

Periodic Review 2013 – Conclusions on the Coal Spillage Charge and Coal Spillage Reduction Investment Charge

April 2013



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EXECUTIVE SUMMARY

Coal charges

At present, the following track access charges are levied on freight operators carrying coal:

- **Coal Spillage Charge (CSC):** Designed to recover the cost impact of coal spillage on the network. For example, the cost of clean-up, delay minutes and reduced asset lives.
- **Coal Spillage Reduction Investment Charge (CSRIC):** Finances a fund that can be used to invest in equipment at coal terminals with the aim of reducing coal spillage on the network.

Both charges are levied as an uplift on the Variable Usage Charge (VUC) on freight traffic carrying coal. In 2011/12, Network Rail's income from the CSC and CSRIC was approximately £1.6m¹ (cash prices). This equates to approximately 3% of the total income that we receive from freight operators. The investment fund generated by the CSRIC in the first two years of CP4 amounted to approximately £295,000².

Coal charges and PR13

Prior to issuing our December 2012 consultation, we set out our proposed methodology³ and emerging analysis⁴ at the regular Variable Track Access Charging (VTAC) Meeting. During the consultation we also discussed the issues in more detail with stakeholders at this meeting⁵.

As part of the 2013 Periodic Review (PR13), it is Network Rail's responsibility to work and consult with the industry in order to re-calibrate coal charges for CP5, before proposing revised charge rates to ORR. Following the conclusion of our consultation on coal charges, in this document we set out our draft CP5 price list. Ultimately, however, any decision in relation to charge rates in CP5 is a matter for ORR.

The purpose of this document

Following careful consideration of consultation responses, the purpose of this document is to conclude on the proposals set out in our December 2012 consultation⁶. We also respond to other issues raised by stakeholders in response to our consultation.

¹ The £5m value in the 2011/12 Regulatory Accounts in relation to coal spillage income is incorrect and is actually the sum of coal spillage charge and freight-only line charge income. We will remedy this issue in the 2012/13 Regulatory Accounts.

² Total fund receipts to date are £295,234.66; this has been used to fund 10 schemes at a cost of £249,740.99, resulting in a surplus of £45,493.67.

³ Network Rail presented its proposed methodology for developing the CSC and CSRIC in CP5 on 7 March 2012.

⁴ Network Rail presented its emerging analysis in respect of the CSC and CSRIC on 30 May 2012.

⁵ Network Rail presented an overview of its consultation document on 11 January 2013.

⁶ Network Rail consultation on the Coal Spillage Charge (CSC) and the Coal Spillage Reduction Investment Charge (CSRIC). Available here <http://www.networkrail.co.uk/publications/delivery-plans/control-period-5/periodic-review-2013/pr13-closed-consultations/>

This document also sets out an updated estimate of coal spillage costs and proposed CP5 CSC rates, based on the cost and traffic data included in our Strategic Business Plan (SBP). It also reflects the recommendations of the independent reporter, Arup, who reviewed the analysis in our December 2012 consultation document.

Summary of conclusions on policy issues

We received seven responses to our December 2012 coal consultation from the following stakeholders:

- CoalPro (the Confederation of UK Coal Producers);
- Coallmp (the Association of UK Coal Importers);
- DB Schenker;
- Drax Power Limited;
- Freightliner;
- GB Railfreight; and
- Rail Freight Group.

We would like to take this opportunity to thank those stakeholders who took the time to respond to our consultation and / or attend the January 2013 VTAC meeting where we discussed the document in more detail. We value feedback on all our charging proposals.

Following careful consideration of these responses we have concluded on each of the policy issues discussed in the consultation document. We summarise our conclusions on each of these issues, below. Our conclusions are set out in more detail in the remainder of this document.

CP5 estimate of coal spillage costs and charge rate

Following the publication of our consultation, ORR and Network Rail commissioned the independent reporter, Arup, to review the methodology and assumptions used to calculate our initial estimate of the cost impact of coal spillage on the network.

In its final report, Arup recommended several refinements, set out in more detail, below, to our initial estimate of coal spillage costs. We propose incorporating these recommendations in full into our updated estimate of coal spillage costs. Reflecting these recommendations in our cost estimate, and updating it to reflect the SBP cost and traffic data, and most recent list of coal loading / unloading locations, results in our estimate of coal spillage costs reducing from £4.95m to £4.02m (2012/13 prices end CP5 efficiency). Subsequently, it also results in our estimate of the CP5 CSC rate falling from 64.97 pence per 1000 gross tonne miles to 52.78 pence per 1000 gross tonne miles (2012/13 prices end CP5 efficiency). This compares to a CP4 (year one) CSC rate of 29.17 pence per 1000 gross tonne miles (2012/13 prices end CP5 efficiency).

CP5 Coal Spillage Reduction Investment Charge

Following careful consideration of consultation responses, we propose that the CSRIC should be discontinued in CP5.

We consider that where coal wagon rave cleaners have been installed this has contributed to a reduction in the level of coal spillage on the network. However, during the course of CP4, wagon cleaning equipment has been fitted at the busiest

coal loading locations. Coal traffic volumes are also forecast to decline which will reduce the need for the continued instalment of wagon cleaning equipment.

We also propose that any surplus funds that remain at the end of CP4, should be retained for CP5, to fund, or part fund, any final initiatives to install cleaning equipment. If there were to be any money remaining in the fund at the end of CP5, which we consider unlikely, we propose refunding this to freight operators in proportion to their respective contributions.

Annual review of charges in CP5

Following careful consideration of consultation responses, we are proposing that the level of the CSC should no longer be reviewed on an annual basis. The primary reason for this is that we consider reviewing the charge annually imposes disproportionate administration costs on the industry. It has not been proposed that the level of any other track access charge due to be levied in CP5 will be reviewed, in consultation with the industry, on an annual basis. We, therefore, do not consider it appropriate to retain an annual review mechanism for a track access charge which accounts for approximately 3% of the total income that we receive from freight operators.

As noted, above, we are proposing discontinuing the CSRIC in CP5. However, if ORR were to determine that the CSRIC should be retained for CP5, we propose that it should be set for the duration of the control period. We also believe that reviewing the level of this charge on an annual basis imposes disproportionate administration costs on the industry and is inconsistent with the approach to setting other track access charges, which are set for the duration of the control period.

Combining the CSC with the proposed Freight-Specific Charge

In its January 2013 decision document⁷, ORR determined that a new Freight-Specific Charge should be levied on ESI coal but not coal transported for other purposes. Hence, it would not be possible to fully recover the cost impact of coal spillage through the new Freight-Specific Charge in CP5.

We do not consider it appropriate to recover coal spillage costs through two separate track access charges (i.e. the CSC and the Freight-Specific Charge). Therefore, following careful consideration of consultation responses, we propose that coal spillage costs should continue to be recovered by the CSC, rather than partly by the new Freight-Specific Charge, in CP5.

Stakeholder engagement and next steps

We are committed to continuing to work with stakeholders and developing coal charges for CP5 in a transparent and consultative way. This conclusions document represents the next step in that process.

ORR is due to publish its Draft Determination in June 2013 which will cover track access charges, including coal charges. It will then publish its Final Determination in October 2013. In December 2013, it will audit and approve final track access charge price lists, including the CSC price list, before the revised charge rates are implemented on 1 April 2014.

⁷ Periodic Review 2013 – Rail freight: conclusion on the average variable usage charge and a freight specific charge. Available here <http://www.rail-reg.gov.uk/pr13/consultations/freight-charges.php>

The principal future milestones for PR13 are set out in the table, below:

Principal milestones	
12 June 2013	ORR Draft Determination
31 October 2013	ORR Final Determination
By 31 December 2013	Final pricelists made available
1 April 2014	Implement new Coal Spillage Charge rates

As noted, above, although, as part of this document, we propose revised coal charges for CP5, ultimately the final decision rests with ORR. Moreover, it is likely that ORR's Draft Determination, in June 2013, will necessitate changes to the proposed charge rates included in this document.

1. INTRODUCTION

1.1. Coal charges

As noted above, at present, the following track access charges are levied on freight operators carrying coal:

- **Coal Spillage Charge (CSC):** Designed to recover the cost impact of coal spillage on the network. For example, the cost of clean-up, delay minutes and reduced asset lives.
- **Coal Spillage Reduction Investment Charge (CSRIC):** Finances a fund that can be used to invest in equipment at coal terminals with the aim to reducing coal spillage on the network.

Both charges are levied as an uplift on the Variable Usage Charge (VUC) on freight traffic carrying coal. In 2011/12 Network Rail's income from the CSC was approximately £1.6m⁸ (cash prices). This equates to approximately 3% of total income that we received from freight operators. The investment fund generated by the CSRIC in the first two years of CP4 amounted to approximately £295,000. Following industry consultation it was agreed that, due to the surplus funds available, the CSRIC would be discontinued for years three and four of CP4 and it appears likely that a similar proposal will be made for year five. At present, there is approximately £45,000 remaining in the investment fund⁹.

1.2. Background

In the 2008 Periodic Review (PR08) we initially estimated the cost impact of coal spillage on the network¹⁰. This initial cost estimate was reviewed and refined by the independent reporter, Halcrow¹¹, before being reduced by ORR for charging purposes to reflect its long-run efficiency assumptions. A high-level summary of Halcrow's refined estimate of the cost impact of coal spillage is set out in the table, below (the price base and efficiency level has been adjusted to be consistent with the rest of this document (i.e. 2012/13 prices, end CP5 efficiency) :

⁸ The £5m value in the 2011/12 Regulatory Accounts in relation to coal spillage income is incorrect and is actually the sum of coal spillage charge and freight-only line charge income. We will remedy this issue in the 2012/13 Regulatory Accounts.

⁹ Total fund receipts to date are £295,234.66; this has been used to fund 10 schemes at a cost of £249,740.99, resulting in a surplus of £45,493.67. This differs from the figure of £85,000 in the consultation document as there has since been approval to install wagon rave cleaners for Immingham Bulk Terminal, at a cost of c.£39,000.

¹⁰ Network Rail October 2007 Strategic Business Plan, supporting document, structure of charges, chapter 5. Available here: [Network Rail - Strategic Business Plan 2007](#).

¹¹ Independent Reporter A, Reporter Mandate – Coal Dust Spillage Costs, Final Report. Available: [PR08 consultants' reports](#).

Halcrow PR08 cost estimate (2012/13 prices end CP5 efficiency)

Cost Category	£m
Cost of clean up and delay minutes	0.21
Cost of Rail Vac on repeat points failure sites	0.57
Cost of point end service life reductions	1.03
Cost of Plain Line service life reductions	1.08
Total	2.88

The level of the CSRIC was set on a heuristic basis in PR08 with the aim of generating an investment fund of around £250,000 per annum (2009/10 prices)¹².

The primary purpose of our December 2012 consultation was to seek views on our initial estimate of coal spillage costs and the structure of the CSC and CSRIC in CP5. Hence, the primary focus of this conclusions document is also on these issues.

The initial cost estimates set out in our December 2012 consultation were based on the cost data included in our Initial Industry Plan (IIP), which was the latest information available at the time. However, in January 2013 we published our SBP that contained updated cost and traffic data. Therefore, in Chapter Two, below, we have refined our initial estimate of coal spillage costs, and Coal Spillage Charge rates, to reflect this updated data.

We have also refined our initial cost estimate to reflect the recommendations of the independent reporter, Arup, who reviewed the analysis set out in our December 2012 consultation.

Please note that all values in this document are in 2012/13 prices and at end CP5 efficiency unless otherwise stated.

1.3. Structure of this document

The remainder of this document is structured as follows:

- CP5 estimate of coal spillage costs and charge rate: Conclusions;
- CP5 Coal Spillage Reduction Investment Charge: Conclusions;
- Annual review of charges in CP5: Conclusions;
- Combining the CSC with the proposed Freight-Specific Charge: Conclusions;
- Conclusion and next steps;
- Appendix 1 – Draft CSC price list;
- Appendix 2 – Amended list of coal loading and unloading points; and
- Appendix 3 – Response to detailed points raised by stakeholders.

¹² ORR, Periodic review 2008, Determination of Network Rail's outputs and funding for 2009-14, page 304.

1.4. Stakeholder engagement and next steps

We are committed to continuing to work with stakeholders to develop coal charges for CP5 in a transparent and consultative way. This conclusions document represents the next step in that process.

ORR is due to publish its Draft Determination in June 2013 which will cover track access charges, including coal charges. It will then publish its Final Determination in October 2013. In December 2013, it will audit and approve track access charge price lists, including the CSC price list, before the final revised charge rates are implemented on 1 April 2014.

The principal future milestones for PR13 are set out in the table, below:

Principal milestones	
12 June 2013	ORR Draft Determination
31 October 2013	ORR Final Determination
By 31 December 2013	Final pricelists made available
1 April 2014	Implement new Coal Spillage Charge rates

As noted, above, although as part of this document we propose revised CSC rates for CP5, ultimately the final decision rests with ORR. Moreover, it is likely that ORR's Draft Determination, in June 2013, will necessitate changes to the proposed charge rates included in this document.

2. CP5 ESTIMATE OF COAL SPILLAGE COSTS AND CHARGE RATE: CONCLUSIONS

2.1. Coal spillage cost estimate methodology

Summary of proposal in our consultation document

Cost of clean up and delay minutes

We proposed updating the cost of remedying a coal related points failure which does not cause delay minutes from £320 to £500¹³ per failure, to include the cost of replacement ballast. We considered that the CP4 estimate of £660¹⁴ per failure to remedy a coal-related points failure, which does cause delay minutes, remained appropriate.

We also proposed updating the assumed number of points failures and Schedule 8 payments, due to coal spillage, to reflect our experience in CP4.

Cost of Rail Vac, Tube Cube and manual interventions

We refined the CP4 estimate, to reflect the fact that Rail Vac¹⁵ is deployed at locations where the level of coal contamination results in a loss in the integrity of the ballast and, therefore, causes repeated track geometry faults. We assumed that Rail Vac is deployed, on average, 26 times per annum at a cost of £30,000 per weekend possession, during which it can treat one set of points, rather than the two assumed in PR08.

Tube Cube¹⁶ is a new piece of equipment which, therefore, was not taken into consideration in the CP4 cost estimate. We stated that this was used, on average, 14 times per annum at a cost of £7,000 per deployment.

Similarly, manual interventions were not explicitly included in the CP4 cost estimate. We stated that we carried out manual interventions, on average, 250 times a year at a cost of £3,700 per incident.

Cost of point end and plain line service life reductions

We proposed extending the service life of point ends and plain line track affected by coal spillage by 50% to reflect our approach to maintaining low criticality routes in CP5. We also proposed reflecting in our cost estimate the fact that we are carrying out heavy refurbishment on these routes in CP5. Heavy refurbishment results in a lower whole-life cost solution and, as such, lower annual average depreciation costs (i.e. a reduction in the cost estimate). We also proposed increasing our estimate of the number of point ends and plain line track miles impacted by coal spillage due to the identification of an increased estimate of the number of coal loading / unloading locations. We welcomed feedback from stakeholders on this draft list of coal loading and unloading locations as part of the consultation.

¹³ 2011/12 prices, end CP4 efficiency

¹⁴ 2011/12 prices, end CP4 efficiency

¹⁵ Rail Vac is an on-rail machine that deploys an industrial vacuum extraction unit and has on board storage for 15 cubic metres of material.

¹⁶ Tube Cube is a road rail vehicle attachment for cleaning ballast.

Brief summary of consultation responses

Consultation Question 2

What is your view on the methodology and assumptions that we have applied in order to initially estimate coal spillage costs?

The majority of respondents disagreed with the methodology and assumptions set out in the consultation.

Many were concerned at the scale of the increase of the cost estimate, especially given that coal traffic volumes are forecast to decline during CP5 and the investment made by the industry to reduce coal spillage on the network.

Several respondents noted that the assumptions in the consultation were based on the views and expert judgement of Network Rail, and stated that they would have expected more of the assumptions to be evidence-based.

Some respondents provided more detail on specific aspects of the cost estimates. This is set out in Appendix 3.

Network Rail Conclusion

Following the publication of our consultation, ORR and Network Rail commissioned the independent reporter, Arup, to review the methodology and assumptions used to calculate our initial estimate of the cost impact of coal spillage on the network.

In its final report, Arup recommended the following refinements to our initial estimate of coal spillage costs:

- Reducing the yearly forecast of manual interventions to remedy coal spillage from 250 to 161, to reflect the fact that some interventions take place on week days and with less manpower.
- Reducing the cost of deploying Tube Cube from £7,000 to £4,000, to reflect the use of the machine with only a small site support staffing and reduced new materials.
- 50% of Rail Vac deployments (i.e. treatment of 13 point ends) should take place during midweek possessions, rather than weekend ones. The weekday cost should be reduced from £30,000 per treated point end to £20,000 per treated point end.
- Reducing the number of track miles and point ends impacted by coal spillage by 75% at locations where wagon rave cleaners have been installed.
- Categorising the loading and unloading locations as experiencing high, medium or low volumes of coal. Then using this categorisation as the basis for adjusting the number of impacted track miles and point ends at each location as follows:

Unloading points	Affected track miles	Affected point ends
High tonnage	30	31
Medium tonnage	22.5	23
Low tonnage	15	16
Loading points	Affected track miles	Affected point ends
High tonnage	24	25
Medium tonnage	18	19
Low tonnage	12	12

We propose accepting Arup's recommendations in full and refining our estimate of coal spillage costs. In particular, on reflection, we consider it appropriate to reflect the impact of wagon rake cleaners in our estimate of coal spillage costs. We consider that by doing so this provides an incentive for the industry to develop and implement initiatives with the aim of reducing coal spillage.

The table, below, compares the PR08 cost estimate, our initial cost estimate (based on IIP cost data), and our updated cost estimate. Our updated estimate of coal spillage costs takes account of Arup's recommendations; the latest list of coal loading / unloading locations (see Appendix 2), and is based on SBP cost data. In our updated cost estimate we have also corrected a small computational error which came to light when we were refining our estimate of coal spillage costs¹⁷.

Variance analysis - (2012/13 prices and CP5 efficiency), £m

Cost Category	PR08	CP5 (updated)	CP5 (initial estimate) per our December 2012 consultation
Cost of clean up and delay minutes	0.21	0.11	0.11
Cost of Rail Vac & Tube Cube & Manual interventions on points failures	0.57	1.14	1.58
Cost of point end service life reductions	1.03	1.38	1.79
Cost of Plain Line service life reductions	1.08	1.39	1.46
Total	2.88	4.02	4.95

¹⁷ In our consultation we proposed retaining the assumption that coal spillage reduces the asset life of plain track by 9%. However, we incorrectly used a value of 8.89% in our calculations. This resulted in an assumed reduction in asset life of 5.5 years, rather than 6.5 years (assuming the correct 9% value). We have corrected this error in our updated CP5 cost estimate. This correction gives rise to an increase in our coal spillage cost estimate of £0.23m, this equates to approximately 6% of the revised estimate (2012/13 prices and CP5 efficiency).

2.2. Coal loading and unloading locations

Summary of proposal in our consultation document

In our consultation, we identified a total of 40 coal loading / unloading locations, 17 more than identified in PR08. We stated that we did not believe that the number of coal loading / unloading points had increased to this extent between CP4 and CP5. Instead, we consider that some loading / unloading locations were omitted in error in PR08, resulting in the level of the CSC being understated.

Brief summary of consultation responses

Consultation Question 3

Do you have any comments on our initial list of coal loading and unloading points set out in Annex B?

In response to this question, many respondents suggested several changes to the coal loading / unloading points set out in the consultation document. These comments are set out in Appendix 3.

Network Rail Conclusion

We have summarised, below, the amendments which we have made to the list of coal loading / unloading locations set out in our consultation:

- Locations which have been removed:
 - Daw Mill deep mine;
 - Didcot power station;
 - Northumbrian opencast (Widdrington); and
 - Lackenby.
- Locations which have been added:
 - Port of Blyth; and
 - Eggborough power station.

These changes reflect feedback from respondents, Arup and our own views.

We discuss the rationale for the, above, amendments to the list of coal loading / unloading locations in more detail in Appendix 3.

The full updated list is set out in Appendix 2. This list also reflects the amended number of impacted plain line track miles and point ends as a result of implementing the recommendations set out in the Arup report.

2.3. Estimating the CP5 Coal Spillage Charge rate

Summary of proposal in our consultation document

Based on our initial estimate of the cost impact of coal spillage, we estimated a CSC rate for CP5 based on a 2014/15 base year (i.e. forecast coal spillage costs and traffic volumes in 2014/15). In order to do this we divided our initial estimate of the

cost impact of coal spillage by forecast 2014/15 coal traffic, this calculation gave rise to a CP5 CSC charge rate of 64.97 pence per 1000 gross tonne miles (2012/13 prices end CP5 efficiency).

This initial charge rate estimate is approximately 36 pence (123%) higher than the CP4 (year one) charge rate of 29.17 pence per 1000 gross tonne miles (2012/13 prices end CP5 efficiency).

Brief summary of consultation responses

Consultation Question 6

What is your view on how we have initially estimated the CP5 CSC rate?

The majority of respondents disagreed with the way in which we had estimated coal spillage costs in the consultation, and so disagreed with the estimated CSC rate.

Some respondents noted that the coal traffic volumes were forecast to decline throughout CP5 and, as a result, they would have expected a lower CSC rate than the CP4 level.

Many respondents considered that the proposed increase was significant to freight operators and, as such, would have expected more of the assumptions to be revisited rather than rolling-forward the existing approach.

Network Rail Conclusion

As noted, above, we have updated our initial estimate of coal spillage costs to reflect Arup's recommendations; the latest list of coal loading / unloading locations (see Appendix 2), and SBP cost data. We have also corrected a small computational error which came to light when we were refining our estimate of coal spillage costs¹⁸. We propose, however, retaining the methodology set out in the consultation document for calculating the CSC rate. Namely, dividing our estimate of coal spillage costs, which are predicated on a 2014/15 base year (i.e. year one of CP5) by 2014/15 traffic. This approach gives rise to a charge rate of 52.78 pence per 1000 gross tonne miles (2012/13 prices end CP5 efficiency).

We do not consider that because coal traffic volumes are forecast to decline in CP5, this implies that there should be a corresponding reduction in the level of the CP5 CSC rate. Rather, we believe that it is appropriate to calibrate the charge rate based on a single year's cost and traffic data and then let the income that we receive through the charge vary inline with outturn traffic volumes. Hence, if there were to be a material decline in coal traffic volumes in CP5, we would receive less income through the CSC because it is a variable charge levied on a thousand gross tonne mile (kgtm) basis, reflecting the reduced cost impact of coal spillage on the network.

We also consider that it was reasonable to use the assumptions established in CP4 as a baseline for setting the charge in CP5, making refinements, where appropriate. The assumptions developed in CP4 were established by the independent reporter,

¹⁸ In our consultation we proposed retaining the assumption that coal spillage reduces the asset life of plain track by 9%. However, we incorrectly used a value of 8.89% in our calculations. This resulted in an assumed reduction in asset life of 5.5 years, rather than 6.5 years (assuming the correct 9% value). We have corrected this error in our updated CP5 cost estimate. This correction gives rise to an increase in our coal spillage cost estimate of £0.23m, this equates to approximately 6% of the revised estimate (2012/13 prices end CP5 efficiency).

Halcrow, after several detailed site visits and we consider that these continue to be relevant when setting the charge for CP5.

The table, below, compares the CP4 (year one) charge rate, our initial CP5 CSC rate, and our updated CP5 CSC rate, after adjusting for price bases and efficiency.

Variance analysis (2012/13 prices end CP5 efficiency) , pence per coal KGTM

	PR08	CP5 (updated)	CP5 (initial estimate)
Coal ESI	29.17	52.78	64.97
Coal Other	29.17	52.78	64.97

We set out our proposed CP5 CSC rate in the draft price list appended to this document (see Appendix 1).

2.4. Coal Double count

In its consultation response, Freightliner queried how the cost impact of coal spillage is accounted for in our estimate of variable usage costs. It noted that the same Network Rail staff 'on the ground' carry our coal and non-coal related maintenance and thus it was not clear that coal spillage imposed an additional cost on the business.

In light of this query, we have reviewed the relationship between the VUC and Coal Spillage Charge in more detail. In particular, we have reviewed the extent to which the track modelling that we carried out in order to estimate average (passenger and freight) track variable usage costs, using VTISM and the Strategic Route Section Maintenance Model (SRSMM), reflects the cost impact of coal spillage.

As set out, above, further to the Arup review, we estimate the cost impact of coal spillage to be £4.02m per annum (2012/13 prices end CP5 efficiency). A breakdown of this cost estimate is shown in the table, below.

Estimate of CP5 coal spillage costs (2012/13 prices end CP5 efficiency)

Cost Category	£m
Cost of clean-up and delay minutes	0.11
Cost of Rail Vac, Tube Cube and manual interventions	1.14
Cost of point end service life reductions	1.38
Cost of Plain Line service life reductions	1.39
Total	4.02

The, above, estimate of coal spillage costs gives rise to a CSC rate of 52.78 pence per 1000 gross tonne miles or 32.80 pence per 1000 gross tonne kilometres¹⁹ (2012/13 prices and end CP5 efficiency).

We can now confirm that the majority of the coal spillage costs shown in the table, above, are included in our estimate of track variable usage costs. Specifically, maintenance activities (i.e. clean-up costs, Tube Cube and manual interventions) are accounted for in the SRSMM and the cost of point end and plain line track service life reductions are accounted for in VTISM. The cost of delay minutes and Rail Vac are not included in our variable usage cost modelling. VTISM and SRSMM do not estimate delay minutes and, due to its specialised nature, Rail Vac costs are contracted out by the Delivery Unit and thus excluded from the central cost modelling.

In summary, therefore, we estimate that approximately 85% of coal spillage costs are already accounted for in our initial CP5 average (passenger and freight) variable usage cost rate of £1.4637 per kgtkm (2012/13 prices and end CP5 efficiency).

In order to avoid recovering the cost impact of coal spillage twice, through the CSC and VUC, we propose netting off the relevant coal spillage costs (i.e. clean-up costs, Tube Cube, manual interventions and service life reductions) from our CP5 estimate of track variable usage costs, but retaining these cost components in the CSC so as to maintain the 'user pays' concept. We calculated the quantum of coal spillage costs to be netted off track variable usage costs by multiplying the volume of freight traffic carrying coal in the CP5 VUC model by the proposed CP5 Coal Spillage Charge rate, reduced pro-rate to reflect the coal spillage costs not included in the VUC cost modelling. This adjustment results in the exclusion of approximately £3.6m (2012/13 prices and end CP5 efficiency) from our estimate of track variable usage costs and reduces the CP5 average (passenger and freight) variable usage cost rate from £1.4637 per kgtkm to £1.4406 per kgtkm (2012/13 prices and end CP5 efficiency).

For the avoidance of doubt, we have netted off the relevant coal spillage costs from our estimate of total track variable usage costs, prior to these costs being allocated between the different passenger and freight vehicle types. We consider this to be appropriate because when we estimated total track variable usage costs we did so by deriving a single (passenger and freight) national average cost rate. We also consider that if we were to only net these costs off coal VUC rates, it would unduly discriminate against non-coal wagons. Coal spillage costs are incremental to the wear and tear costs recovered through VUC and, therefore, we would not consider it appropriate for a coal wagon to pay a lower VUC rate than an identical non-coal carrying wagon.

Therefore, although this 'double count' does not reduce our estimate of coal spillage costs, it does reduce our estimate of variable usage costs. Please see our VUC conclusions document²⁰ for further information in relation to CP5 VUC rates.

We have confirmed that this issue is limited to our initial estimate of CP5 track variable usage costs and that the CP4 VUC rates were not overstated. In PR08, we estimated track variable usage costs using the Infrastructure Cost Model (track module), not VTISM or the SRSMM. VTISM and the SRSMM are considerably more sophisticated than the ICM (track module). The ICM (track module) did not estimate

¹⁹ 1.6093 being the miles to kilometres conversion factor.

²⁰ Available at: <http://www.networkrail.co.uk/publications/delivery-plans/control-period-5/periodic-review-2013/pr13-closed-consultations/>

an accelerated reduction in asset life, or increased maintenance activity, as a result of coal spillage. Specifically, it estimated frequency of renewals based on service life and tonnage, and maintenance activity based on the relevant standards, none of which took account of coal spillage.

We are grateful to Freightliner for identifying this issue which we have now taken account of.

3. CP5 COAL SPILLAGE REDUCTION INVESTMENT CHARGE: CONCLUSIONS

3.1. Discontinuing the Coal Spillage Reduction Investment Charge

Summary of proposal in our consultation document

We proposed discontinuing the CSRIC in CP5. The principal reasons for this were that cleaning equipment has been installed at the busiest coal loading locations and that surplus funds remain available.

We also proposed to roll-forward the remaining fund into CP5 to facilitate the continued investment in cleaning equipment at coal loading locations, where appropriate.

Brief summary of consultation responses

Consultation Question 4

What is your view on our proposal to discontinue the CSRIC in CP5?

The majority of respondents agreed that the CSRIC should be discontinued for CP5, due to the decline in the number of schemes requiring funding, resulting from many of the key coal loading points already having been fitted with wagon cleaning equipment in CP4.

Several respondents, however, suggested that further analysis should be undertaken to determine the impact of this investment, and also suggested further consideration should be given to other ways of reducing coal spillage on the network.

Network Rail Conclusion

Following careful consideration of consultation responses, we propose that the CSRIC should be discontinued in CP5. As noted, above, the majority of respondents supported this approach.

We consider that, at the locations where coal wagon rave cleaners have been installed, this has contributed to a reduction in the level of coal spillage on the network. Hence, we are accepting Arup's recommendation to reflect this equipment in our estimate of coal spillage costs.

However, as noted, above, during the course of CP4, wagon cleaning equipment has been fitted at the busiest coal loading locations. For example, all the coal loading points at the Port of Immingham now have cleaning equipment installed (or are due to have cleaning equipment installed). Coal traffic volumes are also forecast to decline in the future which also reduces the need for the continued installation of wagon cleaning equipment.

At present, there is approximately £45,000 remaining in the coal spillage reduction investment fund. We propose that any surplus funds that remain at the end of CP4 should be retained for CP5 to fund, or part fund, any final initiatives to install cleaning equipment. If there were to be any money remaining in the fund at the end of CP5,

which we consider unlikely, we propose refunding this to freight operators in proportion to their respective contributions.

3.2. Coal Spillage Reduction Investment Fund

Summary of proposal in our consultation document

We stated that based on the 'burn rate' of the investment fund in CP4, if it were to be concluded that an investment fund should be retained for CP5, the maximum level on any fund should be in the region of £70,000 per annum.

Brief summary of consultation responses

Consultation Question 5

What is your view on the appropriate size of an annual investment fund in the event that it was considered appropriate to retain the CSRIC for CP5?

Many of the respondents considered that the £70,000 maximum annual investment fund was too high, and that a lower level would be more appropriate and could still fund several investment projects each year.

Network Rail Conclusion

If ORR were to conclude that the CSRIC should continue to be levied in CP5, we continue to believe that the charge should raise no more than £70,000 per annum. Moreover, following careful consideration of consultation responses, we believe that it would be reasonable to set the CSRIC at a level which aims to raise £40,000 per annum. However, as noted, above, we are not proposing retaining the CSRIC in CP5.

4. ANNUAL REVIEW OF CHARGES IN CP5: CONCLUSIONS

4.1. Coal Spillage Charge annual review mechanism

Summary of proposal in our consultation document

In our consultation, we proposed removing the CSC annual review mechanism. This mechanism requires annual analysis of the number of coal related points failures and for Network Rail to consult with the industry in relation to how the CSC should be adjusted, in light of this. We considered that this imposed a disproportionate administrative burden on the industry. We also considered that the current adjustment methodology is flawed, and so it would be inappropriate to retain this in CP5.

Brief summary of consultation responses

Consultation Question 7

What is your view on our proposal to cease adjusting the CSC rate annually in CP5 based on the number of coal related points failures?

The majority of respondents considered that the annual adjustment of the CSC should remain for CP5, in order to incentivise all industry parties to continue to reduce coal spillage on the network.

Many respondents recognised Network Rail's concern that the current mechanism is flawed, and considered that steps could be taken to rectify this.

Network Rail Conclusion

Whilst we understand why some respondents considered that the CSC annual adjustment mechanism should be retained, following careful consideration of consultation responses, we are proposing that it should be removed for CP5. The primary reason for this is that we consider reviewing the level of the charge on an annual basis imposes disproportionate administration costs on the industry. It has not been proposed that the level of any other track access charges due to be levied in CP5 will be reviewed, in consultation with the industry, on an annual basis. We, therefore, do not consider it appropriate to retain an annual review mechanism for a track access charge which accounts for approximately 3% of the total income that we receive from freight operators.

In relation to the impact on incentives for the industry to reduce coal spillage, we do not believe that removing this mechanism will have a materially detrimental affect in this regard. In our opinion, the number of coal related points failures was adopted as a pragmatic proxy for the level of coal spillage on the network. It is, however, unlikely to appropriately reflect industry initiatives (e.g. the installation of cleaning equipment) to reduce the level of coal spillage. We consider that such initiatives are better reflected when the CSC is reviewed as part of the period review process. Therefore, if as part of the periodic review there continues to be scope to reflect such initiatives, there will continue to be an incentive for the industry to reduce the level of coal spillage.

If ORR were to determine that the CSC annual review mechanism should be retained, we strongly consider that it should be normalised by coal traffic volumes, which appear to be the main driver of the level of coal related points failures in CP4. We note, however, that this adjustment would serve to introduce further complexity into a mechanism which we currently consider imposes disproportionate administration costs. Therefore, we consider that this also potentially lends weight to the view that the annual review mechanism should be removed in CP5.

4.2. Coal Spillage Reduction Investment Charge annual review mechanism

Summary of proposal in our consultation document

We noted that we are also required to consult with freight operators in relation to the allocation of the investment fund generated by the CSRIC and whether the charge should continue in the following year.

We stated that like the CSC, whilst we understand why the annual review mechanism was incorporated into the CSRIC in PR08, we considered that it also placed a disproportionate administrative burden on the industry. Hence, if the CSRIC were to continue in CP5, we believed that there would be considerable merit in not reviewing the level of charge on an annual basis.

Brief summary of consultation responses

Consultation Question 8

What is your view on our proposal that if the CSRIC were to be levied in CP5 there would be considerable merit in setting the level of the charge for the duration of the control period?

In general, respondents agreed that the CSRIC should be set for the duration of the control period, if the charge were to be retained.

However, DB Schenker considered that it should not be fixed as, if this had been the case in CP4, Network Rail would have collected a considerable excess of money for the investment fund.

Network Rail Conclusion

As noted, above, we are proposing discontinuing the CSRIC in CP5. However, if ORR were to determine that the CSRIC should be retained for CP5, we propose that it should be set for the duration of the control period. We continue to believe that reviewing the level of the charge on an annual basis imposes disproportionate administration costs on the industry. It is also inconsistent with the approach to setting other track access charges, which are set for the duration of the control period. For the avoidance of doubt, we propose continuing to consult with freight operators in relation to the allocation of the remaining investment fund to any future projects.

We consider that the likelihood of the investment fund accruing excess monies, if it were to be retained in CP5, is significantly reduced because of the experience gained in CP4 in relation to an appropriate level of funding for coal spillage reduction investment schemes. As noted, above, we also propose that, in the event that the

investment fund had not been fully utilised by the end of CP5, it should be refunded to operators in proportion to their respective contributions.

5. COMBINING THE COAL SPILLAGE CHARGE WITH THE PROPOSED FREIGHT-SPECIFIC CHARGE: CONCLUSIONS

5.1. Combining the Coal Spillage Charge with the proposed Freight-Specific Charge

Summary of proposal in our consultation document

In our December 2012 consultation, we proposed reviewing whether or not the CSC remains the best mechanism for recovering coal spillage costs. An alternative option would be to recover these costs through the new Freight-Specific Charge which ORR recently determined should be introduced during CP5. Recovering costs through the Freight-Specific Charge would be consistent with the fact that coal spillage is a 'freight avoidable cost', the cost methodology that ORR used to inform the level of the Freight-Specific Charge. Combining the CSC with the Freight-Specific Charge would also serve to simplify the charging structure.

We stated, however, that if ORR deems that ESI coal is able to bear the Freight-Specific Charge and coal transported for other purposes is not, then it would be more appropriate to retain the CSC in CP5 in order to avoid coal spillage costs being recovered through two separate charges.

In January 2013, ORR decided that it would levy a Freight-Specific Charge on ESI Coal, spent nuclear fuel and iron ore (i.e. it would not be levied on coal transported for other purposes).

Brief summary of consultation responses

Consultation Question 1

What is your view on potentially recovering coal spillage costs through any new freight-specific charge, rather than a separate CSC?

The majority of respondents agreed with our proposal in principle. However, they noted that since the consultation was issued, ORR had concluded that only ESI coal would be charged a Freight-Specific Charge. They, therefore, agreed that it would be appropriate to recover coal-related costs separately (i.e. through the CSC).

Several respondents noted that, if combined with the Freight-Specific Charge, the CSC would be recovered on a per tonne km basis, which they considered was inappropriate as the length of journey is not correlated with the amount of coal spillage.

Network Rail Conclusion

As noted by respondents, in its January 2013 decision document ORR determined that the new Freight-Specific Charge should be levied on ESI coal but not coal transported for other purposes. Hence, it would not be possible to fully recover the cost impact of coal spillage through the Freight-Specific Charge in CP5. We do not consider it appropriate to recover coal spillage costs through two separate track access charges (i.e. the CSC and the Freight-Specific Charge). Therefore, following the careful consideration of consultation responses, we propose that coal spillage

costs should continued to be recovered through the CSC, rather than the new Freight-Specific Charge, in CP5.

We note that in its January 2013 decision document, ORR has determined that the Freight-Specific Charge should be levied on a tonne mile basis rather a tonne lifted basis. We continue to support levying the Freight-Specific Charge on a tonne mile basis because, in our view, there is likely to be a positive relationship between length of haul and quantum of avoidable costs. Moreover, levying the charge on a tonne mile basis would be consistent with how other freight track access charges are levied and would, therefore, be inexpensive to implement from a Network Rail track access billing perspective. We also support continuing to levy of the CSC on a tonne mile basis for broadly the same reasons.

6. CONCLUSION AND NEXT STEPS

Consistent with our general approach for all existing track access charges, as part of PR13 we have reviewed whether the current arrangements with respect to coal charges continues to be appropriate. Specifically, following consultation, we have:

- Reviewed the existing estimate of coal spillage costs and proposed a revised CSC rate of 52.78 pence per 1000 gross tonne miles (2012/13 prices end CP5 efficiency) reflecting the recommendations of the independent reporter, Arup, updated SBP cost data, and the latest list of coal loading and unloading locations.
- Reviewed whether the CSRIC should continue to be levied in CP5 and are proposing that it should be discontinued.
- Reviewed whether the CSC annual adjustment mechanism should be retained and are proposing that it should be removed in CP5.
- Reviewed whether the CSC should be combined with the new Freight-Specific Charge and are proposing that the CSC should remain separate.

Re-calibrating the CSC should improve cost reflectivity and help to ensure that costs are recovered from those who cause them to be incurred.

We will continue to engage with stakeholders in relation to re-calibrating the CSC and CSRIC for CP5.

Ultimately, any decision in relation to coal charges in CP5 is a matter for ORR. ORR will issue its Draft Determination, which will cover coal charges, in June 2013 before publishing its final determination in October 2013. In December 2013, ORR will audit and approve track access charge price lists, including the coal price list, before the revised charge rates are implemented on 1 April 2014.

The principal future milestones for PR13 are set out in the table, below:

Principal milestones	
12 June 2013	ORR Draft Determination
31 October 2013	ORR Final Determination
By 31 December 2013	Final price lists made available
1 April 2014	Implement new coal charge rates

APPENDIX 1 – DRAFT CSC PRICE LIST

COAL SPILLAGE CHARGE RATE

Pence Per KGTM

2012/13 prices end CP5 efficiency

Commodity Type	Coal spillage charge rate
Coal ESI	52.78
Coal Other	52.78

APPENDIX 2 – AMENDED LIST OF COAL LOADING AND UNLOADING POINTS

<i>Location</i>	<i>Track Miles</i>	<i>Point ends</i>	<i>Location type</i>	<i>Annual tonnage</i>	<i>Fitted with wagon rave cleaner?</i>
Aberthaw	7.5	8	Power station	H	Yes
Uskmouth	15	16	Power station	L	
Longannet	30	31	Power station	H	
Port of Hull	18	19	Port	M	
Ferrybridge	30	31	Power station	H	
Drax	30	31	Power station	H	
West Burton	30	31	Power station	H	
Cottam	30	31	Power station	H	
Port of Liverpool	24	25	Port	H	
Ellesmere port	24	25	Port	H	
Ratcliffe	15	16	Power station	L	
Fiddlers Ferry	30	31	Power station	H	
Rugeley	30	31	Power station	H	
Avonmouth (Bennets) industrial coal	12	12	Loading point	L	
Avonmouth (BBHT)	6	6	Loading point	H	Yes
Avonmouth (Portbury)	6	6	Port	H	Yes
Port of Newport	3	3	Port	L	Yes
Hunterston	12	12	Port	L	
Immingham	6	6	Port	H	Yes
Port of Tyne	6	6	Port	H	Yes
Redcar port	24	25	Port	H	
Ayrshire opencast (Killoch)	18	19	Loading point	M	
Ayrshire opencast (Chalmerston)	12	12	Loading point	L	
Ayrshire opencast (New Cumnock)	18	19	Loading point	M	
Ayrshire opencast (Ravenstruther)	12	12	Loading point	L	
Earls Seat	12	12	Loading point	L	
Northumbrian opencast (Butterwell)	12	12	Loading point	L	
Wales opencast (Cwmbargoed)	18	19	Loading point	M	
Wales opencast (Onllwyn)	18	19	Loading point	M	
Wales opencast (Cwmgwrach)	12	12	Loading point	L	
Wales opencast (Gwaun-Cae-Gurwen)	12	12	Loading point	L	
Yorkshire / Notts deep mines (Kellingley)	18	19	Loading point	M	
Yorkshire / Notts deep mines (Thoresby)	18	19	Loading point	M	
Yorkshire / Notts deep mines (Hatfield)	24	25	Loading point	H	
Scunthorpe (Tata) - industrial coal	22.5	23	Delivery point	M	
Hope (Lafarge) - industrial coal	15	16	Delivery point	L	
Eggborough	30	31	Power station	H	
Port of Blyth	3	3	Port	L	Yes
Total	663	686			

APPENDIX 3 – RESPONSE TO DETAILED POINTS RAISED BY STAKEHOLDERS

Combining the CSC with the freight-specific charge

Consultation Question 1

What is your view on potentially recovering coal spillage costs through any new freight-specific charge, rather than a separate CSC?

CoalPro and Coallmp acknowledged the advantages of incorporating the CSC into the Freight-Specific Charge, if both market segments were deemed able to bear the cost.

DB Schenker noted that the Freight-Specific Charge is only due to be levied on ESI Coal, Iron Ore and Nuclear market segments and, therefore, it would not be practical to recover the cost of coal spillage through the Freight-Specific Charge.

Drax Power noted that, if the CSC were to be incorporated into the Freight-Specific Charge, it should be transparent that it is clearly linked to coal.

Rail Freight Group noted that although they previously wanted the charges combined, it understands that as the Freight-Specific Charge will not be applied to non-ESI coal, why Network Rail would want to keep these charges separate. Rail Freight Group also noted the importance of excluding costs associated with coal spillage in the calculation of freight avoidable costs in order to avoid a double count. It requested that this is verified.

Freightliner noted that the Freight-Specific Charge is calculated on the basis of what additional charges the market can bear. However, this affordability test does not take account of increases in the CSC rate. Freightliner, therefore, requested more information regarding how the cost of coal spillage is separately accounted for in Network Rail's calculation of variable costs.

CoalPro, Freightliner, GB Railfreight and Coallmp noted that it may not be appropriate to combine the CSC with the Freight-Specific Charge as the Freight-Specific Charge is due to be levied on a per tonne km basis. These stakeholders considered that coal spillage costs should be recovered on a tonnes lifted basis as, in their opinion, there is no real correlation between coal spillage and journey distances.

Network Rail response

As noted by respondents, in its January 2013 decision document ORR determined that the new Freight-Specific Charge should be levied on ESI coal but not coal transported for other purposes. Hence, it would not be possible to fully recover the cost impact of coal spillage through the Freight-Specific Charge in CP5. We do not consider it appropriate to recover coal spillage costs through two separate track access charges (i.e. the CSC and the Freight-Specific Charge). Therefore, following careful consideration of consultation responses, we propose that coal spillage costs should continued to be recovered through the CSC, rather than the new Freight-Specific Charge, in CP5.

We note that in its January 2013 decision document ORR determined that the Freight-Specific Charge should be levied on a tonne mile basis rather a tonne lifted

basis. We continue to support levying the Freight-Specific Charge on a tonne mile basis because, in our view, there is likely to be a positive relationship between length of haul and quantum of avoidable costs. Moreover, levying the charge on a tonne mile basis would be consistent with how other freight track access charges are levied and also be inexpensive to implement from a Network Rail track access billing perspective. We also support continuing to levy of the CSC on a tonne mile basis for broadly the same reasons.

We can confirm that our estimate of freight avoidable costs, developed by L.E.K. Consulting (L.E.K.), to inform the level of the Freight-Specific Charge, was careful not to 'double count' costs recovered through existing track access charges. L.E.K. developed 'gross' (including costs recovered through existing track access charges) and 'net' (excluding including costs recovered through existing track access charges) cost estimates. The 'net' cost estimates were used and adjusted by ORR for the purpose of setting the Freight-Specific Charge.

Coal 'double count'

In its consultation response, Freightliner queried how the cost impact of coal spillage is accounted for in our estimate of variable usage costs. It noted that the same Network Rail staff 'on the ground' carry our coal and non-coal related maintenance and thus it was not clear that coal spillage imposed an additional cost on the business.

In light of this query, we have reviewed the relationship between the VUC and CSC in more detail. In particular, we have reviewed the extent to which the track modelling that we carried out in order to estimate average (passenger and freight) track variable usage costs, using VTISM and the Strategic Route Section Maintenance Model (SRSMM), reflects the cost impact of coal spillage.

As set out, above, further to the Arup review, we estimate the cost impact of coal spillage to be £4.02m per annum (2012/13 prices end CP5 efficiency). A breakdown of this cost estimate is shown in the table, below.

Estimate of CP5 coal spillage costs (2012/13 prices end CP5 efficiency)

Cost Category	£m
Cost of clean-up and delay minutes	0.11
Cost of Rail Vac, Tube Cube and manual interventions	1.14
Cost of point end service life reductions	1.38
Cost of Plain Line service life reductions	1.39
Total	4.02

The, above, estimate of coal spillage costs gives rise to a CSC rate of 52.78 pence per 1000 gross tonne miles or 32.80 pence per 1000 gross tonne kilometres²¹ (2012/13 prices and end CP5 efficiency).

²¹ 1.6093 being the miles to kilometres conversion factor.

We can now confirm that the majority of the coal spillage costs shown in the table, above, are included in our estimate of track variable usage costs. Specifically, maintenance activities (i.e. clean-up costs, Tube Cube and manual interventions) are accounted for in the SRSMM and the cost of point end and plain line track service life reductions are accounted for in VTISM. The cost of delay minutes and Rail Vac are not included in our variable usage cost modelling. VTISM and SRSMM do not estimate delay minutes and, due to its specialised nature, Rail Vac costs are contracted out by the Delivery Unit and thus excluded from the central cost modelling.

In summary, therefore, we estimate that approximately 85% of coal spillage costs are already accounted for in our initial CP5 average (passenger and freight) variable usage cost rate of £1.4637 per kgtkm (2012/13 prices and end CP5 efficiency).

In order to avoid recovering the cost impact of coal spillage twice, through the Coal Spillage Charge and VUC, we propose netting off the relevant coal spillage costs (i.e. clean-up costs, Tube Cube, manual interventions and service life reductions) from our CP5 estimate of track variable usage costs, but retaining these cost components in the CSC so as to maintain the 'user pays' concept. We calculated the quantum of coal spillage costs to be netted off track variable usage costs by multiplying the volume of freight traffic carrying coal in the CP5 VUC model by the proposed CP5 Coal Spillage Charge rate, reduced pro-rate to reflect the coal spillage costs not included in the VUC cost modelling. This adjustment results in the exclusion of approximately £3.6m from our estimate of off track variable usage costs and reduces the CP5 average (passenger and freight) variable usage cost rate from £1.4637 per kgtkm to £1.4406 per kgtkm (2012/13 prices and end CP5 efficiency).

For the avoidance of doubt, we have netted off the relevant coal spillage costs from our estimate of total track variable usage costs, prior to these costs being allocated between the different passenger and freight vehicle types. We consider this to be appropriate because when we estimated total track variable usage costs we did so by deriving a single (passenger and freight) national average cost rate. We also consider that if we were to only net these costs off coal VUC rates, it would unduly discriminate against non-coal wagons. Coal spillage costs are incremental to the wear and tear costs recovered through VUC and, therefore, we would not consider it appropriate for a coal wagon to pay a lower VUC rate than an identical non-coal carrying wagon.

Therefore, although this 'double count' does not reduce our estimate of coal spillage costs, it does reduce our estimate of variable usage costs. Please see our VUC conclusions document²² for further information in relation to CP5 VUC rates.

We have confirmed that this issue is limited to our initial estimate of CP5 track variable usage costs and that the CP4 VUC rates were not overstated. In PR08, we estimated track variable usage costs using the Infrastructure Cost Model (track module), not VTISM or the SRSMM. VTISM and the SRSMM are considerably more sophisticated than the ICM (track module). The ICM (track module) did not estimate an accelerated reduction in asset life, or increased maintenance activity, as a result of coal spillage. Specifically, it estimated frequency of renewals based on service life and tonnage, and maintenance activity based on the relevant standards, neither of which took account of coal spillage.

²² Available at: <http://www.networkrail.co.uk/publications/delivery-plans/control-period-5/periodic-review-2013/pr13-closed-consultations/>

We are grateful to Freightliner for identifying this issue which we have now taken account of.

Coal spillage cost estimate methodology

Consultation Question 2

What is your view on the methodology and assumptions that we have applied in order to initially estimate coal spillage costs?

Respondents generally expressed concern in relation to the scale of the increase in coal spillage costs set out in our consultation document.

DB Schenker expressed concern that the costs attributed to coal spillage were estimated to be higher in CP5 than CP4 despite:

- A reduction in the average annual number of coal spillage related points failures;
- Terminal operators and coal suppliers and forwarders investing in equipment (including new wagons) and practices designed to reduce coal spillage; and
- A forecast decline in coal transported by rail.

It also considered that increases in many of the cost categories were based solely on Network Rail's judgement, views or experience, with a lack of further explanation or detail. Freightliner and GB Railfreight also considered that there was a lack of evidence for many of the cost categories.

Freightliner shared a similar view to DB Schenker. It disagreed that the costs of coal spillage should increase, as it considered:

- Network Rail has produced no historical evidence or forward looking plans to back up its methodology;
- There is a lack of transparency around what assets have been replaced, and whether these replacements have been prematurely brought forward due to the effects of coal spillage;
- It does not believe that the installation of sweeping equipment at terminals has made no difference to coal spillage levels;
- Coal traffic will reduce in CP5 due to environmental taxes on coal use coupled with increasing track access charges;
- It is unclear why the cost of renewing a point end has increased when Network Rail should have achieved 23.8% efficiency savings on renewals during CP4;
- The cost of using Rail Vac has not doubled; and
- Coal only falls off the wagon once, so the number of loading points is relevant in the calculation.

Rail Freight Group considered that the methodology was incorrect because it uses different time periods for costs and volumes. It noted costs categories such as Rail Vac, used CP4 costs based on coal volumes for each year of CP4. Therefore, to calculate the per wagon rate one should divide by CP4 traffic volumes. Instead, the rate in the consultation is calculated by dividing by CP5 forecasts and so the per wagon rate is overstated.

Network Rail response

As stated, above, we propose accepting in full the recommendations of the independent reporter, Arup, with respect to refining our estimate of coal spillage costs. These refinements are set out, below:

- Reducing the yearly forecast of manual interventions to remedy coal spillage from 250 to 161, to reflect the fact that some interventions take place on week days and with less manpower.
- Reducing the cost of deploying Tube Cube from £7,000 to £4,000, to reflect the use of the machine with only a small site support staffing and reduced new materials.
- 50% of Rail Vac deployments (i.e. treatment of 13 point ends per annum) should take place during midweek possessions, rather than weekend ones. The weekday cost should be reduced from £30,000 per treated point end to £20,000 per treated point end.
- Reducing the number of track miles and point ends impacted by coal spillage by 75% at locations where wagon rave cleaners have been installed.
- Categorising the loading and unloading points as experiencing either high, medium or low volumes of coal. Then using this categorisation as the basis for adjusting the number of impacted track miles and point ends at each location as follows:

Unloading points	Affected track miles	Affected point ends
High tonnage	30	31
Medium tonnage	22.5	23
Low tonnage	15	16
Loading points	Affected track miles	Affected point ends
High tonnage	24	25
Medium tonnage	18	19
Low tonnage	12	12

The table, below, compares the PR08 cost estimate, our initial cost estimate (based on IIP cost data), and our updated cost estimate. Our updated estimate of coal spillage costs takes account of Arup's recommendations; the latest list of coal loading / unloading locations (see Appendix 2), and is based on SBP cost data. In our updated cost estimate we have also corrected a small computational error which came to light when we were refining our estimate of coal spillage costs²³.

²³ In our consultation we proposed retaining the assumption that coal spillage reduces the asset life of plain track by 9%. However, we incorrectly used a value of 8.89% in our calculations. This resulted in an assumed reduction in asset life of 5.5 years, rather than 6.5 years (assuming the correct 9% value). We have corrected this error in our updated CP5 cost estimate. This correction gives rise to an increase in

Variance analysis - (2012/13 prices end CP5 efficiency), £m

Cost Category	PR08	CP5 (updated)	Variance (£m)	Variance (%)	CP5 (initial estimate)	Variance (£m)	Variance (%)
Cost of clean up and delay minutes	0.21	0.11	-0.10	-47.3%	0.11	-0.10	-47.3%
Cost of Rail Vac & Tube Cube & Manual interventions on points failures	0.57	1.14	+0.57	+101.1%	1.58	+1.01	+178.5%
Cost of point end service life reductions	1.03	1.38	+0.34	+33.4%	1.79	+0.76	+74%
Cost of Plain Line service life reductions	1.08	1.39	+0.32	+29.3%	1.46	+0.39	+36%
Total	2.88	4.02	+1.13	+39.3%	4.95	+2.06	+71.5%

We consider that the level of analysis set out in the consultation to be broadly proportionate to the amount of income that we receive through the charge, which equates to approximately 3% of the total income that we receive from freight operators.

We also note that Arup accept the principle of coal dust reducing the service life of plain line track and point ends, and that our depreciation assumptions in this respect are reasonable. Ballast contaminated with coal will accelerate track geometry deterioration, requiring more frequent tamping, stone blowing (and associated ballast replenishment, regulation etc) and manual geometry correction of track faults, and, therefore, brings forward renewals or refurbishment.

We do not agree with Rail Freight Group that our calculation methodology was incorrect and that the time periods we used were inconsistent. For the avoidance of doubt, we calibrated the charge based on a 2014/15 base year (i.e. divided our estimate of coal spillage costs in 2014/15 by forecast coal traffic in 2014/15). However, we estimated costs such as Rail Vac based on our experience, on average, in CP4, which we considered to be a reasonable basis for estimating these costs in 2014/15.

Because we are calculating the CP5 CSC rate based on a 2014/15 base year, long term coal traffic forecasts are not a relevant consideration when calculating the charge rate. Any decline in traffic will, however, be reflected in the income that we receive through the CSC in CP5. Therefore, if coal traffic volumes were to decline steeply, we would receive less CSC income reflecting the reduced cost impact of coal spillage on the network.

We would also like to clarify that the efficiency targets for track are not restricted to unit costs. We have provided ORR with full explanations of how we intend to meet the efficiency targets for track in CP4.

our coal spillage cost estimate of £0.23m, this equates to approximately 6% of the revised estimate (2012/13 prices end CP5 efficiency).

Finally, we would reiterate that the coal spillage cost estimate has not increased as a result of falling traffic volumes, rather additional coal loading / unloading locations have been identified, which were excluded in error in PR08.

Cost of clean up and delay minutes

Drax Power expressed concern that the cost of new ballast for remedying a points failure that does not cause delay minutes is £90, but the increase in the cost from CP4 is £180.

DB Schenker stated that it would not expect the entire costs of points failures to be recovered through the CSC when the presence of coal had been a contributory factor, rather than a determinant one.

DB Schenker did not consider that the 178 coal related points failures figure set out in the consultation was an appropriate figure. It considers that in 2011/12, there were 231 points failures, which was much larger than the average figure. DB Schenker suggested that a more appropriate figure may be derived from the average number of points failures in 2009/10 and 2010/11 (154 and 150, respectively). It suggested that it may even be appropriate to use the 150 figure, as coal traffic is expected to decrease over CP5 and many coal fired power stations are due to close or use alternative fuels.

DB Schenker had also analysed information provided by Network Rail which details the type of points failure, the likely cause, and the remedial action taken. It notes that, in this information, there appears to be no instances where new ballast has been provided, and that the replacement work is mostly on switchblades and other moveable parts, rather than ballast. It, therefore, believes that this element should be excluded from the cost estimate.

Network Rail response

We propose retaining the estimate of, coal related clean up and delay minute costs set out in our consultation. We note that this aspect of our cost estimate was reviewed and accepted by the independent reporter, Arup. We also note that the cost of clean-up and delay minutes constitutes a very small (3%) proportion of our updated cost estimate.

In response to the representation from Drax Power, we doubled the ballast cost of £90 to reflect planning and possession costs; this approach was broadly accepted in PR08 and has been used elsewhere when building up our CP5 cost estimate.

We consider that basing our cost estimate on the number of 'coal related' points failures continues to be broadly reasonable. As set out in our consultation, we consider that this approach is consistent with PR08 and is arguably less subjective than identifying whether each points failure would have occurred in the absence of coal spillage. We consider that points failures are a pragmatic proxy for the wider impact of coal spillage on the network and that assessments made in a trackside environment are bound to involve a degree of judgement.

We also consider that it is reasonable to retain our estimate of 178 coal related points failures for purpose developing the CP5 CSC rate. This is a reasonable reflection of the average number of coal related points failures in the first three years of CP4 and we consider that it is likely to be a broadly reasonable estimate of the number of coal

related points failures in 2014/15 – the base year on which we are calibrating the CP5 CSC rate. We note that there were 223 coal related points failures in 2012/13 indicating that, if anything, our estimate may be a conservative one.

We have confirmed that where points fail due to coal spillage, it is not uncommon for replacement work to include new ballast, although this may not be clear from the Fault Management System (FMS) report. We also note that Arup considered this aspect of our cost estimate to be reasonable and, where points have failed due to coal spillage, this is not always noted in FMS. We consider that the fact some coal related points failures are not included in FMS indicates that this aspect of our cost estimate may be a conservative one.

Cost of Rail Vac, Tube Cube and manual interventions

In relation to the Rail Vac cost estimate, Drax Power considered that changing from treating two sets of points per weekend possession to one set seemed onerous, and that the evidence presented stated that it *typically* treats one set of points, so on occasion it must treat more than one. It suggested using the average utilisation figures from CP4.

DB Schenker noted that, in LNE, the points which are subject to repeat failures tend to be in close proximity which may explain why ORR's reporters determined that two sets of points can be treated during one weekend possession.

DB Schenker stated that there is only one set of points in Wales that has been subject to repeat failures. It, therefore, concluded that the quoted annual average of 14 deployments of Rail Vac in Wales must include deployments which are not related to coal spillage. It also considered that the number of Rail Vac deployments elsewhere should be reviewed and consequently reduced.

In terms of Tube Cube and manual interventions, Drax Power queried whether the costs associated with each of these will be removed from the Network Rail estimate of freight avoidable costs. It has also requested an explanation as to why the materials for manual intervention are £500, compared to £90 for Tube Cube and Rail Vac.

DB Schenker noted that the Tube Cube appears to not be deployed across the entire network, and therefore assumes that on other routes, manual interventions are used instead. Considering that manual interventions are half the cost of deploying Tube Cube, DB Schenker questioned whether Tube Cube is an efficient and cost effective option, and therefore why freight operators should fund these increased costs through the CSC.

DB Schenker also questioned why the number of manual interventions on the LNE route is 6 times higher than the next highest route, Scotland, which also carries a large volume of coal traffic. It therefore questioned whether the LNE route has also included in its manual interventions total the number of 'clean-up' operations in response to points failures.

Network Rail response

As noted, above, we propose accepting in full the recommendations of independent reporter, Arup, with respect to refining our estimate of coal spillage costs. These refinements include retaining the assumption that Rail Vac is deployed 26 times per

annum, however, that 13 of these are treated at a cost of £20,000 per point end, rather than £30,000 per point end.

We have confirmed that the Rail Vac deployments attributed to Wales in our consultation are appropriate. However, we would clarify that we have not assumed that Rail Vac is deployed where point ends fail repeatedly (this was the assumption developed in PR08 but not what we assumed in our consultation document). For the purpose of re-calibrating the CSC for CP5 we assumed that Rail Vac is deployed where the level of coal contamination in the ballast is such that there is a loss in the integrity, resulting in repeated track geometry faults.

We can confirm that our estimate of freight avoidable costs, developed by L.E.K., to inform the level of the Freight-Specific Charge, was careful not to 'double count' costs recovered through existing track access charges. L.E.K. developed 'gross' (including costs recovered through existing track access charges) and 'net' (excluding costs recovered through existing track access charges) cost estimates, the 'net' cost estimates were used and adjusted by ORR for the purpose of setting the Freight-Specific Charge.

In response to the representation from Drax Power, in our consultation, we did not assume a materials cost of £90 for Tube Cube and Rail Vac. Rather, we assumed that it cost £30,000 per Rail Vac deployment (including materials) and £7,000 per Tube Cube deployment (including materials). However, as noted, above, we have accepted in full Arup's recommendations in relation to refining these cost estimates.

The "tool" we use to remedy coal spillage is dependant on the level of contamination and ease of removing it. Where we have assumed that Tube Cube is deployed in response to coal spillage, we consider this to be an efficient and effective means of remedial action.

As noted, above, we have accepted Arup's recommendation in relation to the frequency of manual interventions. This reduces the total number of manual interventions from 250 to 161, and those on LNE from 190 to 113. We can confirm, however, that the estimate of manual interventions set out in our consultation was limited to those associated with coal spillage.

Cost of point end and plain line service life reductions

DB Schenker was critical of the fact that the refurbishment undertaken by Network Rail in an attempt to extend asset lives of point ends and plain line track resulted in increased costs being allocated to coal spillage in the short and medium term. DB Schenker, therefore, suggested that the service life reductions used in the calculations should be based on current service life reductions and not Network Rail's decision to extend the service life of point ends.

Furthermore, DB Schenker noted that the number of point ends per mile estimated by Network Rail is a national average value. However, it considered that there are significant concentrations of point ends in and around passenger stations and termini where coal carrying freight trains never run. It believed that this will lead to a significantly higher cost estimate in relation to the service life reduction. It has, therefore, suggested that Network Rail should exclude these point ends from its estimate, as well as point ends which are funded through connection agreements with third parties as, otherwise, this could give rise to a significant level of double-recovery. DB Schenker also suggested that Network Rail use its asset information to derive actual numbers of relevant point ends, located within the relevant distance

from each site, which it considers should be less than the 20 and 25 mile figure used in CP4.

Drax Power questioned why there was no allowance for the reduction in coal spillage due to the investment in wagon cleaning equipment during CP4 along with the expectation of further reductions as a result of power generator interventions as mentioned in the consultation document. DB Schenker echoed the view, and stated that it would have expected the distance at which coal spillage becomes exhausted to have reduced, considering the significant investment by freight operators, terminal operators and coal suppliers and forwarders in equipment and practices to reduce coal spillage.

Network Rail response

We would like to clarify the fact that our assumption in relation to the refurbishment of plain line track and point ends on low criticality routes, which is consistent with our CP5 track policy, serves to reduce the annual depreciation costs, and thus charges, associated with coal spillage. It does not result in increased costs being allocated to coal spillage in the short and medium term, as suggested by DB Schenker. For example, we assume an SBP plain line track cost of £753 per metre and a 45 year asset life before heavy refurbishment, which results in a cost of approximately £17 per metre per annum ($\text{£753 per metre} / 45 \text{ years} = \text{£17 per metre per annum}$). However, when we incorporate the impact of heavy refurbishment, this increases the plain line track cost to £973 per metre and extends the asset life to 67.5 years, giving rise to a cost of approximately £14 per metre per annum ($\text{£973 per metre} / 67.5 \text{ years}$).

We recognise that, as suggested by DB Schenker, it would be preferable to base the cost estimate on the precise number of point ends outside each coal loading / unloading location. However, at present, we do not have sufficiently granular information in this respect to inform our updated cost estimate. We have, however, carried out initial analysis of the number of point ends per track mile, weighted by the equivalent gross tonne miles of loaded coal wagons in ACTRAFF. This indicates a slightly higher point end per mile rate (1.10) than the value (1.04) included in our consultation document. We propose retaining the 1.04 value set out in our consultation and do not consider this to be overstated. If anything, based on our initial analysis, it could be slightly conservative.

As noted, above, we have accepted in full Arup's recommendations in relation to refining our estimate of coal spillage costs. These recommendations include reflecting the impact of cleaning equipment and reducing the number of affected track miles / point ends at medium and low tonnage loading / unloading locations.

Coal loading and unloading locations

Consultation Question 3

Do you have any comments on our initial list of coal loading and unloading points set out in Annex B?

GB Railfreight, Coallmp, Freightliner and CoalPro informed us that Didcot power station is due to close in March 2013 (prior to CP5). Coallmp, Freightliner and CoalPro have also noted that Cockerhale power station will close prior to CP5.

Coallmp suggested that we verify the list of loading / unloading points with freight operators as it has noticed a few errors which were immediately apparent; Ironbridge and Lynemouth power stations are missing and some supply locations may need reviewing as to their inclusion in this list.

Freightliner considered that Chalmerston should be excluded from the list as it only experiences infrequent rail traffic.

GB Railfreight and Freightliner noted that Widdrington has ceased supplying coal and should therefore be excluded from the list.

GB Railfreight has informed us that Butterwell Opencast has closed and will be replaced by Potland Burn.

Network Rail response

Following careful consideration of consultation responses, we have removed Didcot power station, Cockenzie power station and Widdrington open cast from our list of coal loading / unloading locations. As suggested by stakeholders, these are due to close prior to the commencement of CP5. We have also removed Lackenby from the list on the basis that it is no longer in service.

We did not include Ironbridge and Lynemouth power stations in our list of coal loading / unloading locations on the basis that these are also due to close prior to the commencement of CP5.

We do not agree that Chalmerston should be removed from the list of coal loading / unloading locations on the basis that it experiences infrequent rail traffic. Therefore, we have retained it on our list of coal loading / unloading points. We note, however, that as a result of incorporating Arup's recommendations, the costs attributed to this location have been reduced due to its 'low' traffic volumes.

In relation to Butterwell Opencast we have retained this location on the list of coal loading / unloading locations because, although it has been replaced by Potland Burn, we understand that the same rail connection continues to be used.

The Arup review highlighted that Port of Blyth had incorrectly not been included on the list of coal loading / unloading locations; therefore, we have now included this location.

We have also included Eggborough power station as a relevant coal unloading location because we now understand that it is not due to close prior to the commencement of CP5.

The full updated list of coal loading / in loading locations is set out in Appendix 2 (see, above). This list also reflects the amended number of impacted plain line track miles and point ends as a result of implementing the recommendations set out in the Arup report.

Discontinuing the CSRIC

Consultation Question 4

What is your view on our proposal to discontinue the CSRIC in CP5?

GB Railfreight acknowledged that the CSRIC has been useful for CP4, with many of the coal loading points fitted with wagon cleaning equipment to reduce coal spillage on the network. It, however, agreed that the charge should be discontinued at the start of CP5.

DB Schenker supported our proposal to not reinstate the CSRIC in CP4 or levy the charge in CP5. This is due to the considerable fall in the number of schemes applying for funding, compared to early CP4 when many of the key coal loading locations applied for funding to install cleaning equipment.

Coallmp, Freightliner and CoalPro also agreed that the CSRIC should be discontinued in CP5. Coallmp, Freightliner and Coal Pro considered that any money remaining should be refunded to the freight operators in the proportions at which it was levied.

CoalPro also suggested that further consideration be given to ways of reducing coal spillage. For example, it suggested that one way of achieving this would be to include provisions within the terms and conditions of the contracts between freight operators and their customers.

Rail Freight Group noted that it is difficult to form a view as the impact of the equipment installed under the fund has not been evaluated. It noted that, if it were the case that the equipment has reduced Network Rail's overall costs, then there must be a case for continuing the fund. If not, then it stated that there needs to be a re-evaluation, working with operators and customers, of how these costs can be reduced.

Network Rail response

Following careful consideration of consultation responses, we propose that the CSRIC should be discontinued in CP5. The majority of respondents supported this approach.

We consider that at the locations where coal wagon rake cleaners have been installed this has contributed to a reduction in the level of coal spillage on the network. Hence, we are accepting Arup's recommendation to reflect this equipment in our estimate of coal spillage costs.

However, during the course of CP4, wagon cleaning equipment has been fitted at the busiest coal loading locations. For example, all the coal loading points at the Port of Immingham now have cleaning equipment installed (or are due to have cleaning equipment installed). Coal traffic volumes are also forecast to decline in the future which will reduce the need for the continued installation of wagon cleaning equipment.

At present, there is £45,000 remaining in the coal spillage reduction investment fund. We propose that any surplus funds that remain at the end of CP4 should be retained for CP5 to fund, or part fund, any final initiatives to install cleaning equipment. If there were to be any money remaining in the fund at the end of CP5, which we consider unlikely, we propose refunding this to freight operators in proportion to their contributions.

We will continue to support initiatives to reduce coal spillage and would welcome provisions within the terms and conditions of the contracts between freight operators and their customers, in this respect.

Coal Spillage Reduction Investment Fund

Consultation Question 5

What is your view on the appropriate size of an annual investment fund in the event that it was considered appropriate to retain the CSRIC for CP5?

DB Schenker and GB Railfreight considered that a £70,000 annual investment fund may be too high, as a number of the primary and secondary coal locations have already had cleaning equipment fitted.

DB Schenker calculated that, if the value of the schemes resulting from the expected initial influx of claims during the first year of CP4 were removed it would suggest that an annual investment fund of £40,000 would be more appropriate.

Drax Power considered that the CSRIC should only be maintained at a level that is appropriate to the need.

Network Rail response

If ORR were to conclude that the CSRIC should continue to be levied in CP5, we continued to believe that the charge should raise no more than £70,000 per annum. Moreover, following careful consideration of consultation responses, we believe that it would be reasonable to set the CSRIC at a level that aims to raise £40,000 per annum, as suggested by DB Schenker. However, as noted, above, we are not proposing retaining the CSRIC in CP5.

Estimating the CP5 CSC rate

Consultation Question 6

What is your view on how we have initially estimated the CP5 CSC rate?

Freightliner and Coallmp considered that the following statement in the consultation is a contradiction as it states that the cost impact of coal spillage is increasing but that coal traffic is forecast to decline:

“The CP5 rate is materially higher than the CP4 rate because the estimated total cost impact of coal spillage has significantly increased and coal traffic is forecast to decline”

GB Railfreight highlighted that Network Rail’s forecast for coal tonnage shows a gradual decline during CP5, but other coal forecasts (such as the MDS final market study) show a steeper decline in coal traffic.

DB Schenker and GB Railfreight noted the considerable increase of over 120% of the CSC rate relative to CP4. GB Railfreight considered that this suggests that some incorrect assumptions have been made. DB Schenker believed that an increase of this magnitude should be based on actual evidence rather than views, judgement, experience and adoption of previous assumptions which may now be incorrect, and considered that Network Rail’s methodology should be independently verified.

Network Rail response

We have updated our estimate of coal spillage costs to reflect the findings of the Arup review. As requested by DB Schenker, this review represents independent verification of our estimate of coal spillage costs.

We propose, however, retaining the methodology set out in the consultation document for calculating the CSC rate. Namely, dividing our estimate of coal spillage costs, which are predicated on a 2014/15 base year (year one of CP5) by 2014/15 traffic. This approach gives rise to a charge rate of 52.78 pence per 1000 gross tonne miles (2012/13 prices end CP5 efficiency).

On reflection, we understand why the statement highlighted by Freightliner and Coallmp may appear confusing, therefore, we explain it here in more detail. As noted, above, in order to estimate the CP5 CSC rate it is necessary divide our estimate of coal spillage costs by the relevant traffic level (we are proposing using a 2014/15 base year for calibrating the CP5 CSC rate). Hence, if the numerator (coal spillage costs) is higher as a result of more coal loading / unloading locations being identified, and the denominator (coal traffic volumes) is lower due to declining coal traffic volumes, the unit rate generated for charging purposes will be higher. We would reiterate that the cost estimate has not increased as a result of falling traffic volumes, rather additional coal loading / unloading locations have been identified which were excluded in error in PR08.

As noted, above, the coal traffic forecast set out in our consultation was consistent with our SBP traffic forecast; this forecast was based on the latest information available at the time. We are aware that since we developed our SBP coal traffic forecast further information has emerged which will impact on the level of coal traffic volumes in CP5. This information is likely to be reflected in the Freight Market Study: Draft for Consultation, for example. However, as noted, above, we propose calibrating the CSC based on 2014/15 coal traffic volumes, and we continue to consider that our SBP forecast is broadly reasonable in this respect.

We do not consider that because coal traffic volumes are forecast to decline in CP5 that this implies that there should be a corresponding reduction in the level of the CSC rate. Rather, we believe that it is appropriate to calibrate the charge rate based on a single year's cost and traffic data and then let the income that we receive through the charge vary in line with outturn traffic volumes. Hence, if there were to be a material decline in coal traffic volumes in CP5, we would receive less income through the CSC because it is a variable charge levied on a 1000 gross tonne mile basis, reflecting the reduced cost impact of coal spillage on the network.

We consider that it was reasonable to use the assumptions established in CP4 as a baseline for setting the charge in CP5, making refinements, where appropriate. The assumptions developed in CP4 were established by the independent reporter, Halcrow, after several detailed site visits and we consider that these continue to be relevant when setting the charge for CP5.

The table, below, compares the CP4 (year one) charge rate, our initial CP5 CSC rate, and our updated CP5 CSC rate, after adjusting for price bases and efficiency.

Variance analysis (2012/13 prices end CP5 efficiency) , pence per coal KGTM

	PR08	CP5 (updated)	Variance (pence)	Variance (%)	CP5 (initial estimate)	Variance (pence)	Variance (%)
Coal ESI	29.17	52.78	+23.61	+80.9%	64.97	+35.8	+122.7%
Coal Other	29.17	52.78	+23.61	+80.9%	64.97	+35.8	+122.7%

We set out our proposed CP5 CSC rate in the draft price list appended to this document (see Appendix 2, above).

CSC annual review mechanism

Consultation Question 7

What is your view on our proposal to cease adjusting the CSC rate annually in CP5 based on the number of coal related points failures?

Rail Freight Group supported our proposal to discontinue the annual adjustment mechanism, provided that the cost impact of coal spillage is correctly calculated, as it considered that there would be merit in confirming the per wagon rate at the start of the control period. However, if the existing methodology were to be retained, it believed that the CSC should be updated annually.

DB Schenker and Drax Power considered that removing the annual adjustment mechanism will diminish incentives on operators and load point operators to continue to implement measures aimed at reducing coal spillage on the network.

Freightliner, however, considered that there has been no incentive for operators to improve behaviours and, as such, they see little reason to retain the annual review mechanism.

DB Schenker acknowledged Network Rail's concern that the current adjustment mechanism is flawed because it fails to take account of changes in coal traffic volumes. It, therefore, considered that the annual adjustment mechanism should be retained for CP5 but that it should be revised to normalise the number of points failures attributed to coal spillage for coal traffic volumes.

GB Railfreight considered that the annual adjustment mechanism should continue, but there needs to be more detailed evidence in relation to points failures.

Coallmp and CoalPro noted that, if the CSC was incorporated into the Freight-Specific Charge, it would not be possible to make annual adjustments.

Network Rail response

Whilst we understand why some respondents considered that the CSC annual adjustment mechanism should be retained, following careful consideration of consultation responses, we are proposing that it should be removed in CP5. The primary reason for this is that we consider reviewing the level of the charge on an annual basis imposes disproportionate administration costs on the industry. It has not been proposed that the level of any other track access charges due to be levied in CP5 will be reviewed, in consultation with the industry, on an annual basis. We, therefore, do not consider it appropriate to retain an annual review mechanism in a

track access charge which accounts for approximately 3% of the total income that we receive from freight operators.

In relation to the impact on incentives for the industry to reduce coal spillage, we do not believe that removing this mechanism will have a materially detrimental effect in this regard. In our opinion, the number of coal related points failures was adopted as a pragmatic proxy for the level of coal spillage on the network. It is, however, unlikely to appropriately reflect industry initiatives (e.g. the installation of cleaning equipment) to reduce the level of coal spillage. We consider that such initiatives are better reflected when the CSC is reviewed as part of the period review process. Therefore, if as part of the periodic review there continues to be scope to reflect such initiatives, there will continue to be an incentive for the industry to reduce the level of coal spillage.

If ORR were to determine that the CSC annual review mechanism should be retained, we strongly consider that it should be normalised by coal traffic volumes, which appear to be the main driver of the level of coal related points failures in CP4. We note, however, that this adjustment would serve to introduce further complexity into a mechanism which we currently consider imposes disproportionate transaction costs on the industry. Therefore, we consider that this also potentially lends weight to the view that the review mechanism should be removed in CP5.

CSRIC annual review mechanism

Consultation Question 8

What is your view on our proposal that if the CSRIC were to be levied in CP5 there would be considerable merit in setting the level of the charge for the duration of the control period?

CoalPro, Freightliner, Coallmp and GB Railfreight did not consider that there is any justification for continuing to levy the CSRIC in CP5.

Freightliner and GB Railfreight stated that, if the fund were to be retained, it would be beneficial to set the charge for the whole control period.

DB Schenker stated that it did not support setting the CSRIC for the entire control period. It considered that if this had been the case in CP4, Network Rail would have collected a considerable excess of money over and above that which was needed to meet the proposed funding schemes. DB Schenker noted that freight operators' profit margins are relatively thin, and they cannot afford to pay excess track access charges. In conclusion, it noted that if the CSRIC were to remain for CP5, the review mechanism should also remain to ensure the level of the fund is closely aligned to the value of the schemes in CP5.

Network Rail response

As noted, above, we are proposing discontinuing the CSRIC in CP5. However, if ORR was to determine that the CSRIC should be retained for CP5, we propose that it should be set for the duration of the control period. We continue to believe that reviewing the level of the charge on an annual basis imposes disproportionate administration costs on the industry. It is also inconsistent with the approach to setting other track access charges, which are set for the duration of the control period.

We consider that the likelihood of the investment fund accruing excess monies, if it were to be retained in CP5, is significantly reduced because of the experience gained in CP4 in relation to an appropriate level of funding for coal spillage reduction investment schemes. As noted, above, we also propose that, in the event that the investment fund had not been fully utilised by the end of CP5, it should be refunded to operators in proportion to their respective contributions.

Other Issues

In our consultation, in addition to the consultation questions, we also welcomed comments from stakeholders on any aspect of the PR13 CSC and / or CSRIC work programme. We summarise, below, the other issues raised by stakeholders before responding to each issue in turn.

Traffic forecasts

Coallmp and Freightliner stated that they did not recognise the figures in the Network Rail SBP coal traffic forecast. Coallmp noted that all credible forecasts which it is aware of show more dramatic reductions in coal volumes by the early 2020s. Additionally, CoalPro noted that, if the current Government energy policies are not changed, the ESI coal tonnage figures will fall much further and more rapidly from 2018 onwards than Network Rail's forecast. It considered that Network Rail's cost estimates should be updated to reflect this steeper decline.

Freightliner requested that Network Rail explain how it made these forecasts, and noted that it would expect these calculations to be checked to ensure consistency with the industry agreed forecasts.

Network Rail Response

As noted, above, the coal traffic forecast set out in our consultation was consistent with our SBP traffic forecast; this forecast was based on the latest information available at the time. We are aware that since we developed our SBP coal traffic forecast further information has emerged which will impact on the level of coal traffic volumes in CP5. This information is likely to be reflected in the Freight Market Study: Draft for Consultation, for example. However, as noted, above, we propose calibrating the CSC based on 2014/15 coal traffic volumes, and we continue to consider that our SBP forecast is broadly reasonable in this respect.

Over recovery of costs during CP4

Freightliner drew attention to the fact that the CSC and CSRIC income for Network Rail amounted to £5m in 2011/12 (based on the figures in Network Rail's Regulatory Accounts). However, Halcrow estimated that the cost for PR08 should have been £3.8m in (2011/12 prices end CP4 efficiency). It, therefore, assumed that Network Rail has been over recovering these costs during CP4.

Network Rail Response

Further to the, above, query from Freightliner we have reviewed the £5m value with respect to the CSC in the 2011/12 Regulatory Accounts. We can confirm that this number is incorrect and it is actually the sum of CSC income and ESI coal Freight-Only Line Charge income (Freight-Only Line Charge income is currently shown as

zero in the 2011/12 Regulatory Accounts). We will correct this issue when we publish the 2012/13 Regulatory Accounts.

We can also confirm that in 2011/12 we received £1.6m (cash prices) income through the CSC, approximately half the cost impact of coal spillage forecast by Halcrow in PR08. We do not, however, consider that this indicates that we have been under recovering these costs (nor would we consider that we would be over recovering these costs if the opposite were true). As stated, above, what we consider to be important is that the charge is calibrated using consistent cost and traffic data in order to derive an appropriate cost per tonne mile. The income that we receive will vary in line with outturn traffic volumes thus reflecting outturn coal spillage levels.

Comments on the consultation document

Rail Freight Group was disappointed at the analysis provided in the consultation and the underlying lack of progress in understanding the costs of coal spillage and the impact of measures to reduce it. It noted that, as coal spillage is a sufficiently large issue for Network Rail to warrant a bespoke charge, it would have expected that the consultation contained more detailed information and analysis.

DB Schenker also considered that our proposals were adequately explained and reinforced by factual information, given that the CSC is a significant proportion of freight operators' track access charges.

GB Railfreight considered that the consultation provided no evidence to back up the various assertions made, or many of the proposals which were discussed. It also considered that the detail of the consultation should be audited and peer reviewed before any of the figures can be used to propose changes to the CSC for CP5.

Network Rail Response

We consider that it was reasonable to use the assumptions established in CP4 as a baseline for setting for charge in CP5, making refinements, where appropriate. The assumptions developed in CP4 were established by the independent reporter, Halcrow, after several detailed site visits and we consider that these continue to be relevant when setting the charge for CP5.

We also consider the level of analysis set out in the consultation to be broadly proportionate to the income that we receive through the charge, which equates to approximately 3% of the total income that we receive from freight operators.

As set out in more detail, above, we have incorporated in full the recommendations of the independent reporter, Arup, in our updated estimate of coal spillage costs. We believe the review carried out by Arup constitutes the audit and peer review requested by GB Railfreight.