2018 periodic review draft determination

Supplementary document – Charges and incentives: Variable usage charge consultation

June 2018

Context

The 2018 periodic review is the process through which we determine what Network Rail[1] should deliver in respect of its role in operating, maintaining and renewing its network in control period 6 (CP6)[2] and how the funding available should be best used to support this. This feeds through into the:

- service that passengers and freight customers receive and, together with taxpayers, ultimately pay for; and
- charges that Network Rail's passenger, freight and charter train operator customers will pay for access to its track and stations during CP6.

This document forms part of our draft determination, which sets out our overall decisions on PR18 for consultation. We have also published an overview document, setting out:

- our proposed decisions in all the main areas of PR18 and next steps; and
- a summary of how we will regulate Network Rail's delivery in CP6.

In addition, there are high-level summaries of our main decisions for each of England & Wales and Scotland. The full set of documents that form the draft determination is set out in the diagram below. After taking account of consultation responses, we will publish our final determination in October 2018.

A map of our earlier consultations and conclusions that have led up to our draft determination is available here.

Responding to the consultation on our draft determination

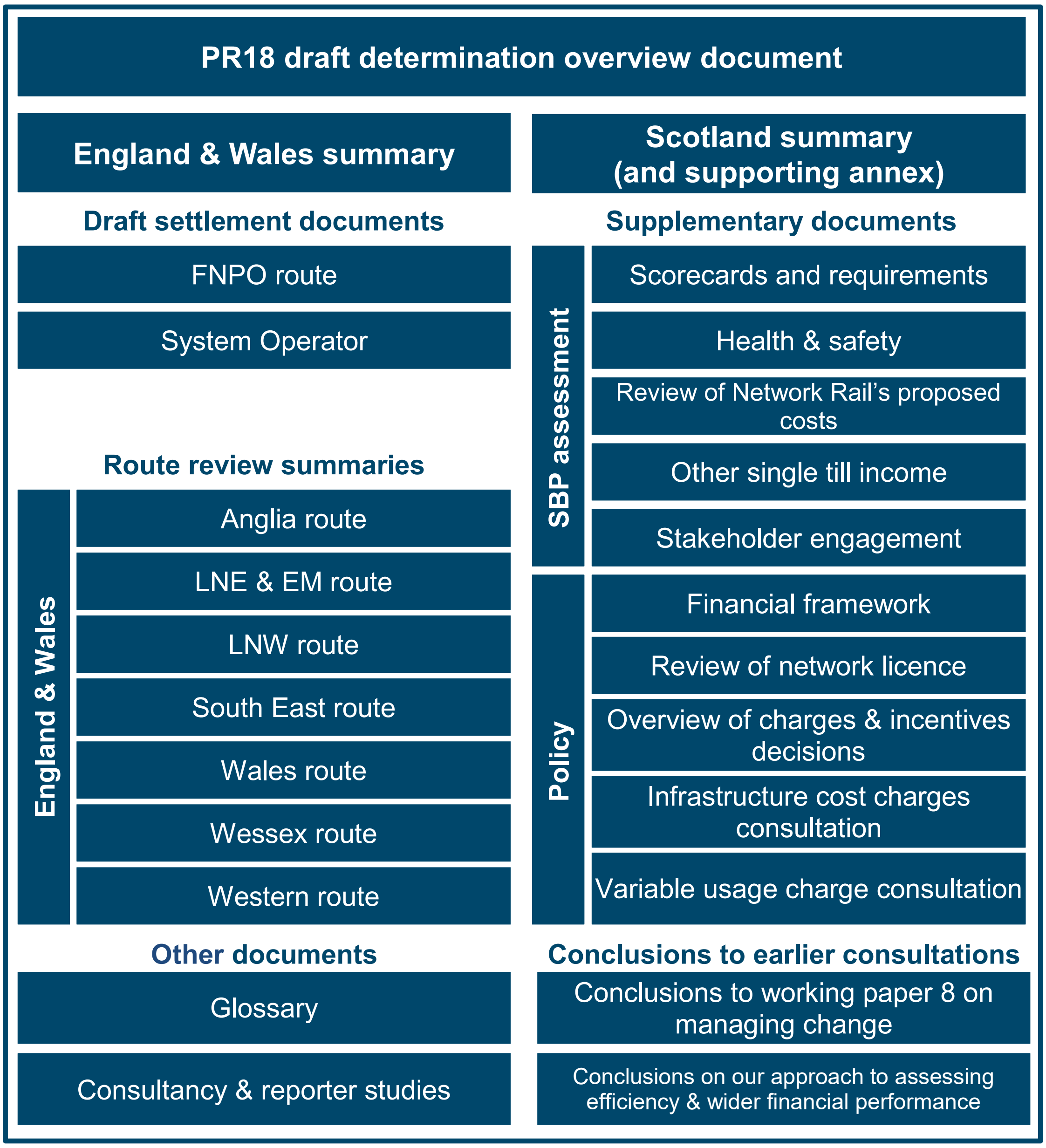
We welcome comments on this document and/or the other documents that form part of our draft determination by **Friday 31 August 2018**. Full details on how to respond are set out in Appendix B of our overview document. This includes how we will treat any information provided to us, including that which is marked as confidential. Subject to this, we expect to publish responses alongside our final determination in October 2018.

We have provided a pro-forma, should you wish to use this when responding. If you choose not to use the pro-forma, we would be grateful if you would make clear in your response that you are commenting on this supplementary document. This will assist our process for reviewing comments.

[1] All references to Network Rail in this document are to Network Rail Infrastructure Limited.

[2] CP6 will run from 1 April 2019 to 31 March 2024.

Our draft determination documents (includes weblinks)*



*Please note that some documents, including consultancy and reporter studies and impact assessments, will be published following 12 June 2018.

Introduction

1. As part of PR18 we are reviewing the access charges paid by operators. This consultation document supplements the information provided within the [2018 periodic review draft determination](#) on the Variable Usage Charge (VUC) in CP6. Annex A of the [supplementary document on charges and incentives](#) provides a high-level overview of the proposed charging structure for CP6 for different types of operators. This is based on policy decisions we have already made (as set out in the

supplementary document), as well as policy we are currently consulting on in relation to the VUC and infrastructure cost charges (ICCs).

2. We outline our proposed policy for the VUC and provide an update on the recalibration process for the charge. In particular, this paper details our proposed policy position with respect to capping/phasing-in the increase in the VUC in CP6.

3. This document is structured as follows:

- Background to the VUC
- PR18 work on the VUC
- Policy considerations
- Capping/phasing-in proposal
- Next steps

Background to the VUC

4. The VUC is a charge designed to recover the operating[3], maintenance and renewal costs that vary with marginal changes in traffic. It does not reflect the costs of providing or changing the capability or capacity of the network.

5. The charge is important in delivering PR18 objectives of a network that is efficient and better used. It does this by (either individually or in combination with other charges) affecting the incentives for:

- operators to develop track friendly vehicles;
- operators to only operate services where the short-run marginal benefit is greater than short-run marginal cost; and
- Network Rail to accommodate additional traffic.

6. The VUC recovers costs relating to three broad cost elements: track, civil engineering and signalling. Track 'wear and tear' costs make up c.85% of the charge. The methodology for calculating VUC rates is an established process which draws upon third party research and is underpinned by the Vehicle Track Interaction Strategic Model (VTISM) – an engineering model owned by RSSB and used by Network Rail.

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[3] In practice, rail infrastructure operating costs are widely understood not to vary materially with traffic, and the charge was set in CP4 to recover variable maintenance and renewal costs only.

7. The charge is disaggregated by vehicle class and freight commodity to increase the cost reflectivity of the charge. Broadly, heavier and faster vehicles incur a higher VUC, reflecting the relatively higher levels of damage that they cause.

8. In order to simplify the following discussion, we have focused on the *average* rates for different operator types (franchised, open access, charter and freight). However, it is important to highlight that there will be considerable variation in the *individual* rates as the charge is broken down by vehicle class and (for freight) commodity.

PR18 work on VUC

Overall approach

9. In June 2017 we concluded on our consultation on changes to 'charges and contractual incentives'. These conclusions stated that there would not be a fundamental review of the VUC. In particular, we would not geographically disaggregate the charge nor replace the role that the VTISM model has in setting the charge.

10. However, we concluded that the charge would be subject to recalibration by Network Rail as part of the PR18 process (in line with other charges). This involves the charges being updated to reflect factors such as changes to Network Rail's costs and in patterns of traffic on the network. In addition, we would continue to support Network Rail to consider minor methodology changes to improve cost reflectivity, subject to appropriate consultation.

11. We have discussed with Network Rail its proposed approach for recalibrating the charge and jointly commissioned Arup as an independent reporter to quality assure the VUC calculation. This work is ongoing and we will take into account its findings when making our final determination on VUC. However, we are minded to approve the approach adopted by Network Rail pending final proposals.

Recalibration amendments

12. Both our December 2016 'charges and contractual incentives' consultation and Network Rail's July 2017 consultation on 'variable and station charges in CP6' asked for and/or proposed minor methodological changes to the charging methodology, primarily focused on improving cost reflectivity.

13. Responses to the July 2017 consultation have been considered by Network Rail with changes to the methodology outlined in their document 'Network Rail's conclusions on variable charges and station charges in Control Period 6,' accessible here. At this stage we are minded to agree with Network Rail's conclusions. A number of issues

are still being considered as part of the recalibration process and we will outline our position in the final determination.

14. Network Rail's conclusion document also considered how its VUC estimates comply with relevant EU legislation. In particular, how they comply with the new EU implementing regulation (2015/909) issued in June 2015, which provided further clarification on the calculation of the cost that is directly incurred as a result of operating a train service. Network Rail's assessment in light of the implementing regulation has resulted in a 9% reduction in the average level of the uncapped VUC.

15. ORR has not undertaken a detailed review of Network Rail's assessment of excludable costs, nor have we reviewed costs that were previously excluded to assess whether there could be a case for reflecting them in the VUC. This is proportionate as the capping policy outlined in this paper significantly reduces the impact of the decisions on the appropriate scope of costs on the VUC charge paid by freight and charter operators in CP6. However, as charges move closer to costs – as they are expected to in CP7 – it will become increasingly important to have greater clarity on which costs should be reflected in the VUC. This will need to be reviewed during CP6, to facilitate decision-making ahead of PR23.

Indexation of charges to CPI

16. We have also set out our view that in CP6 we will move from RPI to CPI for the inflation indexation of track access charges (and other payment rates where we set the method of indexation). The Office for Budget Responsibility forecasts annual RPI inflation to exceed CPI inflation by c.1% per annum over the period of CP6. This means that for indexed charges such as the VUC, train operators are forecast to pay lower nominal charges than would have been the case using RPI. By the final year of CP6, train operators are forecast to pay (nominal) rates which will be approximately 5% lower under CPI than RPI.

Publication of VUC rates

17. The recalibration process is continuing for the VUC. As outlined in our April 2018 letter, a price list reflecting our proposed approach to capping/phasing-in the VUC (as detailed within this paper) will be published by Network Rail following publication of the draft determination. Network Rail is aiming to publish draft CP6 price lists, consistent with our draft determination, by the end of July 2018.

Policy considerations

Increase in VUC

18. The cost of repairing the wear and tear that train operators cause the network is now significantly higher than the charges levied to meet these costs and without mitigation the VUC would increase materially in CP6.

19. The below table illustrates the forecast size of the uncapped VUC increase on average across franchised, open access, freight and charter operators. However, it should be noted that these figures may be subject to change following the draft determination as a result of the ongoing VUC recalibration and quality assurance processes.

Table 1: forecast average increase in the VUC relative to the final year of CP5 (2017/18 prices, constant traffic (2018/19), post-efficient (NR SBP assumptions))

	Uncapped average CP6 increase
Franchised	35%
Open access	36%
Freight	43%
Charter	35%

20. The change in the (uncapped) VUC rate is driven by:

- **Unwinding PR13 caps:** in PR13 we capped the average freight VUC rate increase at 10%. This cap was phased in over CP5[4]. However, we remained silent as to when the remaining increase (i.e. that above 10%) should be charged. Removing the remainder of PR13 caps increases the charges relative to the capped end CP5 rates.
- **Deterioration in Network Rail efficiency:** in PR13, we applied an 18.9% efficiency overlay to the VUC, from the first year of CP5. These efficiencies have not been realised in CP5 and, in fact, Network Rail has become less

[4] In PR13, we concluded that the new rates for VUC freight traffic should be implemented subject to a cap on the average VUC. This cap was relative to CP4 rates and was 10%. The capped average increase to the VUC for freight traffic was phased in over the duration of CP5 (0% in years 1 and 2, rising to 20% in year 3, 60% in year 4 and 100% in year 5).

efficient compared to CP4. This has led to an increase in the costs used to calculate the VUC.

- **Other recalibration adjustments:** any other changes affecting the calculation of the charge (such as those outlined above) will feed through into the VUC rates.

Balancing our legal requirements and statutory duties

21. We have considered the VUC increase in accordance with the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016 and the Commission Implementing Regulation (EU 2015/909). The legislation is broadly in line with standard network pricing principles; namely, that charges cover at least short-run marginal cost.

22. Our interpretation of this legislation is that costs directly incurred have to be recovered from train operators but we are satisfied that we have the flexibility to allow for such changes to the level of the VUC to be brought in over a period of time (i.e. the charge can be capped/phased in).

23. However, such capping/phasing-in must not be open-ended or indefinite; there must come a time when full costs are charged and our decision should be credible over time and not, for example, imply an extremely unlikely change in charges at the next review. Any capping/phasing-in needs to be justified against ORR’s statutory duties.

24. Furthermore, we have had regard to our statutory section 4 duties in reaching our decision on capping/phasing-in (and in particular: 4(1)(g) enable persons providing railway services to plan the future of their businesses with a reasonable degree of assurance, 4(5)(b) not render it unduly difficult for [Network Rail] to finance its activities and 4(5)(c) to have regard to the funds available to the Secretary of State for the purposes of his functions in relation to railways or railways services).

25. In light of our statutory duties we particularly considered the following when assessing the use of a VUC cap in PR18:

26. **Better use of the network**: the VUC provides an incentive for efficient use of the network. A cost-reflective VUC will encourage operators to invest in track-friendly vehicles and only to use the network where the marginal benefit is greater than or equal to the short-run marginal cost. In addition, the VUC income affects the incentives on Network Rail to accommodate additional traffic. To the extent that the VUC income from extra traffic is below the additional costs incurred, this may discourage Network Rail from supporting growth.

27. **Impact on funding**: the use of capping/phasing-in will reduce the variable charges income received by Network Rail. In its March 2018 letter DfT stated that, as funder and shareholder, it is satisfied that capping the VUC for freight and charter operators at end of CP5 levels would be consistent with the assumptions it made in the Statement of Funds Available (SoFA).

28. **Supporting rail sector growth and stability**: it is important to consider the impact that material increases in the VUC will have on different operators. Freight operators have, in particular, engaged with ORR throughout the charges and incentives project and have highlighted the importance of a stable charging environment in supporting investment decisions, their tight operating margins and the sensitivity of the industry to price (with competition from road being a particular issue). More generally, the rapid decline in coal freight has prompted significant restructuring in the sector.

29. Funders have also stressed the need for the charges and incentive framework to provide a stable platform to enable and encourage growth in the rail freight sector. Indeed, Transport Scotland included specific freight growth targets in its HLOS and confirmed in its March letter that it is looking to grow both the rail freight and rail tourism market in Scotland. DfT stated that it considers freight and charter capping in CP6 to be appropriate but not for either franchised or open access operators.

Looking at increases 'in the round'

30. When assessing the appropriateness of capping/phasing-in the VUC, it is important to also consider the expected changes to other charges for different operator types given wider ORR policy decisions around charges and incentives, recalibration of charges and changes in Network Rail's cost base.

31. We have developed a PR18 charges and incentives impact model which we described in our accompanying note. The impact model has allowed us to understand the scale of changes in the level of charges for various segments (e.g. commodities) or types of operators (e.g. franchised passenger versus open access) resulting from policy changes and recalibration.

32. For assessing the VUC capping/phasing-in policy for PR18, we have particularly considered forecast 'total variable charges' which we have taken to include the VUC, the electrification usage charge (EUAC), the traction electricity charge (EC4T), the capacity charge and the coal spillage charge.

33. In our June 2017 charges and contractual incentives consultation conclusions letter we decided that two of the CP5 variable charges (capacity charge and coal spillage

charge[5]) would be removed in CP6, providing a benefit to operators. Different operators pay different mixes of variable charges and so the net impact of the reduction of these charges and the increase in the VUC (to uncapped levels) varies.

34. The effects of changes to variable charges on **franchised operators** are mitigated by franchise contracts: franchised passenger operators are held harmless to any changes in these charges. In practice this means that any increase in the VUC or reduction in the capacity charge they pay is offset by a reduction in the franchise premiums they pay or an increase in franchise support.

35. **Open-access operators (OAOs)** are not expected to see a material increase in their total variable charges in CP6. The forecast increase in VUC will be broadly offset by the removal of the capacity charge.

36. Forecasts show that the removal of the capacity charge will not offset the material increase in the VUC for **charter operators**. The level of profitability of certain operators and services varies significantly, reflecting the varied nature of charter operations. As discussed below, we are also mindful of the relatively moderate level of charges income generated by the charter VUC and of the need to maintain simplicity in the overall charges framework.

37. It is forecast that the removal of the capacity charge and coal spillage charge will not offset the increase in the VUC for **the freight operators**. Our forecasts indicate that they will see a material increase in their total variable charges, unless steps are taken to mitigate the increase in the VUC. As outlined above, the extent of this net increase will vary for the different commodity types.

Capping/phasing-in proposal

38. We set out below our proposals for capping/phasing-in the VUC in CP6. Further details of the policy options considered are summarised in the accompanying impact assessment, to be published shortly after the draft determination.

39. EU and UK legislative requirements mean that costs directly incurred have to be recovered from operators but that there can be capping/phasing-in of any increase in charges on the basis that such capping/phasing-in must not be open-ended or indefinite; there must come a time when full costs are charged.

40. We have considered our statutory duties when considering our policy options. In particular, we are mindful of the potential benefits to operators of keeping charges at a sustainable and predictable level. Indeed, these concepts are related as, if

[5] The coal spillage charge is paid by a small proportion of freight operators only.

operators are provided with advanced warning of changes, this provides time for them to adjust to the future charges levels. Reflecting this, our proposed policy provides these operators with time to adjust and plan for the required increases in their VUC charges.

41. We also placed weight on the need to provide a credible long-term trajectory as this will provide operators and rolling stock companies with clearer expectations on the future level of charges. This will support the incentives on all parties to invest appropriately in track-friendly vehicles over time. Related to this, we consider it important for the profile of charges to be credible over time and for the approach taken to be repeated at PR23 without implying a change in charges that would not be viewed as credible at the time.

42. We have had particular regard to the impact on train operators' total variable charges. This is particularly important in CP6 as we have already announced some significant changes to variable charges as part of our wider simplification of access charges. In particular, we have decided to remove the capacity charge for CP6, which leads to a significant reduction in one element of total variable charges.

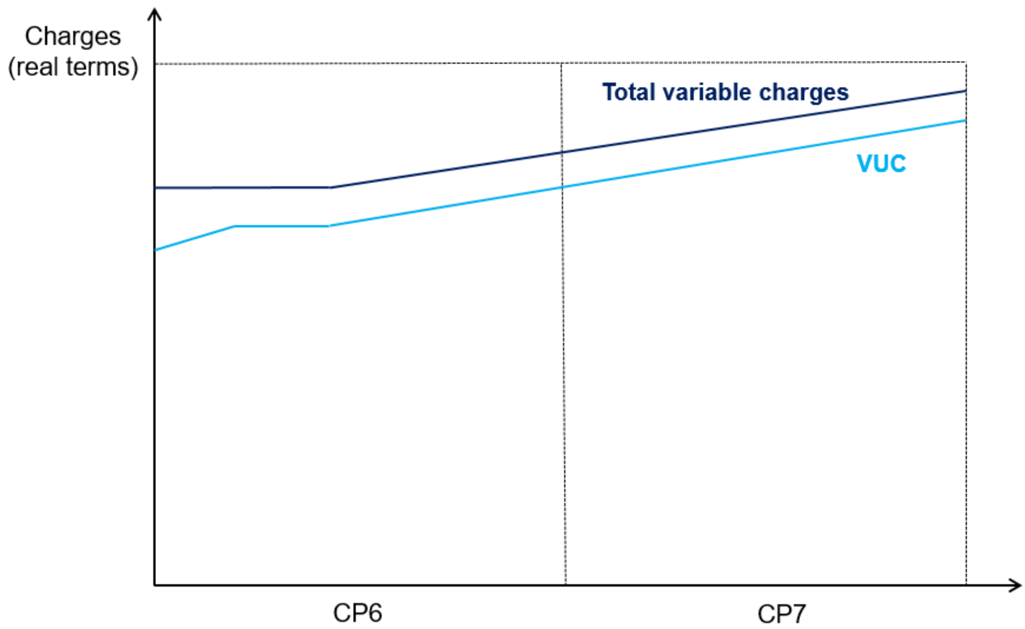
43. Against this background, our proposed approach to cap/phase-in the VUC for certain operators can be summarised as follows:

- The following policy will not apply to franchised operators nor to open access passenger operators. Franchised operators are 'held harmless' by their franchise agreements and the open access passenger operator group is not forecast to incur a material increase in their total variable charges in CP6.
- The capping/phasing-in policy will apply to freight and charter operators who are forecast to incur material increases in their (uncapped) total variable charges in CP6.
- The increase in costs will be reflected in the VUC for freight and charter operators in CP6 based on a transition to cost-reflectivity over a 10 year period (i.e. over CP6 and CP7).
- In years 1 and 2 of CP6, total variable charges (including forecast VUC, EUAC, EC4T, the capacity charge and the coal spillage charge[6]) for freight and charter operators will be held constant in real terms (i.e. equal to the final year of CP5). This will necessitate an increase in the VUC charge in year 1 to offset the fall in total variable charges due to the removal of the capacity charge and the coal spillage charge in CP6.

[6] The capacity charge and coal spillage charge are to be removed in CP6 but are included in the calculation of total variable charges in the final year of CP5.

- In the following three years of CP6, the VUC will be based on a straight-line transition to full cost reflectivity by the end of CP7 (i.e. reaching the current estimates of the uncapped charges level).
- We have included Network Rail's efficiency assumptions for the last year of CP6 (from its February 2018 Strategic Business Plans) in the estimate of costs directly incurred. We have not anticipated any further efficiencies or inefficiencies from that point over CP7. We expect to update the Network Rail efficiency input with our efficiency assumptions for CP6 which will be outlined in our final determination.
- In line with our decision to change our indexation approach, charges will be linked to CPI in CP6. This will provide greater stability over time and by the final year of CP6, train operators are forecast to pay (nominal) rates which will be approximately 5% lower under CPI than RPI.
- The capping/phasing-in profile described above will be used to determine the profile for each freight commodity segment (by applying the profile for freight to the difference between each commodity's charges at the end of CP5 and the uncapped rates).
- North Yorkshire Moors Railway's services and West Coast Railway Company's Jacobite services will be subject to the charter capped VUC transition profile.

Figure 1: The transition profile for capped operators[7]



[7] Diagram is not generated directly from the underlying data. Illustrative only.

44. As illustrated in figure 1, freight and charter operators will benefit from a two-year adjustment period during which there will be no increase in their total variable charges in real terms (shown in dark blue). The transition to uncapped levels is then based on a steady straight-line ‘glide path’ to the end of CP7. This means that the VUC for freight and charter operators will also include phasing-in, including to adjust for the changes to other variable charges (including the removal of the capacity charge).

45. It is important to note that while this profile illustrates the expected trajectory of charges in CP7, the charges will need to be recalibrated as part of PR23 and decisions regarding the level of the VUC for operators will be revisited at that time.

46. When making decisions regarding passenger operators it is important to note that we have considered the two main high-level market segments: public service contract operators (i.e. franchised operators) and other passenger services. We consider the other passenger services can be further sub-segmented between charter and open access operators.

47. These segments all differ in terms of access regime and the nature/purpose of the service. The charging scheme should take account of these differences and we do not consider that adopting a different approach across these different operators is unduly discriminatory. Indeed, it would risk undue discrimination if we were to not reflect such differences in a charging scheme.

48. While they are both in possession of fixed access rights (in common with OAOs), we have treated the North Yorkshire Moors Railway and the Jacobite services run by West Coast Railways as being akin to charter services in the context of our VUC capping/phasing-in policy given the nature of their services (primarily steam heritage services provided over the summer).

Indicative impact of our proposal

49. We present high level numbers below to illustrate the estimated impact of the proposed capping/phasing-in policy. As outlined above, it should be noted that these figures may be subject to change following the draft determination as a result of the ongoing VUC recalibration and quality assurance processes, including the application of our ORR efficiency assumptions for CP6.

50. In addition, the move to CPI for the indexation of track access charges in CP6 is forecast to result in affected charges being inflated by c.1% less per annum than would have been the case under RPI. By the final year of CP6, train operators are forecast to pay (nominal) rates which will be approximately 5% lower under CPI than

RPI. This impact has not been incorporated into the below figures which are presented in 2017/18 prices.

51. Table 2 presents a summary of our current estimates of the overall impact of the above capping/phasing-in policy on total variable charges. It shows the increase in the charges from the last year of CP5 (‘close CP5’) to the levels that would apply in each year of CP6 if the VUC were not capped or subject to any phasing-in. The impact of capping/phasing-in can then be understood by considering how average charges across CP6 relate to this ‘close CP5’ level and how they compare to the charges in the final year of CP6.

Table 2: Forecast average increase in total variable charges[8] relative to the final year of CP5 (2017/18 prices, constant traffic (2018/19), post-efficient (NR SBP assumptions))

	Uncapped CP6 increase	Capped average CP6 increase	Capped final year of CP6 increase
Freight	29%	4%	11%
Charter	17%	3%	6%

52. As a result of the two-year adjustment period, there will initially be two years where total variable charges will increase by only CPI. They will then increase by an average of CPI plus 3.6% and 2.1% per annum over the last three years of CP6 for freight and charter operators, respectively. As noted above, the switch to CPI will reduce increases in annual charges by approximately one percentage point per annum relative to RPI.

53. As explained above, the VUC is driven by the transition profile set out for total variable charges. There will be an increase in the VUC above CPI in the first year of CP6 (to offset the removal of the capacity charge and the coal spillage charge). The VUC will then increase by only CPI for one year (to deliver the two-year total variable charges adjustment period) and then increase at a rate above CPI to deliver the above increases in total variable charges.

54. Under the proposed policy, average increases in the VUC for freight and charter operators are set to increase to reflect the full costs of wear-and-tear on the network towards the end of CP7.

[8] Including the VUC, EUAC, EC4T and the capacity charge and the coal spillage charge as applicable

Next steps

55. The recalibration process is continuing for the VUC. As outlined in our April 2018 letter, the price list[9] reflecting our proposed approach to capping/phasing-in the VUC (as detailed within this paper) will be published by Network Rail in July 2018 following the publication of this draft determination.

[9] The price list will include prices by vehicle and commodity type (for freight).