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Open letter

Dear colleague

PR13: capacity charge and alternative RFOA proposal

1. This letter expands on the discussion of the capacity charge in chapter 16 of our draft determination of Network Rail's outputs and funding and, in particular, on the proposal put forward by the Rail Freight Operators' Association (RFOA). The RFOA's proposal was aimed at the freight sector only, but in this letter we consider variations of the proposal for all passenger and freight operators. **Please note, therefore, that this letter is relevant to all operators and their funders, and not just to freight**.

2. In our draft determination we said we would either implement capacity charge rates using the same rates as in CP4 uplifted for inflation or use rates newly calculated for CP5 but on the basis of an alternative proposal put forward by the RFOA[1] [2]. The purpose of this letter is to explain the choices in more detail, including through the use of options and worked examples, to ensure that consultees are clear about the implications in terms of the impact on incentives and on different groups. That will allow them to make well informed responses to us by 4 September, the closing date of the draft determination consultation, which in turn will assist us in making our decision.

3. The rest of this letter is structured as follows:

   - background and RFOA proposal;
   - variants;
   - options; and
   - next steps.

[1] Periodic review 2013: Draft determination of Network Rail's outputs and funding for 2014-19, June 2012, paragraphs 16.110 to 16.117. This can be found at: www.rail-reg.gov.uk/pr13/consultations/draft-determination.php

[2] We have published the RFOA letter at http://www.rail-reg.gov.uk/pr13/PDF/freight-capacity-charge-2013-04-24.pdf

Background & the RFOA proposal

The capacity charge

4. The capacity charge is a charge set to recover the costs directly incurred by Network Rail as a result of Schedule 8 payments that vary with traffic. It therefore has the effect of compensating Network Rail for the estimated additional Schedule 8 performance costs associated with accommodating extra traffic on the network.

5. Network Rail and its consultants, Arup, have recalculated the capacity charge rates as part of PR13 (the “Arup rates”). Also as part of PR13, ORR and Network Rail commissioned Halcrow to update the Schedule 8 payment rates and benchmarks so they reflect the most up to date evidence. The changes to Schedule 8 payment rates, as well as other factors, feed into the revised capacity charges.

6. In our draft determination, we recognised that the pattern of use of the network has changed since the capacity charge was originally introduced. We identified that we are concerned that further work is needed to establish whether the capacity charge is the best way fully to reflect the value of capacity or the costs generated in its allocation and usage. As part of our major review of charges in CP6, we are planning an extensive review of the way that charges reflect cost and in doing so send signals for efficient allocation, use and expansion of capacity. We may therefore substantially change the design or role of capacity charges in future.

7. We also recognised that the changes in capacity charge resulting from the Arup review were very material and accepted that it is undesirable for track access charges to fluctuate significantly from one periodic review to the next from the perspective of industry investment and planning.

8. For those reasons, we concluded in our draft determination that we would not implement the recalibrated capacity charges as part of PR13. We would instead either implement an alternative proposal put forward by the RFOA (possibly applying it also to open access passenger operators and/or franchise passenger operators, having regard to their views on this), or approve capacity charge rates that have been calculated using the methodology established in CP4, uprated for inflation.

RFOA proposal

9. In its letter to us of 24 April 2013, the RFOA proposed that the method of calculating the cost of the marginal impact of traffic could be used as set out and explained in Network Rail’s capacity charge conclusions document (resulting from the Arup review). However, the RFOA proposed that the actual charge for freight would be levied on an incremental basis based on a comparison between the number of train miles actually operated and an agreed baseline number of freight train miles: the RFOA proposed that the baseline could be the value used to calculate the Schedule 8 benchmarks. This comparison would then be used to calculate the actual capacity charge in the form of a ‘wash-up’ carried out periodically. This would have the result that the effective charge

applied to the freight train miles of each operator would not be the charge calculated on the basis of the marginal impact but that figure multiplied by the ratio of freight train miles in excess of the baseline to actual train miles[3]. Worked examples are shown in a separate excel file being distributed with this letter.

Incentive properties

10. It is important that the charging regime in CP5 reflects our charging objectives and in doing so provides appropriate incentives to both Network Rail and operators (and, by extension, funders).

11. A major advantage of the RFOA proposal is that, by using the newly calculated, higher, marginal capacity charge rates, it should in principle neutralise any incentive that Network Rail would have under the lower CP4 rates to resist increases in the volume of traffic. This is because Network Rail would be fully compensated for increases in its reactive delay-related performance regime costs in the event of traffic volumes increasing. The disincentive to Network Rail is an important disadvantage of the option of retaining CP4 capacity charge rates.

12. However, while the RFOA proposal would offset Network Rail's additional Schedule 8 costs from increases in traffic above the baseline, Network Rail could potentially benefit where traffic is lower than the baseline level because lower performance payments associated with reduced traffic would not be associated with lower capacity charge revenue. One way of addressing this perverse incentive would be to set the traffic baseline well below the expected traffic volume so that the probability of traffic being below the baseline was small. This would also achieve more recovery of Network Rail's performance costs.

13. The impact of the proposal on incentives to operators is more problematic. If the estimated additional performance regime costs are distributed through a 'wash-up' arrangement an operator increasing its train miles would not pay for the estimated performance cost of that increase (as represented by an additional capacity charge) but would pay only its share in the wash-up, i.e. a share of the costs that is equal to its share of total freight train miles. All other freight operators would be charged a similar share of the capacity charge generated by this increase, even if their own train miles remained at the baseline level.

14. While, as discussed below, the precise impact will depend on the range of train operators over which the wash-up is conducted, these effects seem to be an inevitable consequence of the wash-up process. This is a significant disadvantage of the proposal to be weighed against improvement of Network Rail's incentives.

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[3] Rate of charge = marginal rate x (actual freight train miles – baseline freight train miles)/actual freight train miles. However, the rate is zero if the calculation produces a negative number.

Possible variants ORR is considering

15. The RFOA proposed its scheme to apply only in respect of all freight train miles operated on the network, with a baseline of the level used in the Schedule 8 calculations. The proposal was to use the recalibrated rates calculated by Arup during this periodic review.

16. ORR considers that there are a number of possible variations on the RFOA proposal, including extending its scope beyond just freight operators. These are considered below under the following headings:

- The proposal as an overlay: the RFOA proposal could be in addition to rather than as a substitute to the CP4 capacity charges;
- Disaggregation: the wash-up could be disaggregated, perhaps for individual market segments or individual operators;
- Using value rather than train miles as the baseline metric: the wash-up could be conducted in monetary terms, rather than through train miles, in order to accommodate different marginal capacity charge rates;
- Incorporating passenger services: the proposal could be extended to passenger franchise and open access operators;
- Opting in to Arup rates: some groups of services could select to opt in to be charged the recalibrated capacity charge, and hence be excluded from the wash-up.

RFOA proposal as an overlay to the capacity charge

17. Under the RFOA proposal, there is no flow of funds associated with changes in traffic below the set baseline. This feature has poor incentive properties, and means that in some circumstances costs would not be recouped. On the basis of the baseline proposed by the RFOA it would also reduce, potentially substantially, the revenue that Network Rail receives from the capacity charge[4].

18. These effects would be mitigated if the RFOA proposal was introduced as an overlay on the CP4 capacity charge rates, so that the CP4 rates would be paid for traffic below baseline, but Network Rail would receive revenue equivalent to the Arup rates for traffic it accommodated above the baseline.

Disaggregation

19. It would be possible to set train mile baselines that are specific to a different group – e.g. the individual operator or the commodity group. Setting a baseline for each operator would allow each of them to have more certainty around future payments and

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[4] In 2011-12 Network Rail received £4 million in capacity charge revenue from freight operators and £169 million from passenger operators.

would entirely remove the distortion to the operator incentive that makes the charge to one operator depend on the actions of other operators, but it raises the question of how the baseline would be set, not least in relation to new operators.

20. If the baseline was based on existing traffic it would favour incumbents, who would face lower average capacity charges than new entrants. If it were an absolute amount common to all operators, it would favour smaller operators, who would face lower average capacity charges and may not even pay capacity charges at the margin. A hybrid approach could set a minimum level that would apply to new entrants.

21. A baseline specific to a market segment, such as a freight commodity, would increase the extent to which an operator bears the cost of the congestion it causes and limit the extent to which one operator's traffic affected charges to other operators, while treating all operators carrying the commodity in the same way.

22. Disaggregation would introduce data complexities and may have unintended consequences. Moreover, any disaggregation of the baseline could affect incentives on Network Rail. For example, it might prefer traffic in a commodity above its baseline to that of a commodity that was below it. Given the timing of the final determination, we think that there is limited scope for disaggregation by market segment.

Using value rather than train miles as the baseline metric

23. The RFOA's proposal relies on there being only one capacity charge rate for freight. That enables the rate to be scaled by overall freight train miles. However, there are at present two freight rates – the standard rate and a weekend discount. As set out by the RFOA the proposal implies that there would no longer be a weekend discount. While in principle it would be possible to accommodate separate rates using separate baselines for weekend and weekday freight train miles, differing rates can probably be better accommodated through a general variant on the proposal.

24. This general variant would be to change the nature of the baseline and metric used in the wash-up. The RFOA proposal assumes using train mile baselines. Another approach would be to use a value baseline set at what the capacity charge revenue to Network Rail would have been, for a particular traffic baseline, if the Arup capacity charge had been implemented. The wash-up would then be relative to a notional baseline capacity charge bill. The charge rate per train mile would be the Arup rate on that service code times the extent to which the notional capacity charge bill calculated on that basis exceeded a baseline bill total expressed as a fraction of the notional bill total[5]. This would be able to accommodate the weekend discount and also variations in charges by route or on another basis.

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[5] Charged rate = CP5 rate on that service code*(total of all notional bills @ CP5 rates – baseline bill total)/total of all notional bills.

25. This value wash-up could be combined with the “overlay” described above. In that case each operator would be charged the CP4 capacity charge rate plus a proportion of the difference in the total of all bills calculated at CP4 and Arup charge rates above a specified “baseline difference”. Worked examples are set out in an excel file distributed with this letter.

Incorporating passenger services

26. Use of a value baseline would enable the method to be applied to passenger train operators. A complication of applying the RFOA methodology to passenger traffic is that franchised and open-access trains have the capacity charge applied at a service code level (i.e. each passenger service code has its own capacity charge rate/mile). Without a unified rate to apply, the baseline applied would need to be based on a bill rather than a level of traffic[6].

27. The advantages of applying the method to franchise and open access passenger services are obvious. It would remove a disincentive to Network Rail to increase passenger service volumes and send more appropriate signals to operators.

28. Extending the wash-up to cover a larger group of operators would not necessarily increase the variability of the charge to an individual operator. Indeed, it might reduce it. Franchise passenger traffic volumes are less volatile than freight and so there may be less percentage variation from expectations to include in the wash-up.

29. On the other hand, there are arguments for treating different sectors differently. Since existing franchise agreements hold franchise passenger train operators harmless to periodic review changes in their access agreements, such franchise operators would face higher marginal capacity charges without bearing the revenue burden of higher average charges if higher Arup rates were introduced. The apparent intention of the RFOA proposal, to apply appropriate incentives at the margin without causing large changes in operators’ total costs, can be achieved for franchise passenger operators without extending the application of the proposal to them but merely applying the new charge rates.

30. Freight and open access operators, on the other hand, are not held harmless against periodic review changes to charges. In their cases some form of the RFOA proposal would in our view be necessary if the new rates were to be introduced without industry investment and planning being adversely affected by fluctuations in access charge bills.

[6] To reduce complexity associated with implementing this approach, the calculation with respect to passenger services might be based on timetabled passenger services rather than those run.

Open access

31. If a wash-up is applied at the level of all open access operators ("OAOs"), the entry of a new operator on, say, the west coast could significantly affect payments made by the existing east coast OAOs. The problem also applies to a freight wash-up, or a freight and OAO wash-up combined, but its scale is much greater for OAOs because the present small scale of open access means that the likely size of an entrant would be larger relative to the total of existing operations. It would create great uncertainty over future charges.

32. If, on the other hand, each OAO has its own baseline and there is no wash-up, existing operators would have certainty but new entrants would face higher capacity charges and might be deterred. Similarly, existing OAOs might be deterred from expanding their services.

33. We are presently consulting on possible changes to open access[7]. In considering change we must balance our duty to promote competition against our other duties, including duties to have regard to the funds available to ministers, which might be affected by impacts of changes in open access on the sums companies are willing to bid to obtain franchises. We will need to take account of the incentive effects of capacity charges when considering open access regime changes and vice versa.

Opting into Arup rates

34. The Arup study recalculated capacity charges for CP5 on Network Rail's behalf. Implementing these charges would have better incentive properties for both operators and Network Rail, but would result in substantially higher charges in some cases.

35. We are considering whether operators may be allowed to elect that some of their services should opt in to the Arup charge (which they may wish to do, for example, if the Arup charge is below that for CP4), thereby opting-out of the RFOA-type wash-up. Key pertinent issues here are:

- The aggregation of services to which the opt-in may occur. The recalibrated passenger rates are by service code, whereas the CP4 passenger rates are by the more aggregate service group; if we permit opt-in by service code, only those service codes which bear lower Arup rates may opt-in.
- The authority that can make the decision to opt in: it could be the operator of the services in question, or it could need agreement of both the operator and the funder or franchising authority, for example.

[7] http://www.rail-reg.gov.uk/pr13/consultations/open-access.php

Options we wish to consider further

36. We do not wish to pre-empt discussion of other possibilities and welcome comments on all aspects of variants on the RFOA proposal, but for the sake of clarity we think it would be advantageous to focus discussion on a limited number of options to be considered as alternatives to the retention of CP4 capacity charge rates. These are set out in the table below.

37. For each option, the metric is the value of the Arup capacity charge rates, rather than train miles, for traffic above a value (not train mile) baseline. In each case, we think there is considerable merit in levying charges at CP4 rates for traffic below the baseline.

Option	Description
1	Wash-up relative to a single baseline for all freight services together in one group. Wash-up relative to a baseline for each OAO individually. Capacity charge, using Arup rates, for all franchise services (and no wash-up).
2	Wash-up relative to a single baseline for all passenger and freight services together in one group.
3	As options 1 or 2, but services able to opt-in to being charged the Arup capacity charge rates (and hence excluded from the wash-up).

38. An important issue, when considering these options and other permutations, is exposure to financial risk associated with the size of the wash-up. Our assessment is that a single wash-up across all passenger and freight services is likely to be proportionately smaller, and thus impose less risk, than a wash-up for freight services alone, because the potential change in train miles for franchise passenger services is much smaller and better understood.

Next steps

39. We will conclude on this policy as part of our final determination which we are publishing at the end of October.

40. Our decisions with respect to the capacity charge interact with our decisions with respect to other policies and we will need to consider the relationship between them carefully. The two areas of particular relevance are:

- Schedule 8: the size of the recalibrated Schedule 8 Network Rail payment rates are one of the key determinants of the size of the recalibrated capacity charge, the effects of which we are seeking to mitigate.
- Volume incentive: this takes the form of a payment to or payment from Network Rail, and does not involve operators directly. Its effectiveness is in part a function of the incentives associated with the capacity charge.

41. We have made our decisions with respect to freight charges by considering the cumulative impact of all charges, including retaining the CP4 capacity charges. We will need to keep our assessment of the cumulative impact under review in the light of our final decision on the capacity charge.

42. We are currently consulting on the capacity charge and RFOA proposal as part of our draft determination, for which the deadline for responses is 4th September. This letter is not a separate consultation and we are expecting responses on these questions as part of the response to the draft determination. However, if consultees wish to make separate responses to these particular questions earlier, we will consider them too.

43. There will be a meeting of the Capacity Charge Working Group to discuss these issues on 26 July.

44. We are publishing this letter on our PR13 website.

Yours faithfully

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