging policy and its legal background.
- Chapter 3 describes and assesses the main options for reform.
- Chapter 4 deals with more detailed and practical issues connected with the options.
- Annex 1 provides worked examples of one of the options considered and annex 2 lists the questions posed in the document.

Responding to this consultation

1.5 We welcome responses on any aspect of this consultation, which covers a two month period. Please send your responses in electronic (or, if this is not possible, in hard-copy) format by Friday 9 August 2013 to:

Philip Willcox
Email: philip.willcox@orr.gsi.gov.uk
Office of Rail Regulation
One Kemble Street
London
WC2B 4AN
Tel: 020 7282 2176.

1.6 Our aim is that all documents on our website adhere to certain standards of accessibility. For this reason, we would prefer to receive your correspondence in an editable format such as Microsoft Word. If you do send a PDF document or similar, we would be grateful if you could create it from an electronic file rather than an image scan, and ensure that no security is set in the document properties.

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

2. Background

Introduction

2.1 This chapter contains the following sections.

- *Access* – a description of our existing access policy*;*
- Why we are thinking about change – reasons for change and other developments taking place*;*
- *Access charging* - a discussion of our approach to access charging and the legal background governing it*.*

Access

The status quo

2.2 Competition within Great Britain (GB)'s passenger rail sector currently takes place principally 'for the market' by way of franchise competitions. Franchises are contracts between government and private sector TOCs for the provision of passenger rail services in a particular geographical area, or over particular routes. Under the current system, profitable and unprofitable services are often bundled together into a single franchise.

2.3 Since privatisation there has been a trend towards franchise consolidation, leading to fewer, larger franchises. The Office of Passenger Rail Franchising (OPRAF)[5] let 25 initial franchises, but this number has since fallen, and will be reduced to 17 if current plans to merge franchises go ahead[6]. The move towards fewer franchises was initiated by the SRA starting in the early to mid 2000s, with an objective of ensuring a single TOC at key London termini. The trend has continued under the franchising process

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[5] The Office of Passenger Rail Franchising was responsible for letting and supervising passenger rail franchises between 1993 and 2001, when it was subsumed into the new Strategic Rail Authority (SRA).

[6] Some services are provided via alternative arrangements, for example London Overground and Merseyrail services are let by Transport for London (TfL) and Merseytravel respectively.

conducted by the Department for Transport (DfT)[7] and, combined with the small role of open access (see below), means that most franchised operators face very little on-rail competition on key flows.

2.4 Franchising plays a key role in the privatised industry structure. The total subsidy to the entire rail industry was around £4bn in 2011/12[8], most of this subsidy being paid direct via the capital grant to Network Rail. The amount of subsidy varies significantly between franchises[9]. Franchise cost to the taxpayer depends on the value placed on the franchise by bidders – the higher the value placed on a franchise by a bidder the lower the (net) cost to the taxpayer will be, and in some cases franchises return a (net) premium to the taxpayer. All other things being equal, this value is likely to be higher (and the cost to the taxpayer lower) if there is less competitive on-rail challenge. However, while some additional value results from a reduction in risk if there is no competitive challenge, some stems in part from the franchisee's ability to use its market power to extract economic rent from customers who are likely to be disadvantaged by the lack of competition.

2.5 The test that we apply in deciding whether or not to approve access for OAOs (the NPA test, see below) reflects the trade-off between the positive effects of on-rail competition in terms of passenger benefits and its potential negative effect on the financial position of franchisees and franchise value. However, the extent of on-rail competition 'in the market' between franchised passenger TOCs and passenger open access operators is currently very limited as open access operators account for less than 1% of all timetabled train kilometres[10].

Our access policy

2.6 Our *Criteria and Procedures*[11] document sets out the criteria and procedures that we expect to follow in processing applications for track access contracts. It includes specific information about how we approach competing applications for the track access rights to run passenger services. This includes a new open access service that would either compete with franchised services and so impact on the public sector funder's budget or that would compete with an existing open access service, where that new service could force the existing open access operator to withdraw from the market and reduce overall competition on the network.

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[7] DfT and Transport Scotland are GB's two franchising authorities but this document primarily refers to DfT given that there has historically been a single Scottish franchise, ScotRail.

[8] See, for example, http://www.publications.parliament.uk/pa/cm201213/cmselect/cmtran/329/32905.htm.

[9] See https://www.gov.uk/government/publications/rail-subsidy-per-passenger-mile.

[10] See, for example, Table 1.4a, *National Rail Trends 2010-11 Yearbook*, ORR.

[11] See http://www.rail-reg.gov.uk/server/show/nav.2409.

2.7 Our current approach restricts open access operators to the provision of services that will have a limited impact on the revenues of franchised TOCs. This policy reflects a balancing of our statutory duties, which include not only a duty to promote competition for the benefit of users of railway services, but also duties to have regard to the funds available to the Secretary of State for the purposes of his functions in relation to railways or railway services, to have regard to the expenditure that is to be incurred by Scottish Ministers and to enable persons providing railway services to plan the future of their businesses with a reasonable degree of assurance. In particular, it reflects the need to preserve the financial viability of franchises. The NPA test is a form of economic evaluation, which ensures that the proposed new open access service will generate an acceptable level of new-to-rail business, rather than merely abstracting business from the existing operators. It has tended to direct open access services towards a greater focus on destinations that are not currently served by direct franchised services. For example Grand Central's 'West Riding' service[12], which offers services between West Yorkshire and London Kings Cross stations, differs from geographically similar franchised services in a number of key ways: most notably it does not call at Leeds and, unlike most of the franchised services, offers a direct service between Bradford and London. On-rail competition that reduces franchised revenues will, in the long run, tend to affect the funds available to government through reduced franchise premium/higher franchise subsidy

2.8 DfT's March 2012 Command Paper *Reforming our Railways: Putting the Customer First*[13] set out the dichotomy in paragraphs 4.41-42 and explained why it did not support an increase in open access competition.

> *"Most passenger services are currently provided within the franchise framework though there is some limited competition from open access operators, particularly on the East Coast Main Line. The ORR has consulted on the scope for higher levels of open access operations, citing the potential for efficiencies and wider economic benefits, albeit at a potential cost to Government.*

> *"Government values the benefits of competition that open access can bring, such as greater choice and lower fares for some passengers. However, these benefits must be set against the need to reduce the overall cost of the railway to taxpayers. Open access operators are only charged marginal track access costs compared to franchised service operators who are charged full track access charges. This means that open access operators are effectively being subsidised by passengers on franchised services which are paying full track access charges to support the maintenance and operation of the network. Furthermore, where franchise bidders perceive a risk of open access competition undercutting them on costs they are likely to offer much lower bids. This detrimentally impacts on the taxpayer's interest by putting further pressure on fares and making it harder to deliver the rail upgrades that passengers want.*

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[12] See http://www.grandcentralrail.com/tickets-timetables/train-timetables/.

[13] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/4216/reforming-our-railways.pdf.

Given the UK's financial position, Government does not therefore at this stage support an increase in open access competition."

2.9 We recognise the crucial importance of the funds available to the Secretary of State and in this paper we consider relaxation of the conditions for open access only on the assumption that operators contribute more to costs. We also pay particular regard to limiting OAOs' incentives to abstract customers from franchisees.

2.10 A number of franchise competitions are due to take place during CP5 and they may be affected by uncertainty over our access policy. We have consulted about our policy during PR13 and aim to reduce uncertainty by consulting further now and approving the key principles underpinning any change as part of our final determinations for CP5.

Why we are thinking about change

Evidence on the benefits of competition

2.11 We are concerned that the limited nature of on-rail competition is failing to provide benefits to customers. The ORC consultation outlined a range of evidence on the potential for on-rail competition to drive benefits. These included the following.

- Summaries of a 2009 Arup study, *On-rail Competition Analysis - Key Findings,* which used a series of case studies to test a central proposition that, other things being equal, more on-rail competition would lead to lower fares, faster growth in passenger numbers, and what Arup termed *"soft"* passenger benefits, generally around service quality improvements.

- Passenger satisfaction scores - open access operators consistently score higher than their franchised counterparts in passenger satisfaction surveys. Research by Passenger Focus (PF)[14] shows that, since PF started to include open access operators in its National Passenger Survey (NPS) in autumn 2009, all open access operators have always scored significantly higher for overall satisfaction than any of the comparable franchised intercity operators.

[14] http://www.passengerfocus.org.uk/research/nps/content.asp?dsid=496, quoted averages represent ORR analysis.

- Summaries of a 2011 report by MVA and the Institute for Transport Studies at the University of Leeds (the MVA report), in particular the results of a modelling exercise for a series of scenarios for increased on-rail competition on the key East and West Coast Intercity franchises. In a review of the literature that accompanied the modelling results the report concluded, "*There is ample evidence that increased competition leads to lower prices and better services. Typically both [open access and franchise operators] cut price when competition emerges, frequencies improve, direct services are offered to a greater range of destinations, and on board services may improve.*"

Other aims

2.12 Our vision is for a dynamic and commercially sustainable railway industry. One element of this will be access charges that, firstly, recover a higher proportion of the industry's costs[15] and, secondly, are more cost reflective. With a different charging structure, open access could be a more viable model for passenger service provision. Without prejudicing any decision by the UK or Scottish governments, by changing the charging structure we can help to give the governments a real choice between market-based passenger service provision and a more government-planned, procured and monitored approach through franchises. A significant increase in open access, or even the prospect of it, could help to sharpen incentives on the franchise operators to achieve efficiencies, and to respond to passenger demand.

Barriers to competition

2.13 We recognise that our access policy itself provides a barrier to competition. That is why this consultation provides some suggestions as to how the entry barriers caused by our current approach to the allocation of network capacity, in particular the restrictions on open access calling patterns that result from our application of the NPA test, could be addressed.

2.14 We recognise that the limited reach of on-rail competition also results from a number of other factors. These include the following:

(a) The difficulties in getting the long term certainty of access rights, and in getting that certainty early enough, to enable open access operators (who do not have the security of a franchise) to invest in and plan their operations;

(b) The governments'[16] current approach to the provision of passenger rail services, which sees franchise services account for more than 90% of network capacity, limiting the scope for open access passenger services;

[15] Variable track access charges account for a very small proportion at present. Figures are given in paragraph 2.25.

[16] I.e. the UK's Secretary of State for Transport and Scottish Ministers.

(c) Uncertainty about other factors including future levels of access charges. OAOs need to acquire rolling stock, and bear the risk that the costs of that rolling stock may not be covered by revenues. The lifespan of those assets means that in doing this OAOs need to take a long term view;

(d) The way in which Network Rail manages network capacity, where we consider there is scope for Network Rail to improve how it integrates its strategic planning vision into its timetable development activity and how it prepares for major forthcoming changes in the timetable, thus potentially increasing capacity on the network. This also includes the way in which Network Rail manages the timetabling process.

2.15 We are taking steps as part of PR13 and more widely to address the barriers where we can, balancing our statutory duties. We acknowledge that the regulatory framework within which Network Rail operates, including the structure of its charges, means that the company is not effectively incentivised to make more capacity available in response to unexpected demand. We are therefore proposing changes to the volume incentive (which specifically rewards Network Rail for doing this) to improve these incentives[17]. We are also proposing to define key performance indicators that we will use to monitor, and beyond CP5 incentivise, Network Rail's system operator role. In addition, we will be working with the industry over the first few years of CP5, including working with the Rail Delivery Group (RDG), to look at the structure of Network Rail's charges to see what scope exists to improve the quality of the signals they send for efficient use and provision of network capacity. We also acknowledge the work that Network Rail is doing to improve its flexibility and responsiveness in capacity management and expect to see the company make significant further progress in this area in CP5.

2.16 In another programme of work we are requiring Network Rail to manage capacity on the network more efficiently and to make capacity available where it is efficient to do so through the introduction of better access planning and timetabling arrangements. We note that Network Rail is working hard to establish a transparent and aligned end-to-end process starting with the initial strategic planning stages through decisions on available capacity and the sale of access rights leading to the development of a timetable and its subsequent introduction. Network Rail is working closely with stakeholders, particularly TOCs, to ensure that it understands and takes account of their requirements. This is particularly important in terms of resolving issues surrounding timetabling and the capacity trade-offs required when faced with competing applications for capacity on a constrained network.

2.17 A further important barrier to greater open access is raised by government franchising policies. The governments have, reasonably and legitimately, expanded the scope of the services provided by

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[17] Our Draft Determinations were published on 12 June 2013, see http://www.rail-reg.gov.uk/pr13/consultations/draft-determination.php. For our earlier consultation on Volume Incentive please see http://www.rail-reg.gov.uk/pr13/consultations/volume-incentive.php.

franchises, leaving little scope for open access passenger service provision beyond the very marginal. Clearly, any decision on the nature and scope of franchised passenger services is not for us and will be made by the governments. But in our view, by freeing up scope for greater open access by reforming those areas of policy that do sit with us, we expand the set of choices available to the governments in the future, as they consider how best passenger services may be provided. We consider that this is worthwhile because the changing economics of the railway make it increasingly likely that a greater number of services will no longer require government subsidy, at least to cover operating costs, which will naturally prompt consideration of the nature and scope of future franchises.

Q1- Do you agree that we have identified the key barriers to open access competition? Do you consider that the steps we are taking will help to address these barriers or that there are other actions we should be taking? Do you agree that, given the plans for other work outlined above, the remaining barriers imposed by the NPA test are important?

Other drivers of change

2.18 In the future it may be the case that some barriers will be eased by technological change. A notable example of this is the European Rail Traffic Management System (ERTMS)[18]. This is an 'in-cab signalling' system which would allow more trains to be operated on the network, thereby potentially freeing up capacity and facilitating greater competition. In due course electrification could also allow more trains to be operated on the network.

2.19 There will be other changes during CP5 as capacity is enhanced to further the strategic priorities set out in the High Level Output Strategy (HLOS).

2.20 Our views on the potential benefits of competition are shared at the European level. The European Commission has just published proposals for its fourth railway package[19]. We expect the final text of the fourth package to require the opening up of domestic passenger services with a view to encouraging increased competition – albeit Member States would have the option of limiting such rights of access where they would compromise the economic equilibrium of public service contracts. We will be monitoring these developments and reviewing our policies during CP5 to ensure consistency with any final measures.

[18] http://www.ertms.com/home.aspx.

[19] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0025:FIN:EN:PDF.

Q2 - What implications do you think that industry developments such as ERTMS, electrification and changes in EU law could have for our approach to on-rail competition? Are there other developments that could have an impact on our approach?

Access charging

2.21 This consultation considers altering access charges to enable greater access for OAOs. This section therefore describes our approach to access charges in general and the relevant legal framework.

Our approach to access charging

Current approach

2.22 One of our key aims for PR13 is to facilitate and encourage the alignment of incentives across the industry, in the best interests of passengers, freight customers and taxpayers. Access charges determined through PR13 are an important part of the industry incentive framework, and also part of the interface between Network Rail, passenger and freight train operators.

2.23 Charges have the potential to serve at least four purposes. They provide:

(a) Cost recovery: A mechanism for Network Rail to recover the efficient costs it incurs in providing track and station infrastructure used by train operators;

(b) Signals for efficiency of use: Users make better use of products, including capacity, by responding to signals sent through prices based on cost. Charges provide signals to train operators, their suppliers and funders for the efficient use and development of vehicles and the infrastructure;

(c) Signals for cost efficiency and allocation: Charges allow costs to be allocated. Where charges are borne by those who have caused them to be incurred they provide an incentive to reduce those costs; and

(d) Signals for efficient provision of goods and services: Charges send signals to providers as to the goods and services they should provide. In this case, charges could provide an incentive to Network Rail to respond to signals sent by users through prices and their consumption decisions about what they are willing to pay for and what Network Rail should therefore provide (as long as those charges cover the cost of provision).

2.24 ORR has responsibility for establishing the charging framework and the specific charging rules governing the determination of the fees to be charged by Network Rail and audits and approves the final charges. Network Rail has responsibility for determining the fees to be charged in accordance with the charging framework and the specific charging rules and for collecting the fees.

2.25 In 2011-12 around 90% of Network Rail's revenue[20] was earned through charges paid by passenger and freight operators and grant income determined as part of PR08. Around 78% came from a combination of the network grant[21] (c. 64%) and fixed access charges (c. 14%). Both of these income sources are fully determined (in real terms) by the periodic review and are backed by a government guarantee. The other (variable) access charges, which accounted for about 10% of revenue, are particularly important in policy terms as a tool for incentivising efficient behaviour of the operators and Network Rail.

2.26 Now, OAOs pay only variable track access charges (VTAC). Franchised TOCs pay both VTACs and a fixed track access charge (FTAC). The difference in the charges paid by franchised TOCs and open access passenger operators reflects a range of issues including the restrictions on the stopping patterns of open access operators imposed by the NPA test and, particularly, the provisions in the franchise agreements. We consider open access passenger operators and franchised operators to be in different market segments[22]. We set out our proposals for open access operators to make more of a contribution towards Network Rail's costs, in return for more potential access to the network, in Chapter 3.

Future developments

2.27 Over time, we would like to see a reduction in the size of the network grant, so that a greater proportion of Network Rail's costs is recovered from charges to its customers. Through the beginning of CP5 we will also work with the industry, including the Rail Delivery Group, to consider reforms to the structure of charges, which will include looking at the balance between fixed and variable charges, the different types of variable charges and the levying of mark-ups by Network Rail to enable it to fully recover its costs.

2.28 Our strong preference is to move towards greater cost reflectivity in charges. More cost reflective prices help to:

- drive cost savings and send better signals to Network Rail and its customers for the efficient provision and use of access to the network, which is itself a scarce resource; and
- improve transparency – making it clearer who pays for what and what they receive in return.

2.29 In line with this, we are also keen to see franchise passenger train operators given greater incentive to act on the signals sent by charges, and to work with Network Rail to deliver efficiencies that would keep those charges down. The 'efficiency benefit sharing mechanism' that we introduced at PR08, and which we are improving by disaggregating to the route level in PR13, helps with this. But we would like to see

[20] Draft determinations June 2013, paragraph 16.15 onwards.
[21] Government currently pays network grant directly to Network Rail in lieu of a significant proportion of access charges.
[22] As supported by Mr Justice Sullivan in the case of GNER and ORR & Others [2006] EWHC 1942 (Admin), at paragraphs 73 and 74 of the judgment.

franchised passenger train operators more exposed to changes in Network Rail's charges, rather than being held harmless as they are now through their franchise agreements.

2.30 It seems to us that any relaxation of the NPA test to allow additional open access services must address the basis on which such additional services incur charges. If that were not the case then the additional services could seriously disrupt the current UK framework by leading to a situation where franchisees, and through them government, were exposed to significant actual and potential abstraction of franchise revenues with no compensating gain. We are therefore considering what changes we could introduce to the access charging structure for open access that would in some way mitigate the negative effect on government funds. If this can be achieved in an appropriate way then consumers could benefit from readier access to the network for open access operators and, ultimately, more open access services. In considering changes to open access charges, we need to consider – and would welcome stakeholder views on – how change now might be affected by possible future developments, especially a move towards more cost reflectivity in the charging structure overall.

The legal framework

2.31 Any charges for access to the network must comply with the Railway Infrastructure (Access and Management) Regulations 2005 (the "Access and Management Regulations"). The relevant legislation is a transposition of EU Directive 2001/14. Under the Access and Management Regulations, while the basic principle is that charges must be set to reflect the costs directly incurred, some exceptions are permitted. The exception relevant here is a mark-up on charges (as specified in paragraph 2 of schedule 3). The Access and Management Regulations provide that mark-ups may be levied, *"in order to obtain full recovery of the costs incurred…on the basis of efficient, transparent and non-discriminatory principles, whilst guaranteeing optimum competitiveness, in particular in respect of international rail freight"*. The effect of levying mark-ups "must not be to exclude the use of infrastructure by market segments which can pay at least the cost that is directly incurred as a result of operating the railway service, plus a rate of return which the market can bear". Any mark-up on charges payable by open access operators will need to be consistent with the Access and Management Regulations as explained in Chapter 3.

2.32 We also have a number of statutory duties, set out in section 4 of the Act and other legislation. We consider particularly relevant duties in the context of assessing charges for open access operators to be:

(a) To promote the use of the railway network in Great Britain for the carriage of passengers and goods, and the development of that railway network, to the greatest extent which we consider economically practicable;

(b) To enable persons providing railway services to plan the future of their businesses with a reasonable degree of assurance;

(c) To promote competition in the provision of railway services for the benefit of users of railway services;

(d) To have regard to the funds available to the Secretary of State for the purposes of his functions in relation to railways or railway services;

(e) To have regard to any general guidance given to us by the Secretary of State about railway services or other matters relating to railways;

(f) To have regard to any general guidance given to us by Scottish Ministers about railway services wholly or partly in Scotland or about other matters in or as regards Scotland that relate to railways;

(g) Our duty which, in summary, requires that we have regard to the expenditure that is to be incurred by Scottish Ministers;

(h) To have regard to the interests, in securing value for money, of the users or potential users of railway services, or persons providing railway services, of the persons who make available the resources and funds and of the general public;

(i) To provide efficiency and economy on the part of persons providing railway services;

(j) Otherwise to protect the interests of users of railway services; and

(k) Our duty under section 72 of the Regulatory Enforcement and Sanctions Act 2008 which requires us to keep our functions under review and secure that in exercising those functions that we do not (i) impose burdens which we consider to be unnecessary, or (ii) maintain burdens which we consider to have become unnecessary.

2.33 In chapter 3 we discuss further how our policy proposals are an appropriate balancing of our statutory duties.

This document

2.34 At this stage we are not, in this consultation, proposing a fully worked out, operational policy. Rather, what we seek to do now is set out the available options at a high level to get your view on which of these, are worth pursuing. If we decide to pursue any of the proposals set out in this document we will set out for consultation further, more operational, details associated with any policy change in a later document.

2.35 We are publishing this consultation now because the Access and Management Regulations require us to approve a mark-up during the course of an access charges review. We propose to approve the principles underlying the mark-up within the timescales of PR13, with certain precise details fleshed out in due course.

3. Options for reform

Introduction

3.1 This, the key chapter of this document, contains the following subsections:

(a) A discussion of what we are trying to achieve;

(b) A description of the options for change;

(c) Evaluations of each of the three options in turn; and

(d) Discussion of their consistency with the Access and Management Regulations.

What we are trying to achieve

3.2 As set out in our October 2011 ORC consultation, and noted in the background section of this document, we consider that open access competition brings significant benefits. However, its scope is currently very limited. We are keen to explore how we may increase the scope for more open access competition and the benefits it brings, while striking the right balance between this and our other statutory duties, including any potential detriment to the funds available to the Secretary of State and Scottish Ministers and operators' ability to plan their businesses.

3.3 Our current application of the NPA test reflects a balance of our statutory duties to promote competition whilst also considering the positions of funders and train operators. Any change to our current approach would also need to reflect this balance. A key consideration for us is therefore how an increase in the scope for open access could, by increasing revenue risk for franchised passenger operators, affect franchise value and therefore the funds available to the Secretary of State and Scottish Ministers. And, on the basis that there would be such an effect, how we could change our policy in relation to open access in a way that would mitigate the downsides. In doing so we also have regard to our other statutory duties listed in 2.32 including those to promote the use of the railway network, enable service providers to plan their businesses, secure value for money and provide efficiency and economy.

3.4 The options we are considering involve increasing the opportunities available to open access operators but at the cost of their bearing additional charges that would both affect the incentives under which they operate and provide funds to contribute to their costs on the network.

3.5 Other considerations are also relevant when considering charging issues. Our statutory duties also require us to promote the use of the railway to the greatest extent economically practicable and to promote efficiency and economy. Charges are important instruments in achieving economic efficiency and we are setting up a work program to develop options for further improving access charges in good time for any new structure to be incorporated in the next periodic review (PR18) for operation in CP6. We expect to involve the RDG Contractual and Regulatory Reform sub-group and the wider industry in discussing changes to charges, and a steering group will be created to guide the work.

3.6 Our aim in undertaking this work on charges is to identify scope for them to send better signals for efficient provision and use of network capacity and for more efficient cost recovery, ultimately to improve value for money. Subject to our discussion with the industry, we are keen that the work should look at the balance between recovery of costs from network grant, fixed charges and variable charges.

3.7 To be economically efficient prices should be cost reflective. Unit prices should be set to reflect the cost of providing the additional unit of output. These prices incentivise efficiency by encouraging producers to provide the product and customers to buy it if and only if the value to customers exceeds the cost[23].

3.8 Our current approach to access charging (for all passenger and freight operators) attempts to achieve this by setting access charges on the basis of a measure of short run marginal cost (SRMC). However, one reason we are reviewing the approach is that it may be incomplete, for example in not reflecting the value of capacity. Nor does it reflect potential external benefits associated with granting access, including the benefits of competition.

3.9 Pricing at marginal cost may result in total revenue that differs from total costs. Indeed, the sum of revenues from Network Rail's present variable access charges (which broadly reflect short run marginal costs) falls far short of its total revenue requirement in part because it incurs a large proportion of fixed and common costs regardless of how much traffic runs on its network. Because of this we use other charges to ensure cost recovery. In CP4 these included fixed charges paid by franchised passenger train operating companies and the freight-only line charge levied as mark-ups over and above variable charges on spent nuclear fuel and ESI coal. These charges are lower than they otherwise would be because government currently pays network grant directly to Network Rail in lieu of a significant proportion of access charges.

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[23] This sort of efficiency, concerned with using scarce resources to produce what is valued most, is known as "allocative efficiency" and is distinguished from "productive" efficiency" or producing at least cost.

3.10 There are key considerations that we bear in mind in deciding where and how to apply mark-ups. These stem from both standard economic principles and the Access and Management Regulations that set out the conditions which must be met in order for an infrastructure manager to be able to levy mark-ups.

3.11 Under the Regulations, mark-ups can only be levied on market segments that have the ability to bear them (i.e. they should not be levied on market segments where this would exclude the use of infrastructure) and must be based on efficient principles (i.e. they should not lead to inefficient changes in behaviour). Inefficiency might occur where the mark-up caused a loss of traffic on the network, particularly given the likelihood of additional costs associated with road congestion. This is related to the concept of 'Ramsey' mark-ups, a theoretical economic ideal in which the mark-ups on individual services are inversely proportional to the extent to which demand is affected by price (the elasticity of demand).

3.12 Ramsey pricing provides an economically efficient mark-up, where the mark-up is highest where demand is affected least (it is "inversely proportional to the elasticity of demand"), but it is important to note that the relevant elasticity is that for the product and not for its sale by any particular provider. The elasticity that should be used is called a "super-elasticity", which is the overall elasticity of demand less the "cross-price" elasticity, which is the extent to which a rise in price by one provider increases demand for the other provider. There are echoes of this adjustment in the NPA test, which measures the extent to which demand is "generative" (i.e. additional) rather than "abstractive" from another operator.

3.13 However, any elasticity is difficult to estimate and mark-ups actually used are normally based on rules of thumb such as being equi-proportionate or excluding products where the elasticity is thought to be high. For example, in GB rail the freight-only line charges are only levied on commodities whose demand for rail transport is inelastic.

3.14 Other important criteria are that the mark-ups should recover what is needed to cover costs and be relatively simple to calculate, transparent, and non-discriminatory.

Options for change

3.15 The changes to our approach that we consider in this document involve both the retention of the option for OAOs who pass the current NPA test to operate services on that basis and pay only VTACs but the creation of an additional option for OAOs who would not pass the current NPA test still to enter paying VTACs plus a mark-up. More open access competition tends to reduce franchise premium or increase subsidy payments, whilst mark-ups paid to the infrastructure manager help to cover those of its costs that are not met by variable (marginal cost) prices.

3.16 There are several possible changes to our approach that could be assessed against an objective of pursuing more open access competition while striking the right balance between the benefits it brings and any detriment to funders. Written responses to the ORC consultation and the discussions that we have subsequently held with stakeholders suggest to us two main options for reform, which we assess against the starting point of the status quo. The remainder of this chapter provides an outline and appraisal of each of these. In this document we ask for stakeholder views on variants based on two forms of options for change, whilst recognising that there are other potential options.

3.17 Under both options for reform:

(a) We would retain the existing NPA test, and the opportunity for open access operators to run existing and potentially new services that pass the test, paying variable track access charges only.

(b) We would create an opportunity for open access applications that fail the NPA test to nonetheless be granted access to the network (subject to various other considerations in the case of competing applications, as per our current approach under the NPA test) in cases where open access operators are able to commit to making a contribution to Network Rail's non-variable costs, via a mark-up on the variable usage charge.

(c) Although this mark-up would be collected by Network Rail, it would also provide some benefit to those parties who lose out as a result of abstraction above the level that is permitted by the NPA test. Given that regulation prevents Network Rail from over-recovering overall, this mark-up would result in other charges or network grant being lower than would have otherwise been the case. This is discussed further in paragraphs 4.20 onwards.

3.18 The two options for reform (Options 2 and 3, which are compared with Option 1, the status quo) differ in the method of calculation of the mark-up:

(a) Under Option 2 an open access operator would, in return for a partial relaxation of the NPA test, pay a mark-up as a contribution to Network Rail's fixed costs that is calculated on the basis of the level of abstraction their services would bring over and above the currently permitted level.

(b) Under Option 3 an open access operator would, in return for a partial relaxation of the NPA test, pay a mark-up calculated in a similar manner to the way that access charges are currently calculated for franchised passenger services and/or similar to the ways in which we envisage these charges evolving in the future on all of its services.

3.19 Under all three options the test would be applied in the case of:

(a) *An open access operator competing with a franchisee* – the most familiar case, whereby the NPA test is used to assess the impact of a proposed new open access service on franchised revenues;

(b) *Franchisee or OAO vs. OAO* – Where an OAO or a franchise operator submits an application for access rights that would see it compete with another OAO we also use the NPA test to offer a form of protection to open access services; and

(c) *Franchisee vs. franchisee (different funders)* – Where a franchise operator submits an application for access rights that would see it compete with another franchise operator with a different funder (accepting that this would be a rare case) we would apply the NPA test in the same fashion as case (a), unless the affected funder expressed no concerns about the application.

(d) *Franchisee vs. franchised (same funder)* – Where a franchise operator submits an application for access rights that would see it compete with another franchise operator with the same funder (accepting that this may also be rare) there could be circumstances where we would apply the test and we would consider whether it would be appropriate to do so.

Option 1 - no change

3.20 Under this option we would retain the two key features of the current market described in the background material in this paper, whereby open access services pay only variable track access charges and are subject to the NPA test, whereby we only grant access to services whose ratio of generative to abstractive revenues is expected to be at least 0.3:1.

Merits of Option 1

Advantages

3.21 The chief advantage of this option is that it has in the past struck a balance between facilitating competition through open access and the potential effects of this on the position of funders and existing operators. The current framework is 'tried and tested' to some extent. Its impact on the position of funders is relatively modest and well known, although risk and uncertainty remain significant issues for all operators.

(a) Open access operators have to make access applications without knowing whether or not these bids will pass the NPA test, and once a service has been launched are fully exposed to shocks to key variables such as overall demand, costs including access charges, and the strength of competition from other firms including franchised TOCs.

(b) Franchised operators have to make bids for long-term franchises with partial – and only partial - protection against similar entry by OAOs[24].

3.22 Whilst the extent of on-rail competition is currently limited, there is some potential for it to increase, albeit slowly, over time even without reform of the type discussed in this document. This may happen as more capacity becomes available (see ‘Other drivers of change’ earlier in this document) or if the governments were to reconsider their approach to passenger service provision and for example reduce the extent to which government contracts for services that could be provided on a commercial basis. Even on the basis of an access policy that retained the NPA test and the current structure of charges for open access operations we would expect to receive a number of open access passenger applications in the future.

Disadvantages

3.23 The chief disadvantage of this option lies in the limitations of the status quo from a competition perspective. Open access currently accounts for a very small proportion of all services, limiting the opportunities for passengers to benefit from head-to-head competition. As summarised in Chapter 2 of this document, we are also taking steps as part of PR13 and more widely to address other barriers to entry by open access, whilst recognising that franchised services will continue to account for the vast majority of passenger services for the foreseeable future. But the NPA test remains, in our view, an important barrier to entry for open access. Under Option 1 this barrier to entry or expansion by OAOs would remain unchanged.

Consideration

3.24 On the basis of all of the above our view is that it would be beneficial to consider alternatives to the status quo. Subject to more detailed consideration of the costs and benefits of options 2 and 3, we are currently minded to reject Option 1.

[24] See, paragraph 2.3 *et seq.* of The Brown Review of the Rail Franchising Programme, December 2012, for a brief discussion of franchise exposure to exogenous revenue risk and of, for example, the ‘cap and collar’ mechanisms that have historically protected franchised revenues.

Q3. What are your views on Option 1? If we were to retain the current NPA test and structure of charges for open access what effect do you think changes to the economics of the railway and to capacity would have on the scope for and levels of open access competition? Do any factors other than those listed above favour (or not favour) Option 1?

Option 2 – a mark-up linked to levels of abstraction

Create a two tier test for open access, allowing more abstractive open access where open access pays a mark-up linked to levels of abstraction

Outline

3.25 Under this option:

(a) We would retain the existing NPA test, and the opportunity for open access operators to run existing and potentially new services that pass the NPA test, paying variable track access charges only.

(b) We would create an opportunity for open access applications that fail the NPA test to nonetheless be granted access to the network (subject to various other considerations in the case of competing applications, as per our current approach under the NPA test) on the basis that the OAO will make a contribution to Network Rail's non-variable costs, via a mark-up on the variable usage charge.

(c) The level of this mark-up should reflect the anticipated additional revenues abstracted by open access above the level that would prevail had the rights in question been awarded on an NPA basis.

(d) Although this mark-up would be collected by Network Rail, it would also provide some benefit to those parties who lose out as a result of abstraction above the level that is permitted by the NPA test.

3.26 Options 2 and 3 in this document are similar in that they both permit abstraction beyond the level permitted by the NPA test subject to the payment of an access charges mark-up but under Option 2 mark-ups would not be set with a view to recovering a proportion of some identified set of costs; and there would be an explicit link between the anticipated level of abstraction and the calculation of mark-ups.

3.27 A key issue is the incentives given to potential OAOs. This option gives additional scope for entry without providing an incentive for additional abstraction per se. As the numerical example in Annex 1 shows, entry at lower ratios of generation to abstraction may be accompanied by higher absolute levels of generated revenue and so a higher permitted absolute level of abstracted revenue but there would be no gain to the OAO beyond a 0.3:1 ratio. Indeed it is likely that incorporation of 100% of the excess abstraction in a mark-up would provide a disincentive for entry because the OAO would make a loss on any variable costs associated with the additional revenue. It is for consideration whether a proportion lower than 100% would be appropriate for that reason.

3.28 We set out a simple worked example below. Further examples are shown in Annex 1.

Option 2 Example

Under our current approach we would not expect to approve applications with ratios of generation to abstraction below 0.3 to 1. By way of an example, an application with forecast generated revenues of exactly £3m p.a. and forecast abstracted revenues of exactly £10m p.a. would be on the very cusp of passing/failing the NPA test. Putting it another way, we would not expect to approve an access application with forecast generation of £3m p.a. unless its forecast abstracted revenues were less than £10m p.a.

Under Option 2 an access application with forecast generation of £3m p.a. and forecast abstraction of £12m p.a. (giving a ratio of generation to abstraction of 0.25) could be accepted provided (if the proportion were 100%) that the applicant agreed to pay an access charge mark-up of £2m p.a. This would be expressed as a unit mark-up derived by dividing £2m by the expected annual units.

3.29 The mark-ups would remain constant in real terms (i.e. indexed by RPI, in line with other access charges) over the initial period for which we approved access rights. The rationale for allowing mark-ups to remain constant in real terms for the period covered by initial access rights (and not, for example, liable to change if this period of access rights spanned more than one charge control period) would be to provide open access operators with a degree of certainty such that they could commit to providing services over the time period spanned by initial access rights.

The merits of Option 2

Advantages

3.30 Option 2 is closely linked to the balance of our statutory duties to promote competition and to have regard to funders' budgets since the access charge mark-ups are directly linked to the increased revenue diversion that is anticipated to result from the greater scope for on-rail competition. The mark-ups would be received by Network Rail rather than funders directly but we would expect funders to benefit through a reduction in their need to fund Network Rail by other means.

3.31 Option 2 provides two broad ways to promote on-rail competition. First, it could enable existing current or prospective open access services that have been configured in order to pass the NPA test to change their stopping patterns so as to include more stops at major stations[25]. Secondly, it could provide potential for entirely new services that would otherwise not be feasible given the constraints imposed by the NPA test.

3.32 It expands the scope for competition without increasing OAOs' incentives to raise the rate of abstraction.

3.33 It approximates to Ramsey principles of efficient pricing by linking the size of the mark-up to the extent to which affected customers would be likely to be diverted to different operators rather than to different modes of transport[26].

Disadvantages

3.34 Funders are unlikely to be indifferent between Option 2 and the status quo. There would be likely to be higher levels of abstraction, both higher levels to which the mark-up is applied and higher levels permitted under the NPA test because of the existence of more newly generated business. Franchisees and funders might not consider that mark-up revenue adequately compensated them for the impacts of lost revenue and additional risk. Moreover, mark-ups calculated under Option 2 would be based on estimates of generation and abstraction at a relatively early stage of the duration of a set of access rights, rather than over their entire lifetime. We do not consider that the latter approach would be practical.

3.35 Under some scenarios open access operators could pay rates of mark-up that are significantly higher than the fixed charges paid by franchisees, but this would reflect the extent of their additional abstraction, and OAOs would not, of course, pay any franchise premium.

3.36 Option 2 has a potential for greater uncertainty for train operators.

(a) While open access operators that would qualify under the existing policy would be in an unchanged position under Option 2, OAOs qualifying only under Option 2 would have to make access applications without knowing the level of access charges (mark-ups) that they would face in the initial access period. They would further face uncertainty at the time of agreeing access rights as to the level of mark-up that they would face in the longer term, once initial access rights had expired. This represents an important

[25] This would also involve payment of the relevant station charge.

[26] Option 2 relates the mark-up to abstraction as a proportion of total passenger demand. The ratio of the change in abstraction to the total demand change (in response to a price or similar change) is equal to the ratio of the cross-elasticity to the total elasticity. That ratio is one minus the ratio of the "super-elasticity" to the total elasticity. As explained in paragraph 3.12, a Ramsey mark-up should be inversely proportional to the super elasticity. Other things being equal, the higher abstraction is, the lower the super-elasticity and the higher the Ramsey mark-up.

disadvantage as a means of promoting competition and is an area where we are particularly interested in stakeholder views.

(b) Franchised operators would face greater long-term uncertainty as to the extent of direct competition that they would face when making bids for long-term franchises. Option 2 could lead to an overall increase in the number of open access services as well as in the number of stations served by open access only. Access charge mark-ups may not fully compensate for the uncertainty associated with the potential for more open access and any additional payments to Network Rail would benefit franchisees directly only to the extent that any loss of revenue resulting from open access competition was recoverable by franchisees.

3.37 Option 2 may not be as simple and transparent to operate in practice as the other options. The process of calculation of the mark-up requires estimation and forecasting and raises issues (outlined in the next chapter of this document) which collectively introduce a non-trivial degree of complexity.

Consideration

3.38 On balance we presently consider that Option 2 balances our various duties more effectively than the other options. It offers scope for increased competition without providing any incentive for an increase in the rate of abstraction above that currently permitted under the NPA test that might adversely affect the funds available to the Secretary of State.

Q4. What are your views on Option 2? Should the mark-up be calculated on the basis of 100% of excess abstraction? Do any factors other than those listed above favour (or not favour) Option 2? What do you think of the feasibility of building a commercial case based on policy as described here? What changes/guarantees/mitigations would be needed to make this work?

Option 3 – a mark-up based on costs

Create a two tier test for open access, allowing more abstractive open access where open access pays a mark-up based on costs

Outline

3.39 Under this option:

(a) We would retain the existing NPA test, and the opportunity for open access operators to run existing and potentially new services that pass the NPA test, paying variable track access charges only.

(b) We would create an opportunity for open access applications that fail the NPA test to nonetheless be granted access to the network (subject to various other considerations in the case of competing applications, as per our current approach under the NPA test) in cases where open access operators are able to commit to making a contribution to Network Rail's non-variable costs, via a mark-up on the variable usage charge.

(c) The starting point for calculating the level of this mark-up would be an estimate of underlying costs – with a charge based on either the FTAC (Option 3A) or an estimate of the avoidable costs of open access (Option 3B).

(d) Although this mark-up would be collected by Network Rail, it would also provide some benefit to those parties who lose out as a result of abstraction above the level that is permitted by the NPA test.

3.40 This option too has the broad purpose of obtaining more of the benefits of on-rail competition whilst offsetting the cost to government. However, the mark-ups imposed on OAOs failing the NPA test would be related to cost rather than to the extent of failure to pass the NPA test.

3.41 We discuss two potential variants of Option 3 below. They involve aligning the charging structure for OAOs failing the NPA test with, in the case of 3A, the charging regime that franchised passenger operators currently face and, in the case of 3B, an estimate of the avoidable costs caused by open access.

3A: FTAC-driven

3.42 A first variant of Option 3 could be where the mark-up that an open access operator would pay if it failed the NPA test but still wished to get access to the network was calculated (see example below) in much the same way as fixed track access charges (FTAC). The underlying rationale behind this variant would be that it would in some respects put open access and franchised operators on a more similar footing than is currently the case.

3.43 Fixed track access charges currently recover the residual of Network Rail's total revenue requirement after forecasting income from all of variable track access charges, network grants, and other single till income[27]. Network Rail allocates the costs to be recovered via the fixed charge to individual franchises using, in most cases, route-based disaggregated cost information but, where such information is not available, costs are allocated using simple allocation indicators such as vehicle mileage[28].

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[27] See, for example, *PR13: Consultation on Fixed Track Access Charges in CP5*, Network Rail, 30 November 2012.

[28] Network Rail has recently consulted on proposals to adjust the methodology for calculating and allocating the fixed charge. We comment on Network Rail's conclusions in our Draft Determinations published in June 2013.

Option 3A illustration

The mark-paid up by open access operators who failed the NPA test could be calculated in a fashion analogous to the way that the fixed charges applying to individual franchises are calculated now. A very simple worked example of this is as follows (assuming here that the all of the costs going into the fixed charge were simply allocated entirely on the basis of train km):

- The current FTAC paid by franchised passenger operators in total is around £900m p.a.
- Total train kms (passenger services only) are around 500m p.a.
- A new open access service that did not comply with the NPA test could obtain access to the network provided that it paid a share of the FTAC proportionate to its incremental use of the network. A (very short) service generating 50,000 train km p.a. would pay a mark-up equal to 0.01% (50k/500m) of the total FTAC, i.e. £90k p.a. initially.

3.44 A significant difference from Option 2 is that, if the NPA test is failed, the mark-up would be calculated on the basis of the entire service, not just that part of abstraction above the test level. That feature illustrates the essential difference between the two options. In both cases an OAO failing the NPA test is given an option to proceed if it pays a mark-up on all its activity. In Option 2 the mark-up is calculated pro rata to the degree of excess abstraction. In Option 3 the mark-up is calculated as a share of an identified part of Network Rail's costs.

3B: More analysis based on cost causation

3.45 The second variant of Option 3 is where mark-ups are calculated based on charges that better reflect the costs caused by open access operation, taking a longer-term view than the current short run marginal cost approach. The aim would be to ensure that an open access operator that failed the NPA test would pay charges that covered its share of all open access avoidable costs, making the charge more reflective of overall costs.

3.46 Under this variant, we could essentially calculate an 'open access specific charge' in the same way as we have recently calculated a 'freight specific charge', on the basis of the costs that Network Rail would have avoided were it not to carry open access. Our analysis for freight was set out in our January 2013 decision document[29] and is discussed further in chapter 16 of our Draft Determinations.

3.47 Given that we are relatively far advanced in the PR13 process, it would not be possible for us to work with Network Rail to identify more clearly the costs associated with carrying open access in time to include

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[29] http://www.rail-reg.gov.uk/pr13/PDF/freight-conclusions-jan-2013.pdf.

any such open access specific charge in our final determination. If we were to pursue this option we would need to consider open access avoidable costs at an early stage of our wider work within CP5 to improve our understanding of Network Rail's costs and the way this is reflected in the structure of charges.

The merits of Option 3

Advantages

3.48 Option 3 also balances our statutory duties to promote competition and to have regard to funders' budgets but the mark-up is not so directly linked to the increased revenue diversion that results from the greater scope for on-rail competition that it provides. It is, however, directly linked to a measure of Network Rail's costs.

3.49 As with Option 2, Option 3 provides two broad ways to promote on-rail competition. Firstly, it could enable existing current or prospective open access services that have been configured in order to pass the NPA test to change their stopping patterns so as to include more stops at major stations. Secondly, it could provide potential for entirely new services that would otherwise not be feasible given the constraints imposed by the NPA test.

3.50 Taken at face value, Option 3 appears to place open access and franchised operators on a more equal footing than is currently the case, since open access currently pays only variable track access charges while franchised operators also pay a fixed track access charge. As a cost-based charge, it would contribute to a move towards more cost reflectivity in access charges generally. Cost-based charges are a familiar feature of railway network access and are consistent with our intention to move towards more cost-reflective charging.

3.51 Option 3 would be relatively simple to implement and open access operators would be able to make access applications with a good deal of certainty over the level of mark-up that they would face if their application failed the NPA test.

Disadvantages

3.52 Option 3 would in some cases allow abstraction at a lower cost to OAOs than Option 2 since at its current level the FTAC on some key routes, including InterCity East Coast, is small relative to the potential impact of highly abstractive services on franchise value. It would put open access on a similar footing with franchises as regards access charges but open access would not be paying franchise premia for the right to operate on profitable routes. As such, Option 3 might have significant impacts on the terms of such franchise agreements and the associated costs to funders.

3.53 The impact would not be the same across franchises (because the relative magnitude of the FTAC and revenue earning potential would differ) or over time (for example if the relationship between network grant and FTAC were to change). It would tend to create more opportunities for open access where fixed track access charges were small relative to revenues. Most of Network Rail's costs are currently recovered through the network grant, with the FTAC only recovering around 17% of the total and variable charges even less. In the longer term, we are keen to see Network Rail recover a greater proportion of its costs through charges and to see the network grant reduced as a proportion of total cost. But until this happens, a share of the FTAC could be relatively low compared to the revenue-earning opportunities that relaxation of the NPA test would introduce. For example, based on a simple calculation whereby the FTAC was allocated entirely based on train km, a single open access service making a 400 mile return trip (i.e. 200 miles each way) per day would pay a share of £400k of the FTAC. This number could be significantly lower than the revenue abstracted by an open access service stopping at a major station such as Leeds. Equally, we would need to consider what level of mark-up the open access segment could bear (as required by the Access and Management Regulations) and this will not necessarily be the amount generated by this formula. We would therefore need to consider what would be an appropriate level of mark-up.

3.54 There is some uncertainty over the level of mark-up that would apply after the initial period and, perhaps to an even greater extent than under Option 2, it may not be the case that additional payments by OAOs compensate those affected by the entry. Under this option, we would allow greater scope for more abstractive open access and we would balance this by ensuring that such open access operations paid a greater contribution to Network Rail's revenue requirement than currently. In this way we would still be balancing our statutory duties. But the precise distributional effects of such a change would be difficult to predict.

Consideration

3.55 Option 3 has a number of advantages but we are concerned that its effects in practice would not adequately reflect the different extents to which different incidences of access may cause problems for funders and might create undesirable incentives for OAOs to target a limited number of profitable routes on a highly abstractive basis.

Q5. What are your views on Option 3? What do you think of the feasibility of building a commercial case based on policy as described here? Are there any key practical or other issues that we have missed?

Compliance with the Access and Management Regulations

3.56 We consider that the proposed mark-ups to be levied under both Options 2 and 3 comply with the charging rules set out in paragraph 2 of Schedule 3 of the Access and Management Regulations.

3.57 Both Options 2 and 3 are designed to expand the scope for competition, which promotes efficiency, without affecting any activity which can presently take place. In each case, the mark-up is concentrated on those activities where customers are more likely to move between rail operators rather than (inefficiently) to other modes of transport. We will approve the principles underpinning the levying of any mark-up as part of our final determinations for CP5. The level of mark-ups payable by any open access operators will be determined as and when they apply for access under the new policy. The mark-up will be transparent as the rules for calculating and allocating the mark-up will be clearly prescribed in our policy and in Network Rail's network statement. Mark-ups will be levied on a non-discriminatory basis. Charges for open access operators will apply consistently for those which pass or fail the NPA test. Differences in mark-ups paid by open access operators will be based on clear differences in revenue earning potential. The options are intended to ensure optimum competitiveness by improving on-rail competition and equally should not have any negative impact on the ability of rail to compete with other modes.

3.58 The levying of mark-ups under either Option 2 or 3 should not exclude open access operators from the use of infrastructure. All open access operators (current or future) will retain the ability to apply for access to the network on the basis of the current NPA test and hence continue to pay only variable charges. Any open access operators which opt to pay a mark-up will do so in return for the opportunity to earn additional revenues which should balance the need for them to pay the additional charge. Any mark-up levied will respect the productivity increases achieved by applicants as the level of mark-ups will remain constant in real terms.

3.59 There is an issue about whether Network Rail will over-recover any charges paid by open access operators because, unlike all other charges which are set at the beginning of the control period, they cannot be factored into Network Rail's revenue requirement even by way of broad estimate because we do not know how many operators will seek access rights under the proposed policy. However, bearing in mind the comparatively small amounts of money likely to be involved in CP5, we consider this issue can be dealt with as discussed in chapter 4, for example by taking any charges paid by open access operators to Network Rail into account during the next periodic review.

Existing open access operators and processes

3.60 It is important to note that none of the options set out in this document would alter the position of existing open access operators, who would retain the access rights they have on the current basis, thereby not undermining any existing business models. Equally, we would envisage open access and other operators continuing to be able to apply for access rights under the current basis, i.e. the NPA test. But if existing open access operators wish to apply for access rights under any changed policy, with a view to these superseding their existing access rights, they would be free to do so.

3.61 It is also important to recognise that, given the other barriers which exist to open access and especially the scope of the franchise arrangements, we do not expect any of the changes we outline in this document to produce a step change in the scope of open access operations in the near future. Nevertheless, we consider change of the sort outlined here to be an important step towards facilitating more open access over the longer term.

3.62 None of the options contained in this document would result in a significant change to our processes for assessing applications. In particular:

(a) They would not signify a move to an approach that would be more mechanistic or rigid than our current approach to assessing access applications. All would be based on the same set of analytical techniques and exercise of judgement. We would continue to allocate capacity on the GB rail network in accordance with our statutory duties and other published policies to ensure that it is used in the public interest. To this end, in considering applications for track access contracts or amendments and deciding whether, and on what terms, to approve access, we would continue to focus on:

(i) the implications for the efficient use of network capacity over time;

(ii) actual and potential impacts on third parties, including any adverse financial impacts;

(iii) any areas of disagreement;

(iv) the extent to which agreed applications require focused scrutiny in line with our published criteria; and

(v) consistency with our decisions in any access charges review;

(b) Competing applications for capacity would continue to be assessed based on a full cost-benefit analysis of all 'compliant' bids. Our economic assessment would generally follow a two-part process, which first of all applies the NPA test, and then a more detailed cost-benefit analysis to all applications that either passed the NPA test or failed it but where the operator was prepared to pay the additional charge. We would also expect the applicant to provide a detailed business case in support of its track access application to demonstrate, amongst other things, that the operator's plans are financially viable;

(c) We would also continue to review the expected performance impact of any new access proposals to ensure that any approval would be consistent with our statutory duties and that the impact of the services would not adversely affect the overall resilience, integrity and operational performance of the network or parts of it; and

(d) We would continue to use transport appraisal methodology (such as WebTAG) in assessing competing passenger and freight services to estimate freight user benefits in any cost benefit analysis where freight may be materially affected and in complex cases with alternative uses of capacity.

4. Options 2 and 3 – practical issues

Introduction

4.1 This chapter deals with more detailed and practical issues involved in assessing open access applications and in options for granting applications with higher abstraction rates provided that a mark-up is paid. It describes the existing process for applications, including the NPA test, and then discusses:

(a) Procedures and calculation of mark-ups under Options 2 and 3;

(b) Treatment of Network Rail's revenue from open access mark-ups;

(c) The possibility of an initial discount to the mark-ups; and

(d) Review of mark-ups after the initial access period.

Method of Assessment

Existing process

4.2 The following is a brief description of how open access operators currently obtain access rights.

a) *Engagement with Network Rail*: Before approaching ORR with a track access application, an open access operator should engage with Network Rail to discuss its plans with a view to establishing the availability of capacity and, where routes on which it wishes to operate are already busy, the likely impact of running these additional services on the performance of existing services. At an even earlier stage, Network Rail is likely to have engaged in discussions with a potential new open access operator. Such a company needs to demonstrate to Network Rail that it is a company with realistic prospects of being able to operate train services, should it subsequently be granted track access rights. If Network Rail is able to identify available capacity, has no other operator seeking the same capacity, and is content that the likely impact on performance is acceptable, Network Rail should be in a position to support the open access operator in an agreed application to ORR for track access rights. If not, and assuming that the open access operator itself believes that capacity is available, it will have to submit an application not supported by Network Rail.

b) *Industry consultation*: An industry consultation of existing operators using the routes, funders and other key stakeholders is undertaken. Where Network Rail has agreed to support the application, it will undertake the consultation. If it does not support the application it may still, at the operator's request, undertake the consultation. Otherwise the consultation will be undertaken either by the open access operator itself or by ORR upon formal receipt of the application for track access rights. Amongst other things, this consultation gives those who might be financially adversely affected by the arrival of new competing services the opportunity to advise ORR (on a confidential basis) of the expected extent of that impact, providing any evidence available to support their views – which ORR will take into account in its assessment of the application.

c) *Development of business plans*: Although a company which has identified network capacity that it wishes to use to run a new open access service will already have provided Network Rail with some financial information, as noted above, it must provide a more detailed business case to ORR in support of its track access application. The business case demonstrates, amongst other things, that the operator's plans are financially viable and that it will be in a position to make use of the capacity allocated. In practice, applicants also develop their own views on their application's compliance with the NPA test at this stage.

d) *ORR's financial analysis*: In addition to its consideration of other issues, including capacity availability and performance, ORR undertakes an economic assessment. In instances where there are two or more competing applications that are reliant on the same capacity, ORR's financial assessment follows a two-part process, a) applying the NPA test to all applications, and then b) a more detailed cost-benefit analysis of all applications that pass the NPA test. In the simpler case, where we are dealing with only one application, we apply the NPA test only.

e) *The NPA test*: Under the NPA test, we will only consider a service to be not primarily abstractive – and therefore allow it access - if the ratio of generated (i.e. new to rail business) revenues to abstracted (from existing train operators) revenues is at least 0.3 to 1. For example, a service with forecast revenues of (say) £13m must generate at least £3m of these revenues, abstracting no more than the remaining £10m. New services tend to generate more business over a period of time, primarily as more people who previously did not use rail become aware of the new services. We allow for this 'ramp up' effect of new services by applying the NPA test to expected revenues one to two years after their introduction.

f) A successful applicant will obtain track access rights to quantum, and other characteristics as appropriate, for an agreed period of time, normally at least five years, in accordance with our long term track access contracts policy. Open access operators currently pay VTACs only. These are set once every five years following a periodic review of Network Rail's costs and charges.

4.3 We do not apply the NPA test when an open access operator proposes to extend the period for which it holds track access rights unless it wishes to increase the number of services operated or vary its existing rights, say to call at an additional station. We then apply the NPA test in order to assess the expected impact of changes in service patterns on revenues.

4.4 We also apply the NPA test when a franchised operator proposes to run new or additional services that will compete with existing open access services and we focus on whether the effect of the new franchised services is likely to put the open access operator out of business, thereby reducing competition.

The NPA test

4.5 The NPA test involves making an estimate of the ratio of generation to abstraction based on forecasts of each at a point in time 1-2 years after service launch. This period is used to allow for the fact that new services take some time to achieve full demand. The forecasts are made using several sources of quantitative evidence (e.g. PDFH[30], MOIRA[31], companies' own estimates, and past evidence) and taking into account other factors including the degree of confidence that we can place on the various modelling results.

4.6 The box below describes the five stage process presently used to conduct the NPA test and arrive at a single point estimate of the ratio of generation to abstraction.

Stages of the NPA test

1 - Initial modelling carried out using standard industry models of growth and patterns of changes in demand, notably the passenger demand forecasting handbook (PDFH) and MOIRA software. At this stage we arrive at an initial broad estimate of the likely level of revenue abstraction and generation. Where appropriate and practical we draw on previous modelling work that has been used to inform earlier decisions;

2 - Review of initial modelling based on information provided by key stakeholders including the operator proposing the new competing services; incumbent operators potentially affected by the new competing services; the DfT, Transport Scotland and Welsh Assembly Government; and any other interested parties, such as Transport for London, PTEs, Passenger Focus and London Travelwatch.

3 - The use of any readily available benchmarking and survey information from any comparable situations elsewhere on the network and, where available, from relevant independent surveys in order to refine the estimates produced at earlier stages.

[30] The Passenger Demand Forecasting Handbook (PDFH) summarises knowledge of the effects of service quality, fares and external factors on rail passenger demand.

[31] MOIRA is software used by l UK passenger train operating companies to analyse timetable changes.

4 – An estimate of the likely impact that the proposed new services would have one to two years[32] after their introduction made on the basis of available relevant information, including information from the applicant, the franchising authority and incumbent operators.

5 - An analysis of other relevant factors, including:

(i) the degree of confidence that can be placed in the various estimates derived in earlier stages (for example, whether all or most of the evidence points towards a level of abstraction falling within a narrow range, or whether there is considerable uncertainty about the likely revenue effect);

(ii) whether the levels of abstraction and generation are relatively evenly spread across the flows under consideration; and

(iii) where a new service competes with an open access service, whether this would cause the open access operator to withdraw from the market, reducing competition on the network.

Impact of Options 2 and 3 on our processes

4.7 Here we briefly describe how we envisage Options 2 and 3 working in process terms.

4.8 Both options would permit a partial relaxation of the NPA test in return for payment of a mark-up by the open access operator. They would operate on a procedure similar to the present one set out in paragraph 4.2 above:

- Steps (a) and (b) above would remain unchanged. Consultation with Network Rail and the rest of the industry would remain key.
- At step (c), applicants would have to express an interest in paying a mark-up should their application fail the NPA test.
- At steps (d) and (e):
    - We currently apply the NPA test to all applications, and then, in the case of competing bids (see step (d)) apply a further assessment to bids that have passed the NPA test (only).
    - Under Options 2 and 3, we would apply the further assessment of competing bids to both:
        - All bids that had passed the NPA test; and

[32]This is to identify material impacts that would not occur immediately on introduction of the new competing services. The likely effect would be a reduction in the estimated proportion of revenue abstracted from existing services, because people who previously did not use rail tend to react more slowly. This stage may also consider circumstances in which abstraction could increase (for example, if the operator of the new services were to change its pricing policy). Where relevant we would expect to use ramp-up factors taken from the latest version of PDFH.

        - All bids that did not pass the NPA test but where applicants had expressed a willingness to pay a mark-up.
    - Where access is to be granted to a bid that had not passed the NPA test a mark-up would be calculated
- Before being able to offer services, any OAO whose application had been successful on the basis of paying a mark-up, would have an opportunity to 'take or leave' the mark-up as proposed by ORR and Network Rail. If this offer was rejected, we would consider alternative uses for the capacity.

Q6. Do you agree that the above process would be appropriate under Options 2 and 3? If not, what changes would you make and why?

Setting initial mark-ups

4.9 Different variations of the options would involve different calculation methods for the mark-up.

- Under Option 2 estimated abstracted revenue in excess of three and a third times expected generated revenue would be divided by expected train km to derive a mark-up.
- Under Option 3A the mark-up would be derived from the calculation of the fixed charge paid by franchise operators.
- Under Option 3B the mark-up would be derived from estimates of the avoidable costs of open access operators.

4.10 In all cases we would need to consult, with an explanation of how charges would be calculated, before such a policy could be operational.

4.11 There are a couple of additional practical questions which arise under the Access and Management Regulations. The first is who should be responsible for undertaking the work to assess the appropriate level of mark-up. Regulation 12(1) states that ORR must establish the 'charging framework' while Regulation 12(2) states that the infrastructure manager must 'determine the fees to be charged for the use of the infrastructure in accordance with the charging framework, the specific charging rules and the principles and the exceptions set out in Schedule 3'. We therefore think that it is our responsibility to set the principles, but that we should be asking Network Rail to play a key role in calculations and setting the proposed level of charge, although we would continue to carry out those calculations that would be necessary to apply the NPA test, and hence also play a key role in setting mark-ups under Option 2 (although Network Rail would carry out all of the indexing for inflation and so on). This would be less true under Option 3, where Network Rail would be able to take the lead. We intend to work closely with Network Rail in developing the charging work and will liaise with them accordingly. This is consistent with the approach we have taken to other charges.

4.12 The second issue is that, in terms of our approval role, the Access and Management Regulations provide that the infrastructure manager may levy a mark-up *"with the approval of [ORR] under the access charges review"*. Bearing in mind the timescales, we will not be able to approve the actual level of any mark-up paid by OAOs as part of our PR13 final determination. What we propose to do, however, is to set out the principles of our new proposed policy (i.e. the 'charging framework') in our PR13 final determination and make it clear in our final determination that we will ultimately approve the level of any future charge. We are comfortable that this satisfies the test for the mark-up to be approved 'under the access charges review'.

Abstraction and generation forecasts

4.13 Under both options 2 and 3 the existence of the mark-up would depend on forecasts of generation and abstraction. Under Option 2 the size of the mark-up would depend on the precise ratio of generation to abstraction associated with an application. But a ratio alone would not be sufficient – in order to calculate the financial significance of abstraction we would need to express this ratio in terms of absolute numbers.

4.14 We do not see any practical alternative to setting mark-ups on the basis of forecast volumes, rather than actual data. Whilst ticket sales data for all operators are readily available, the difficulties inherent in determining ex post exactly what, for example, franchised operators' revenues would have been without open access entry are such that charging based on actual volumes would provide no guarantee of greater accuracy over a forecast-based method. Fixing charges in advance, at least for a certain period of time, would provide operators with more certainty.

4.15 We assume that focusing on forecast abstraction at a fixed time period after service launch would be superior to, for example, attempting to base mark-ups for each year on forecasts of abstraction and generation for individual years. Such an approach would, in our view, both be administratively burdensome and add little gain in accuracy.

4.16 It would be possible to base the test on a different time period rather than at the 1-2 years used in our current NPA test. The logic behind the use of this date is that it represents a roughly optimal point in the trade-off between certainty (which tends to favour focusing on short-term forecasts) and properly taking into account the full effects of the introduction of a service, since the generated demand for a new service would not be realised immediately.

4.17 But under Option 2 the choice of which years' estimates to focus on would be particularly significant because, assuming that aggregate revenues are increasing over time (in line with passenger numbers and price inflation), a focus on later time periods might lead to higher estimates of absolute amounts of abstraction, and hence of the cost contribution required from open access. We have assumed that, on balance, the best approach would be to focus on 1-2 years, given that the current formulation of the NPA test uses this time horizon. We would expect this focus to produce a number considerably lower than the likely absolute value of abstraction in (for example) the year leading up to 5 years after service launch, but also an amount that, given that passenger volumes can take a while to adjust, would be high relative to open access' first year revenues.

Errors in abstraction and generation forecasts

4.18 All forecasts are subject to error and it is possible that evidence available a few years after the start of open access operation might suggest that (under either option) the percentage of generation relative to abstraction was not below 30% or (under Option 2) the percentage of abstraction was sufficiently different that a mark-up of a different size would have been calculated. Such situations might result in different open access operators whose circumstances later turn out to be similar paying different access charge mark-ups (or one paying a mark-up and the other not) because the forecasts of their levels of abstraction and generation differed. This could raise concerns as to whether the charges were discriminatory.

4.19 It may therefore be appropriate for OAOs to be able to appeal against the imposition (or, under option 2, size) of a mark-up if information subsequently available pertaining to years 1-2 suggests that there would have been a significantly different outcome had the circumstances been correctly forecast. As noted above, however, degrees of abstraction and generation are not known with certainty even ex post and there is value in charges remaining stable so, if such an appeal is possible, it should only succeed on the basis of significant evidence of forecast error.

Q7. Do you agree with the approach to estimating mark-ups, particularly the use of generation and abstraction forecasts to decide whether mark-ups should be applied, and, in the case of Option 2, the size of the mark-up? Should OAOs be able to appeal the mark-up in the light of subsequent data?

Dealing with over-recovery by Network Rail

4.20 Any mark-ups paid by open access operators to Network Rail would lead to an over-recovery of costs, on its part, i.e., other things being equal, it would earn revenues above its forecast revenue requirement. We would not envisage this policy as an important means to create new incentives on Network Rail (i.e. beyond the volume incentives that currently exist) by allowing it to over-recover its costs from additional payments from mark-ups. We therefore consider ways in which this over-recovery can be addressed bearing in mind the possibility that the mark-up payments might compensate those affected by the additional abstraction.

4.21 We have considered whether any over-recovery by Network Rail should be returned to the industry via a general rebate or via a rebate to affected operators only. This would be done through a mechanism in

Schedule 7 of passenger track access agreements. This would have the benefit of returning additional revenues directly, in advance of the next periodic review.

4.22 However, it would also have certain important disadvantages. The rebate would be returned in the first place to franchised operators and may not be returned to Government until re-franchising, depending on the terms of each franchise agreement. It would use the rebate mechanism in Schedule 7 for a purpose for which it was not originally intended. Also, such a rebate mechanism could require use of the Section 22 process to update track access agreements. This could be time-consuming and labour-intensive for all parties.

4.23 We are therefore inclined to the view that any over-recovery by Network Rail should simply be taken into account at the next periodic review. It may also be the case that there would be an offsetting impact on the volume incentive, a mechanism to incentivise Network Rail to increase traffic which is not necessary when it is in receipt of mark-ups over and above its variable costs. If open access operators paying mark-ups are excluded from calculation of Network Rail's volume incentive, as is the case for traffic paying other mark-ups, there would in any case be a counter-balancing loss of revenue that would make it unlikely that there would be significant over-recovery. Moreover, funders would benefit from reduced liability for payments under the volume incentive. Network Rail currently receives more revenue from open access operators than was anticipated in PR08. This revenue is shown in its regulatory accounts as part of its single till income (from sources other than franchised passenger operators). Any additional revenue Network Rail collected through mark-ups would also be shown as single till revenue in the year that it occurred.

4.24 This method would provide certainty to Network Rail and government that over-recovery would be addressed for all relevant new open access services at the next periodic review, using existing methods (primarily capitalised financing) for dealing with timing differences. It would be easy to implement, through calculations carried out anyway for single till income, and would not involve potentially complex changes to track access agreements.

Q8. Do you agree that no mechanism should be introduced to address Network Rail's additional revenue through mark-ups? If not, what mechanism should be used?

Initial discounts

4.25 A further issue to consider is whether or not initial mark-ups should take account of the ability of open access to pay in the first year(s) of operation of new services. Open access operators tend to operate on relatively tight financial margins, which may affect their ability to pay the mark-up before incremental revenue has been fully realised.

4.26 We have considered an initial mark-up free period for operators but we are reluctant to include such a provision given that both intuition and the results of modelling that we have carried out suggest that the initial rate of increase for abstracted (as opposed to generated) revenues is relatively large. Abstracted revenues would form the large majority of revenues under Option 2 or 3. Even if the NPA test is passed abstraction can account for up to 77%[33] of open access revenue and the proportion would be likely to be higher under either Option 2 or Option 3.

Q9. Do you consider that, under any of the options considered in this document, the profile of mark-up payments should be tailored so as to address concerns over the ability of open access operators to pay in the early years of new services?

Mark-ups beyond the period covered by initial access rights

4.27 The previous sections describe a means of calculating an initial mark-up. But it would be inappropriate, given our duties and the approach that we take to calculating other charges, for these charges to remain constant (at least in nominal terms) indefinitely. The access charges that are currently levied by Network Rail change over time in line with changes to its costs and our charging policies, as well as general inflation.

4.28 Consistent with other access charges, we assume in this document that initial mark-ups would increase in line with RPI during the initial period for which we approved access rights. This would have the effect of fixing charges in real terms. However, we would not envisage being able to provide open access operators with the same level of certainty over future charges beyond the time period covering their initial access rights or, if earlier, the next periodic review. Such an approach would be inconsistent with our general approach to access applications and could be inconsistent with the need to balance our statutory duties.

4.29 Rather, we would consider it important to signal how, other than through indexation as described above, we would expect these charges to evolve over time, and in particular how we would expect to review these charges (such as part of a future periodic review). We appreciate the importance of certainty of this kind to operators considering a long-term commitment to the market, for example by investing in rolling stock.

4.30 In general, we consider that there are two scenarios that might make it appropriate to change the real level of mark-ups, namely:

[33] The NPA test sets a limit of 0.3:1 for the ratio of generation to abstraction. The ratio of abstraction to revenue at that point is 100:130, which is 77%.

(a) changes in abstraction; or

(b) under option 3, where the mark-up depends on Network Rail’s costs, changes in those costs, assessed through a periodic or interim review.

Q10 Does the review of mark-ups at periodic reviews cause problems for OAOs’ planning of their operations?

Annex 1: Worked Examples for Option 2

1. This Annex sets out some high level worked examples. These examples illustrate how mark-ups would be calculated under Option 2 but omit other issues, such as the cost implications associated with different stopping patterns.

2. Figure 1 takes a hypothetical 'West Yorkshire - Leeds' application as its starting point (i.e. an open access service connecting Yorkshire cities including Leeds with London) and compares it with a less abstractive example, labelled ''West Yorkshire - other'. The services in this example have apparent similarities to Grand Central's West Yorkshire service[34], which currently, compliant with the NPA test, connects various destinations in Yorkshire with London Kings Cross station, but the figures used are hypothetical and purely illustrative, and are chosen for ease of exposition.

3. The example has been constructed as follows:

(a) the 'other' service is not primarily abstractive, with a generation to abstraction ratio of 0.3 to 1; and

(b) including Leeds as an extra stop would, relative to the other service, have a small generative as well as a large abstractive effect.

4. Under Option 2, we would allow the Leeds service to run provided that open access paid a mark-up proportionate to the excess of abstracted revenues over the level permitted by the NPA test (shown at step (H)). Figure 1 shows that, provided the Leeds service had a generative effect, the additional revenue available to open access over and above the NPA service shown here (net of access mark-ups) would be equal to the sum of the additional generation provided by the extra Leeds service (£0.15m in this example) and the additional permitted abstraction brought about as a result of this generation (i.e. £0.15m/0.3 = £0.5m) – so in total £650,000 p.a. in this case, 13/3 times the additional generation.

[34] http://www.grandcentralrail.com/tickets-timetables/routes/.

Figure 1 – Simple example, impact of mark-ups –

		W Yorks Leeds	W Yorks Other	Difference
	Revenue (£m)			
A	Generated	1.15	1.00	0.15
B	Abstracted	11.50	3.33	8.17
C=A+B	Total	12.65	4.33	8.32
ratio, generation to abstraction		0.10	0.30	
	NPA test			
D	Ratio - permitted	0.30	0.30	
E=A/D	Permitted abstraction (£m)	3.83	3.33	0.50
F = B-E	Abstraction: actual - permitted	7.67	0.00	7.67
	Impact of access charges			
G	Mark-up adjustment factor	1.0	1.0	
*H=(B-E)*G*	Access charges markup (£m)	7.67	0.00	
I=C-H	Total revenue less markup (£m)	4.98	4.33	0.65

5. Figures 2-4 below give further examples and show how the mark-up varies with additional generation and abstraction. They each show five cases where generation or abstraction is varied in such a way as to take the NPA test value (i.e. the ratio of generation to abstraction) below 0.3 to 1.

Figure 2: Mark-up with less generated revenue

		A. Flex level of generation only				
	Revenue (£m)	I	II	III	IV	V
A	Generated	3.00	2.50	2.00	1.50	1.00
B	Abstracted	10.00	10.00	10.00	10.00	10.00
C=A+B	Total	13.00	12.50	12.00	11.50	11.00
ratio, generation to abstraction (A/B)		0.30	0.25	0.20	0.15	0.10
% of revenue that's generated (A/C)		23%	20%	17%	13%	9%
	NPA test					
D	Ratio - permitted	0.30	0.30	0.30	0.30	0.30
E=A/D	Permitted abstraction (£m)	10.00	8.33	6.67	5.00	3.33
F = B-E	Abstraction: actual - permitted	0.00	1.67	3.33	5.00	6.67
	Impact of access charges					
*G=(B-E)*F*	Mark-up adjustment factor	100%	100%	100%	100%	100%
*H=F*G*	Access charges markup (£m)	0.00	1.67	3.33	5.00	6.67
I=C-H	Total revenue less markup (£m)	13.00	10.83	8.67	6.50	4.33

Figure 3: Mark-up with more abstraction

		I	II	III	IV	V
		B. Flex level of abstraction only				
	Revenue (£m)	**I**	**II**	**III**	**IV**	**V**
A	Generated	3.00	3.00	3.00	3.00	3.00
B	Abstracted	10.00	11.00	12.00	13.00	14.00
C=A+B	Total	13.00	14.00	15.00	16.00	17.00
ratio, generation to abstraction		0.30	0.27	0.25	0.23	0.21
% of revenue that's generated (A/C)		23%	21%	20%	19%	18%
	NPA test					
D	Ratio - permitted	0.30	0.30	0.30	0.30	0.30
E=A/D	Permitted abstraction (£m)	10.00	10.00	10.00	10.00	10.00
F = B-E	Abstraction: actual - permitted	0.00	1.00	2.00	3.00	4.00
	Impact of access charges					
*G=(B-E)*F*	Mark-up adjustment factor	100%	100%	100%	100%	100%
*H=F*G*	Access charges markup (£m)	0.00	1.00	2.00	3.00	4.00
I=C-H	Total revenue less markup (£m)	13.00	13.00	13.00	13.00	13.00

Figure 4: Mark-up with more generation and abstraction

		I	II	III	IV	V
		C. Flex generation and abstraction				
	Revenue (£m)	**I**	**II**	**III**	**IV**	**V**
A	Generated	3.00	3.05	3.10	3.15	3.20
B	Abstracted	10.00	11.00	12.00	13.00	14.00
C=A+B	Total	13.00	14.05	15.10	16.15	17.20
ratio, generation to abstraction		0.30	0.28	0.26	0.24	0.23
% of revenue that's generated (A/C)		23%	22%	21%	20%	19%
	NPA test					
D	Ratio - permitted	0.30	0.30	0.30	0.30	0.30
E=A/D	Permitted abstraction (£m)	10.00	10.17	10.33	10.50	10.67
F = B-E	Abstraction: actual - permitted	0.00	0.83	1.67	2.50	3.33
	Impact of access charges					
*G=(B-E)*F*	Mark-up adjustment factor	100%	100%	100%	100%	100%
*H=F*G*	Access charges markup (£m)	0.00	0.83	1.67	2.50	3.33
I=C-H	Total revenue less markup (£m)	13.00	13.22	13.43	13.65	13.87

Annex 2: Consultation questions

1. In this document we consult on a range of issues and options that offer increased potential for open access services during CP5 (i.e. 1 April 2014 –31 March 2019) and beyond. We welcome stakeholders' views on all of the options and issues described in this document but are particularly interested in two aspects.

(a) The ultimate impact of the changes that we consider here will depend crucially on the ability of train operators to put forward commercial propositions based on any new framework. A key aim, therefore, of this document is to get stakeholder views on whether and how our proposals would enable them to put forward new commercially viable open access propositions. In particular, the options for change discussed in this document involve an environment whereby open access operators would face less certainty than is currently the case. Stakeholder views on the significance of this issue and how it could be mitigated would be appreciated.

(b) We need to balance our statutory duty to promote competition with our other statutory duties, including to have regard to the funds available to the Secretary of State and Scottish Ministers. A second key aim of this document is to hear views on the impact our proposals, and any resulting increase in open access, would have on franchises and franchise values and how we might respond to any such impact.

2. The following questions were posed in the text of the document.

Q1- Do you agree that we have identified the key barriers to open access competition? Do you consider that the steps we are taking will help to address these barriers or that there are other actions we should be taking? Do you agree that, given the plans for other work outlined above, the remaining barriers imposed by the NPA test are important?

Q2 - What implications do you think that industry developments such as ERTMS, electrification and changes in EU law could have for our approach to on-rail competition? Are there other developments that could have an impact on our approach?-

Q3. What are your views on Option 1? If we were to retain the current NPA test and structure of charges for open access what effect do you think changes to the economics of the railway and to

capacity would have on the scope for and levels of open access competition? Do any factors other than those listed above favour (or not favour) Option 1?

Q4. What are your views on Option 2? Should the mark-up be calculated on the basis of 100% of excess abstraction? Do any factors other than those listed above favour (or not favour) Option 2? What do you think of the feasibility of building a commercial case based on policy as described here? What changes/guarantees/mitigations would be needed to make this work?

Q5. What are your views on Option 3? What do you think of the feasibility of building a commercial case based on policy as described here? Are there any key practical or other issues that we have missed?

Q6 Do you agree that the process described would be appropriate under Options 2 and 3? If not, what changes would you make and why?

Q7. Do you agree with the approach to estimating mark-ups, particularly the use of generation and abstraction forecasts to decide whether mark-ups should be applied and, in the case of Option 2, the size of the mark-up? Should OAOs be able to appeal the mark-up in the light of subsequent data?

Q8. Do you agree that no mechanism should be introduced to address Network Rail's additional revenue through mark-ups? If not, what mechanism should be used?

Q9 Do you consider that, under any of the options considered in this document, the profile of mark-up payments should be tailored so as to address concerns over the ability of open access operators to pay in the early years of new services?

Q10 Does the review of mark-ups at periodic reviews cause problems for OAOs' planning of their operations?