Office of Rail Regulation and Network Rail

Independent Reporter Lot 4 - Output Delivery & Monitoring

L4AR001: Review of 2014/15 Regulatory Accounts

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1 Executive summary

1.1 Introduction

This report presents the findings of Arup's review of selected parts of Network Rail's 2014/15 regulatory financial statements. This work is being delivered under the ORR Independent Reporter mandate L4AR001 (attached as Appendix A to this document).

The objective of the review is to determine the reliability and accuracy of the information presented in certain sections of Network Rail's regulatory financial statements. To achieve this, Arup has completed a detailed review of the figures and supporting commentary presented in the respective statements, and carried out selective analysis of underlying evidence.

Our review has encompassed the following statements:

- Statement 5: Total financial performance
- Statement 12: Volume incentive
- Statement 13: Maintenance volumes, unit costs and expenditure
- Statement 14: Renewals volumes, unit costs and expenditure

In addition, we have reviewed a sample selection of nine enhancement projects (which are included with the figures in Statement 3: Analysis of enhancement capital expenditure), and evaluated whether the spend associated with each project is eligible for addition to Network Rail's Regulatory Asset Base (RAB) in accordance with investment guidance criteria specified in the mandate.

Please note: A number of redactions have been made to this report version prior to publication for reasons of commercial confidentiality. Redactions are marked with the following symbol: ✂

1.2 Our approach

Our approach to this review has involved a combination of numerical checks and controls on calculations, review of systems and processes around formulation of the numbers, and qualitative appraisal of the evidence base and rationale for the accompanying management narrative. Guided by a risk-based approach, the areas of the statements that we judge to be materially important and potentially higher risk have been subject to a higher degree of scrutiny.

The principal source of guidance for this review has been the ORR's Regulatory Accounting Guidelines (RAGs). Other important documents that have informed this review include:

- ORR's final determination of CP5 income and expenditure set out in its 2013 Periodic Review (PR13);
- Network Rail's 2014 Delivery Plan; and

- cost / financial reporting handbooks (FPM handbook, MUC handbook, Cost & Volume handbook for renewals).

We have been provided with numerous documents, reports and spreadsheets in various formats to support us in the delivery of our review. A full list of documentation received is included in Appendix B to this report. We have also held a number of meetings with Network Rail staff to discuss the results presented and the underlying rationale and evidence base, as well as source datasets and reporting systems. This has included meetings with senior asset management and finance teams at four sample routes, and meetings with Network Rail's central finance team.

We are grateful for the time and assistance that Network Rail has given to help us complete this work.

We summarise our findings in the sections that follow.

1.3 Statement 5: Total financial performance

The key measure of Network Rail's financial performance is its Financial Performance Measure (FPM), presented in Statement 5 of the regulatory accounts. Through the FPM reporting mechanism Network Rail directly compares the levels of financial performance and delivery of outputs achieved for the given year to the levels specified in the ORR's PR13 determination.

Network Rail's reporting of financial performance through the FPM measure in Statement 5 has been found to be reasonable, with supporting explanations and qualitative evidence provided to a reasonable level of detail in most areas.

As a financial performance metric, FPM provides a far simpler means by which to evaluate financial performance than the REEM measure that was used during CP4. The calculation processes are structured in a way that makes adjustments clearly visible.

The principles and mechanics of FPM are clearly explained within the FPM handbook. Feedback from route meetings suggests that the FPM measure is understood and is being routinely used for financial reporting by route-based teams. There appears to have been an effective review process to support the finalized year-end figures with the central finance team holding review meetings with route asset management directors, programme financial managers and professional asset heads. Meeting minutes supplied indicate that those responsible for route asset delivery have been challenged to demonstrate the sustainability, asset condition and performance related to the levels of maintenance and renewal activity underpinning their FPM input calculations, in line with key policies and the principles set out within the regulatory accounting guidelines.

Qualitative management commentary was provided in support of all the main areas of income and expenditure feeding into FPM. Commentaries provided have been found to be generally consistent, logical and indicative of a sound understanding of the drivers of financial performance. Measures of asset reliability and performance were provided by each route; we consider these to be a reasonable demonstration of the robustness of maintenance and renewal programmes / activity levels underpinning the FPM calculations.

The level of quantitative supporting evidence has been found to be more variable and lacking in detail in a number of areas. For renewals FPM, although one route was able to provide a detailed project-level build-up of cost variances feeding into FPM calculations and adjustment totals, other routes provided more high-level calculations without the same degree of project-level detail. FPM-neutral deferral of renewals activities in particular is not underpinned by detailed analysis. For maintenance and other opex categories, routes have presented high-level comparisons of total spend but without any further breakdown.

There is very limited analysis differentiating between scope- and cost-driven FPM out-/underperformance. Routes have differentiated between cost- and scope-driven FPM, but only in relation to renewals activities, with only limited qualitative narrative and explanations provided for the different amounts. For maintenance, no FPM out-/underperformance is reported; all FPM out-/underperformance is reported as cost-driven. We consider improved analysis of how scope and cost-based factors are affecting financial performance should help Network Rail identify and focus on specific areas of business activity where financial performance improvements should be targeted and prioritized.

We are aware that Network Rail is proposing to implement further improvements to the FPM reporting process during 2015/16. These include upgrading systems and procedures associated with route-level reporting, with proposals to embed FPM-related detail as part of "business as usual" financial reporting. We consider these measures should promote good reporting practice and help improve the level of detail and robustness of information feeding into the measure.

1.4 Statement 12: Volume incentive

Network Rail's calculation of the 14/15 volume incentive has been found to be in line with the requirements of the PR13 determination. Network Rail has provided details of the workings and full visibility of extracted source datasets for both baseline and actual figures feeding into the measure. The volume incentive income amounts appear to have correctly computed, including the route disaggregated amounts, and no material inconsistencies have been identified.

The narrative for the Statement 13, whilst giving a clear explanation of the purpose of the measure, does not provide an explanatory commentary for the results obtained. We also note the sources for the respective outturn datasets are not annotated. Adding such detail would be beneficial in informing readers about the key causes / drivers for the results shown.

1.5 Statement 13: Maintenance volumes, unit costs and expenditure;

The process of producing maintenance volumes, unit costs and expenditure figures for Statement 13 has required Network Rail to undertake a substantial level of manual adjustment / error rectification to input cost and volume data within its Hyperion financial reporting system at year-end. This is due to a lack of effective error checks and controls in the period-by-period reporting of maintenance unit costs (MUCs) during the year.

Errors have arisen due to a combination of recurrent problems with the transfer of data between the different reporting systems, and manual inputting errors (in particular relating to activity volumes). We understand that data transfer problems between Network Rail’s Ellipse, Business Objects and Hyperion financial systems persisted for some nine months during 2014/15 and that issues are still ongoing. Data inputting errors are prevalent within input data for all periods throughout 2014/15 reflecting the lack of effective data validation and control measures in place.

The data transfer issues described above necessitated a substantial degree of adjustment at year end to both volume and cost figures allocated to different MUC codes. Network Rail also had to rectify the data inputting errors, which related mainly to inputted volumes; typical errors here included incorrect units of measure and decimal places in the wrong place.

Arup has carried out detailed analysis of (post-adjusted) volume and cost data used to calculate the MUCs presented in Statement 13, including a detailed review of corrections applied to costs at year-end to a sample of activities on three different routes. Overall, corrected outturn data appear to be broadly consistent with source datasets, and corrections applied have been found to be logical and supported by credible explanations from route-based asset management teams.

However, we consider the year-end validation and error rectification process to be far from satisfactory, and inherently less reliable than routine error checking and remediation during the year would have been. In addition to the lack of effective routine control processes, our confidence grading assessment has also identified a higher prevalence of input dataset errors than in previous years.

We understand that less management attention is now being given to MUCs as a reporting framework than previously, reflecting feedback from Network Rail that it considers the MUC framework to be of limited use in analysing efficient levels of maintenance activity, given the variable nature of maintenance activities as well as the limited coverage of the MUC framework in many areas of maintenance activity. Network Rail has stated that instead of unitised costing for individual activity types, maintenance is better measured on a resourcing basis for particular asset areas, e.g. track, as this better reflects the way that maintenance is planned and delivered on the ground. Reflecting this view, no commentary is provided in Statement 13 regarding levels of maintenance activity or variances vs. baseline for any of the MUCs. No baseline cost values have been entered into the statement, and no actual costs are reported for individual civils and buildings activity types.

In summary, Statement 13 provides a only partial view of maintenance activity-specific volumes, unit costs and expenditure. Our confidence grading applied to this year’s figures of C3 reflects the deterioration in process reliability and data accuracy we have found, when compared to the B2 grading last year.

1.6 Statement 14: Renewals volumes, unit costs and expenditure

Our review of Statement 14 has found renewals unit costs to have been correctly calculated and presented on a basis consistent with the RAGs and Network Rail's Cost & Volume handbook, with 14/15 outturn volume and cost data correctly extracted from source data systems. Baseline cost data have been correctly derived from Network Rail's 2014 Delivery Plan. The figures have been found to be correctly calculated with no discrepancies or calculation errors identified. On this basis, a confidence grading of A1 has been assigned.

The management commentary accompanying the Statement 14 figures provides only a partial narrative, commenting on variations in volumes of work delivered but with no commentary on unit costs. We consider it would be feasible for Network Rail to provide some high-level explanation of the variances in the unit cost figures, and that these are still likely to yield meaningful insights into levels of cost incurred for at least some areas of renewals activity.

1.7 Spend to save and third party promoted elements

We have reviewed a sample of nine investment enhancement schemes chosen by ORR. These have included six non-PR13 enhancement projects, and three retail schemes (included within PR13 as "income generating property schemes").

Of the six non-PR13 schemes reviewed, five are classified as third party promoted schemes. We have found all but one of the third-party promoted schemes to be correctly categorized as a third-party promoted RAB financed scheme. We have also found the 2014/15 spend incurred for the four correctly categorized third party promoted schemes should be suitable for RAB addition.

The remaining project identified in the sample as a third-party promoted scheme is the High Speed 1-North London Line project (HS1-NLL). Network Rail has confirmed that this project has been incorrectly designated as a third-party scheme, and that the project was in fact promoted by a division of Network Rail, and mandated by UK government (Department for Transport).

The other non-PR13 scheme we reviewed is Project Mountfield – a spend to save scheme. Whilst there were some discrepancies in the information we originally reviewed regarding the scheme's business case, Network Rail has since provided information to confirm the robustness of the final business case for the project.

In addition to the six non-PR13 schemes, we have reviewed three income-generating property schemes included within the PR13 determination. These have been evaluated against the same criteria as the (non-PR13) spend to save schemes, because we consider them to be of a similar nature to spend to save projects, therefore we have evaluated their eligibility for RAB addition on the same basis.

For all three retail schemes, Network Rail used existing framework providers and established competitive tendering processes. We consider such process are likely to have helped achieve efficient pricing for the works.

However, two of the retail schemes - [redacted] and [redacted] – have undergone a significant amount of post contract scope change. At [redacted] this has resulted in costs increasing from an original investment authority amount of [redacted] to [redacted] actually incurred. It is possible that the price for the works could have been more efficient had the scope of work been subject to less alteration since the original tendering time.

1.8 Recommendations

We have made three recommendations, all of which relate to the reporting of total financial performance (as presented in Statement 5):

Recommendation 1: We recommend that Network Rail provides more specific explanations of the ORR's financial reporting policies and principles within relevant sections of the FPM handbook. This should lead to a greater understanding of the purpose and objectives of the measure to those involved in the reporting process, as well as helping promote good reporting practice.

Recommendation 2: We recommend that Network Rail puts in place a structured plan to enhance reporting systems and procedures for maintenance and renewals FPM at route level. This would involve variances in spend being systematically analysed and categorized by "front-line" deliverers of maintenance and renewals activities.

Recommendation 3: We recommend that Network Rail monitors and reports the proportion of live renewals projects / maintenance spend within each route for which variance vs. budget has been correctly reported in line with FPM principles. This process would involve review and challenge from the central finance team utilising periodically submitted data from the routes. The central team would analyse and compare submissions, following-up directly with respective routes to identify areas of non-compliance where improvements are needed. Levels of FPM reporting compliance could be compiled as a periodic or quarterly KPI across the business, and used to compare between routes and promote improvement.

We provide further details in Chapter 8 of this report.

2 Introduction

2.1 Background and objectives

This report presents the findings of Arup's review of selected parts of Network Rail's 2014/15 regulatory financial statements (referred to hereafter as the "regulatory accounts"). This work is being delivered under the ORR Independent Reporter mandate L4AR001 (attached as Appendix A to this document).

The objective of the review, as stated in the mandate, is to determine the reliability and accuracy of the information presented in certain sections of Network Rail's regulatory financial statements.

To achieve this, Arup has completed a detailed review of the figures and supporting commentary presented in the respective statements, and carried out selective analysis of underlying evidence.

Our main findings for the five statements reviewed are summarized in the chapters that follow. Additional supporting details of analysis undertaken and evidence provided are included in the relevant appendices to this report.

2.2 Approach and key principles

Our approach to this review has involved a combination of numerical checks and controls on calculations, review of systems and processes around formulation of the numbers, and qualitative appraisal of the evidence base and rationale for the accompanying management narrative.

Our methodology has been guided by a risk-based approach, involving the targeted review of calculations and supporting evidence underpinning the results presented. Areas of focus and scrutiny applied have been informed by our assessment of where the material issues and potential risks are. Those aspects and areas that we judge to be materially important and potentially higher risk have been subject to increasing degree of scrutiny. This is reflected and explained in the commentary accompanying our findings.

In order to provide a clear view of our findings for each statement, we have adopted a colour-coded rating system for each evaluative procedure, which we reproduce below:

	Evidence largely complete / consistent explanations with sound rationale
	Evidence reasonable but with some gaps / inconsistencies in a few areas
	Partial evidence with some significant gaps / inconsistencies identified
	Evidence contradictory or completely lacking / risk of material misstatement

Our review has been completed in accordance with the principles set out under ISRE 2400. The ISRE 2400 principles are designed for "limited assurance" engagements, whereby a reviewer focuses on particular aspects of the entity's financial statements to support a particular conclusion. Such engagements differ from a conventional financial audit, in that the reviewer performs targeted evaluative and analytical procedures that should complement, but are distinct from, a conventional audit of financial statements.

This assurance approach has guided the analytical procedures we have performed that have enabled us to draw evidence-based conclusions to be drawn. The analytical procedures undertaken, and the conclusions we have drawn as a result, are documented in full in the chapters of the report that follow.

2.3 Guidance and documentation

The principal source of guidance for this review has been the ORR's Regulatory Accounting Guidelines (RAGs). A key stated objective of the RAGs is "to establish the basis of preparation and disclosure requirements of the regulatory financial statements that are consistent with the regulatory framework established by our 2013 periodic review ('PR13') determination." The RAGs specify the manner in which figures are to be presented within the respective statements, and explain the key principles and policies for financial performance reporting.

Where relevant, we have evaluated the consistency of Network Rail's reporting with the guidance and principles of the RAGs. Examples include requirements for demonstrating robustness of volumes from an asset management perspective, processes for reporting of variances in volumes of work, and details around inclusions / exclusions and adjustments applied to different statements.

Other important documents that have informed this review include:

- ORR's final determination of CP5 income and expenditure set out in its 2013 Periodic Review (PR13)
- Network Rail's 2014 Delivery Plan
- Cost / financial reporting handbooks (FPM handbook, MUC handbook, Cost & Volume handbook for renewals)

Documents and records have been made in support of the findings presented in this report, in order to provide a full audit trail. These include:

- Notes of review meetings held with each of the routes and the central finance team;
- Records of all incoming documentation (included as Appendix B);
- Descriptions of analytical procedures undertaken and results obtained.

3 Financial performance measure – Statement 5 (Total Financial Performance)

3.1 Overview

The key measure of Network Rail’s financial performance is its Financial Performance Measure (FPM), which it presents in Statement 5 of the regulatory accounts.[1] FPM links directly to the levels of financial performance and delivery of outputs specified in the ORR’s PR13 determination. Through the FPM reporting mechanism Network Rail compares its actual performance for the given year to the PR13 determination.

As a new measure of financial performance and efficiency for CP5, FPM replaces the “Real Economic Efficiency Measure” used to report year-on-year efficiency in the regulatory accounts during CP4.

As well as comparing different categories of income and expenditure, FPM also incorporates adjustments to reflect Network Rail’s delivery of outputs. In-year performance ahead of PR13 targets (i.e. cost savings ahead of PR13 efficiency assumptions, or outputs being delivered ahead of target) is reported through FPM as outperformance, whilst shortfalls are reported as underperformance.

3.2 Methodology

Our methodology in completing this part of the review has been based around the specific review procedures set out in the project mandate (see Appendix A). This has entailed a combination of the following:

- Review of controls: evidence of controls in place (processes, systems, validation) that support information presented.
- Numerical testing: checking and analysis of calculations, supporting formulae and processes and consistency of supporting data that underpin the material presented. This combines computational and error checks for the figures presented in the statements, and a sample checks of supporting system data / spreadsheets and original source documents.
- Qualitative assessment: review of logic, rationale and consistency of management narrative and qualitative evidence presented in support of reported figures.

Review procedures have been fully documented, with a description of the procedure and its purpose, and a summary of the results obtained.

In order to gain detailed, qualitative insights into the formulation and control processes underpinning the FPM figures from a sample of routes, Arup undertook face-to-face review meetings with the following four routes:

[1] Although Statement 5 is titled “Total Financial Performance”, Network Rail uses the term Financial Performance Measure, or FPM. In this report we use the term FPM to refer to this measure.

- LNW (12 May 2015)
- Western (12 May 2015)
- LNE (13 May 2015)
- Scotland (19 May 2015)

Arup discussed in detail the relevant FPM results with each route. This included:

- Overview of data systems and information sources used
- Key calculations undertaken
- Logic, rationale and key assumptions applied
- Accompanying narrative, understanding the story behind the numbers, with specific examples and details discussed.

Key documentation for this section of the review has included:

- ORR Periodic Review 2013.
- Network Rail Delivery Plan (presented through various supporting source files and spreadsheets).
- Statements 5a, 5b and 5c of the Regulatory Financial Statements setting out the results of the FPM measure including a breakdown by operating route.
- ORR CP5 Regulatory Accounting Guidelines (dated April 2014).
- Financial Performance Measure Handbook by Network Rail (December 2014).
- Route FPM packs, providing route-level FPM results and management narrative.
- Other supporting calculation spreadsheets and management narrative.

A full list of documents is provided in Appendix B.

3.3 Results

We summarise in the table below the results of our review.

Key:

Green	Evidence largely complete / consistent explanations with sound rationale
Green/yellow hatched	Evidence reasonable but with some gaps / inconsistencies in a few areas
Yellow	Partial evidence with some significant gaps / inconsistencies identified
Red	Evidence contradictory or completely lacking / risk of material misstatement

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)
1. Network Rail has clearly documented policies for the recognition of financial performance that are consistent with the ORR's regulatory accounting guidelines	Green/yellow hatched Network Rail has produced an FPM handbook, which describes the FPM calculation processes. The handbook explains clearly the overall purpose and scope of FPM, and how different parts of the measure relate to the PR13 determination. There are some references to wider aspects of ORR policy for recognition of financial performance within certain sections of the handbook, with references to the regulatory accounting guidelines in a few instances, but these themes are not explored in detail. There is no specific standalone section or chapter setting out the overall policy context and objectives of the FPM measure. Although references are made to asset management sustainability, this is not explicitly defined and there is no reference to the concept of robustness. Adding such explanatory background may be beneficial for future versions of the handbook.

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)
2. Network Rail has clearly documented processes for calculating financial performance within which assumptions are clearly laid out and which demonstrate consistency with documented policies	Processes for calculating financial performance are described in detail in the FPM handbook, with chapters for each element of income and expenditure.[2] The handbook describes how financial data are extracted from the relevant source data systems, and how these are compared with the PR13 baselines. This includes descriptions of adjustments that are applied in order to ensure meaningful comparisons. Principles set out in the handbook demonstrate consistency with ORR policies in various areas, including: - The requirement for FPM reporting to be disaggregated to route level, with input and sign-off required from route asset management teams. - The requirement for asset management sustainability and regulated output delivery to be considered as an inherent part of overall financial performance (alongside direct comparative aspects). - The need to differentiate between variations in renewals and maintenance expenditure due to re-profiling of activity between years, as opposed to variations contributing to FPM out-/underperformance.

[2] The FPM handbook comprises chapters for the following elements of the measure:
- Reporting process (general overview of the measure and its component parts.
- Turnover.
- Network Operations
- Support
- Maintenance
- Renewals
- Enhancements
- Schedule 4
- Schedule 8
- Rates & industry costs
- Other regulatory items

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)
	- The requirement to demonstrate that any deferral / slippage of maintenance or renewal activity does not have any adverse impact on asset condition or output delivery, in order for such deferral / slippage to be considered "neutral" in FPM terms (as opposed to inefficient). - Ensuring that the causes of any underspend / overspend are identified and explained. We note that the handbook does not provide detailed specifications around the categorisation of FPM out-/underperformance between scope-driven FPM and cost-driven FPM. Adding such detail may be beneficial for future versions of the handbook to help support robust FPM reporting in relation to these aspects. Going forward, for the reporting of FPM during 2015/16 Network Rail has developed additional guidelines for deliverers of renewals projects, requiring that for every project an assessment of FPM out-/underperformance is completed. Network Rail's Hyperion financial reporting system has input fields into which a brief FPM narrative can be inputted for each project on the system.
3. the calculation is performed in two stages for each route as follows: **a) a comparison of PR13 to CP5 Delivery Plan** **b) a comparison of actual / forecast costs to the CP5 Delivery Plan**	Calculations for the FPM measure have been performed in two stages for each route. The first stage of the calculation involves comparing income and expenditure assumptions in the 2014 Delivery Plan with the original PR13 determination; the second stage involves a comparison between the Delivery Plan (which was the basis for the 14/15 budget) and actual figures. <u>Comparison of PR13 to CP5 Delivery Plan</u> Although Network Rail's 2014 Delivery Plan (DP14) is closely based on the PR13 Determination, Network Rail proposed some variations for DP14, based on variances that were expected to arise in certain areas of income and expenditure compared to PR13. These variances comprised the following:

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)

	- Firstly, re-allocation and re-profiling of income and expenditure. This involved either re-distribution of total 14/15 income / expenditure between different routes within England & Wales (with the total remaining unchanged in net terms), or re-profiling of expenditure between years (mainly involving slippage / deferral of 14/15 renewals activity volumes until later in CP5 or into CP6). Both types of variance are "FPM neutral" (i.e. no net impact on reported FPM)[3], with the baseline re-profiled by route / year accordingly.
	- Secondly, areas of expenditure in which Network Rail was aware that costs would exceed PR13 assumptions. Network Rail terms these variances as "inherent FPM"; the variances contribute towards FPM underperformance, and relate mainly to the following:
	    o Higher cost rates identified for track renewals compared to PR13 assumptions
	    o Overrunning CP4 renewal projects (mainly relating to E&P, buildings and IT) that would incur spend in 14/15 with funding identified in PR13, therefore contributing to FPM underperformance as a result.
	    o Schedule 8 costs identified as being likely to be behind target due to reliability issues.
	
	Network Rail has provided spreadsheets detailing baseline adjustments / inherent FPM calculations relating to all of the above factors.
	
	<u>Comparison of actual costs to CP5 Delivery Plan</u>
	The main variations in income and costs arise between the CP5 Delivery Plan (which formed the budget for 14/15) and actual figures for the years. Network Rail has provided spreadsheets detailing this stage of the FPM calculation for all expenditure areas.

[3] Categorising such slippage / deferral as "FPM neutral" is subject to Network Rail demonstrating this does not have any adverse impact on asset condition or output delivery, as specified in the FPM handbook – see earlier paragraphs.

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)
4.a) The processes should show for each route expenditure variances analysed between re-profiling of activity and financial out/ under performance	<u>Renewals</u> The breakdown of renewals expenditure within each of the routes' FPM submissions gives a distinction between re-profiling of activity (FPM-neutral) and financial out- or underperformance. The level of supporting numerical detail is however variable across the routes. For the majority of renewals categories, actual renewals volumes are below Delivery Plan levels. There are very few cases where such volume reduction is reported as FPM scope outperformance. Such variances are instead being recorded as "FPM-neutral" slippage or deferral, with the shortfall in the given volume vs. plan expected to be recovered via higher spend in later years. We do not consider it unreasonable for re-profiled activity to be reported as "FPM neutral". We would however note that this means the inherent assumption is made, that re-profiled activities remain deliverable on with the same basic assumptions around cost. This may or may not present the risk of a "bow wave" in future years, associated with a growing backlog of renewals activity that could become increasingly challenging to deliver. Network Rail has pointed out that the overall renewals expenditure profile during CP5 is "front-ended", i.e. higher levels of volume & spend in earlier years, and that this in itself this reduces bow wave risk, with more room for shortfalls to be made-up in future years. We consider Network Rail's evidence base in support of FPM-neutral deferrals could be strengthened with analysis around the deliverability of future deferred volumes treated as FPM-neutral deferrals. Network Rail has provided asset reliability and condition indicators for the different renewals asset categories within the route FPM packs. The metrics have generally indicated asset measures to be broadly in line with, or ahead of target in most asset areas reviewed.

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)
	The level of detail in the supporting analyses of renewals FPM provided varies between routes. One route has been able to provide details of planned vs. actual spend on a project-by-project basis, year-on-year. This illustrated both where spend was being re-profiled between 14/15 and other years, and where differences in total outturn cost vs. budget (contributing to FPM out-/underperformance) for a given project have arisen. For other routes, analysis provided has been higher-level, without the same of project-specific detail. In general, although we consider the level of detail within the commentaries accompanying the analyses provided to be reasonable (see point 6. below) we consider a project-level build-up for all routes would strengthen the evidence base for the reported variances. <u>Maintenance and other opex categories</u> For opex categories (maintenance, signaller costs, support) there is no re-profiling of activity reported, hence any variability vs. PR13 baseline is treated as out-/underperformance. <u>Schedule 4</u> Outturn figures for 2014/15 show Schedule 4 costs incurred to be below PR13 assumptions. However, a proportion of underspend is a consequence of deferrals in delivery of renewals works from CP4. Network Rail has therefore adjusted Schedule 4 FPM baseline, thereby reducing reported outperformance (in accordance with the FPM handbook). Details of the workings applied have been provided within a spreadsheet.

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)
4.b) Financial outperformance / underperformance should be assessed between scope and cost;	<u>Renewals</u> For renewals, the mechanism for calculating FPM differentiates between scope- and cost-driven out-/underperformance. Actual 2014/15 results show cost-driven FPM is being reported across almost all asset areas on every route, but for the majority of asset categories on most routes no scope-driven performance is being reported (i.e. scope-driven FPM is "zero"). As discussed previously, reductions in renewals scope vs. plan are generally being categorised as FPM-neutral slippage / deferral (see 4a above). There have been some cases where FPM scope underperformance is reported, although these mainly relate to projects incurring cost during 2014/15 as a result of slippage from CP4, with the resulting additional spend treated as FPM-negative. Whilst qualitative commentary has been provided by the routes sampled with plausible explanations for both cost- and scope-driven FPM in different asset areas, this is not generally supported by quantified analysis. Route FPM packs do include tables for each asset area providing a DP14 vs. actual comparison of volumes and unit costs[4], but the figures presented are not consistent with results presented for cost and scope FPM, and tables appear to contain inconsistencies as well as missing data fields. <u>Maintenance</u> For maintenance, no differentiation is made between scope and unit-cost-driven FPM out-/underperformance. As with renewals, management commentary of maintenance FPM provides plausible explanations for FPM out-/underperformance in different areas that suggests both cost-related and scope-related drivers, but all variability is attributed to cost-based FPM.

[4] The renewals volume & unit cost breakdown in FPM packs uses the same renewals unit cost (RUC) definitions items as those presented in Statement 14 of the accounts.

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)
	Although the route FPM packs present a table breaking down actual spend on the basis of volumes and unit costs through the MUC framework, baseline (DP14) figures provided for comparison provide only volumes (no unit costs). There would therefore be no quantified basis with which to differentiate between scope and cost FPM, were such delineation of reported FPM performance made.
5. There has been appropriate internal review at an appropriate level of seniority of whether Network Rail's actual calculations of financial performance are consistent with Network Rail's stated processes and policies and the ORR's regulatory accounting guidelines	Review and challenge processes are evident, with the central finance team holding review meetings with route asset management directors, programme financial managers and professional asset heads. Network Rail has supplied meeting minutes which indicate that those responsible for route asset delivery have been challenged to demonstrate the sustainability, asset condition and performance related to the levels of maintenance and renewal activity underpinning their FPM input calculations, in line with key policies and the principles set out within the regulatory accounting guidelines.
6. The commentaries are consistent with the information that has been assured above	A significant amount of commentary is provided in support of the different elements of the FPM calculation for each route, as well as commentary supporting the centrally calculated elements of FPM. Explanations provided are generally consistent, based on reasonable logic and in line with assumptions set out in the FPM handbook, including consideration of issues around asset management / sustainability. Although there is some variability in the level of detail from different routes, no major inconsistencies have been identified.

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)
	Some discrepancies have been identified in supporting material provided by route teams. A notable example is where commentaries within the route FPM packs infer inefficient practice (i.e. FPM underperformance) but where this is captured as FPM-neutral deferral. (Such discrepancies were not evident in the commentaries provided within the published accounts). There has been found to be a significant level of management focus given to FPM within the routes visited by Arup. The FPM measure links directly to budgets and outturn cost reporting, meaning it is more relevant to routes' financial performance than the REEM measure previously used. Routes have been able to provide a greater level of detailed explanation for the FPM performance reported, with a direct look-through from reported FPM out-/underperformance to variances vs. budget in the areas of expenditure that FPM consists of. We consider the format of FPM should enable financial performance to reported to a greater level of detail, linking directly to actual projects and costs on a "bottom-up" basis.
7. Any financial outperformance that has been recognised in relation to maintenance and renewals has been achieved in areas where ORR accepts Network Rail has done sufficient work to sustain the network	N/A The ORR is undertaking its own assessment of asset sustainability of Network Rail's delivery business plan(s).[5]
8. The amounts of income and expenditure used in the calculation have been correctly extracted from the underlying accounting records.	Outturn income and expenditure figures have been found to be correctly extracted from underlying systems.[6] Income and expenditure totals and disaggregated figures reported in Statement 5 have been found to be consistent with other statements, with no material discrepancies identified.

[5] Email between Alexander Jan (Arup) to Gordon Cole (ORR) and Paul Marshall (Network Rail), dated 22nd May 2015 refers.
[6] Calculation spreadsheets for route-specific elements of renewals and maintenance FPM figures provided disaggregated source cost data directly extracted from the Hyperion financial system feeding into the route-level calculations.

Review procedure (ORR mandate)	Arup assessment: Statement 5 (Total Financial Performance)
9. The PR13 baselines used are the ones agreed by the ORR, these will be the financial targets for each route underpinning Network Rail's published CP5 Delivery Plan	PR13 baseline figures reported in Statement 5 have been found to be consistent with requirements for baseline extraction set out in the Regulatory Accounting Guidelines and the FPM Handbook. Network Rail has provided underlying spreadsheets setting out original PR13 baseline data, with adjustments factored into the 2014 Delivery Plan (see point 3. above), and subsequent inflation adjustments from 12/13 to 14/15 prices. No material discrepancies have been identified.
10. The sub-totals and totals in the table down cast and cross cast	Sub-totals and totals within all the tables presented in Statement 5 have been found to down cast and cross cast. No material discrepancies have been identified (although a few minor discrepancies have been identified due to rounding).
11. The disaggregated amounts for England & Wales and Scotland add up to the Great Britain amounts	Disaggregated amounts for England & Wales and Scotland have been found to add up to the Great Britain amounts in all areas of the Statement 5 tables. No material discrepancies have been identified.
12. The disaggregated amounts for England & Wales operating routes add up to the England & Wales amounts	Disaggregated amounts for individual routes in England & Wales have been found to add up to the England & Wales totals in all areas of the Statement 5 tables. No material discrepancies have been identified.

3.4 Conclusions

Network Rail's reporting of financial performance through the FPM measure in Statement 5 has been found to be reasonable. The measure has been found to provide clear visibility of variances in financial performance for different areas of income and expenditure compared to the PR13 determination, with supporting explanations and qualitative evidence provided to a reasonable level of detail in most areas.

As a financial performance metric, FPM enables a direct comparison of various income and expenditure to be made between the PR13 determination and outturn figures. This provides a far simpler means by which to evaluate financial performance than the REEM measure that was used during CP4. The calculation processes are structured in a way that makes adjustments clearly visible, e.g. year-on-year profiling of work volumes, enabling these to be differentiated from variances in outturn figures resulting from financial out-/under-performance.

The principles and mechanics of FPM are clearly explained within the FPM handbook. Feedback from route meetings suggests that the FPM measure is understood and is being routinely used for financial reporting by route-based teams. There appears to have been an effective review process involving route finance and asset management teams and the central finance team to support the finalized year-end figures.

Qualitative management commentary was provided in support of all the main areas of income and expenditure feeding into FPM, with much of the commentary provided by route-based teams responsible for the reporting of most expenditure areas. Commentaries provided have been found to be generally consistent, logical and indicative of a sound understanding of the drivers of financial performance. Measures of asset reliability and performance were provided by each route; we consider these to be a reasonable demonstration of the robustness of maintenance and renewal programmes / activity levels underpinning the expenditure levels feeding into the FPM calculations.

The level of quantitative supporting evidence has been found to be more variable and lacking in detail in a number of areas. For renewals FPM, although one route was able to provide a detailed project-level build-up of cost variances feeding into FPM calculations and adjustment totals, other routes provided more high-level calculations without the same degree of project-level detail. FPM-neutral deferral of renewals activities in particular is not underpinned by detailed analysis. For maintenance and other opex categories, routes have presented high-level comparisons of total spend but without any further breakdown.

There is very limited analysis differentiating between scope- and cost-driven FPM out-/underperformance. Routes have differentiated between cost- and scope-driven FPM, but only in relation to renewals activities. This assessment is supported with qualitative narrative and explanations for the different amounts, but generally not much in the way of granular analysis, e.g. comparison baseline and actual spend on a volume and unit cost basis. For maintenance, no FPM out-/underperformance is reported; all FPM out-/underperformance is reported as cost-driven.

We consider improved analysis of how scope and cost-based factors are affecting financial performance would help Network Rail identify and focus on specific areas of business activity where financial performance improvements should be targeted and prioritized.

We are aware that Network Rail is proposing to implement further improvements to the FPM reporting process during 2015/16. These proposals include upgrading systems and procedures associated with route-level reporting, with proposals to embed FPM-related detail as part of "business as usual" financial reporting. Network Rail also recently developed guidance to deliverers of renewals projects requiring FPM to be reported directly in the Hyperion financial system for every project. We consider these measures should promote good reporting practice and help improve the level of detail and robustness of information feeding into the measure.

We have made some recommendations for areas of FPM reporting relating to particular issues identified through our review. These are set out in Chapter 8 of this report.

4 Volume incentive – Statement 12

4.1 Overview

The volume incentive is designed to incentivise Network Rail to accommodate additional traffic on its network.[7] The volume incentive calculations combine the following four metrics relating to passenger and freight traffic levels on the network, each of which is compared to benchmark values that represent target traffic levels set by the ORR:

- Passenger train miles
- Passenger farebox revenue
- Freight train miles
- Freight 1,000 gross tonne miles

Where measures exceed target, Network Rail receives a financial reward. We note that the measure has been redesigned for CP5 to also incorporate a downside risk, such that if volume measures fall short of target by a certain threshold, Network Rail can also incur financial penalties.

The level of income or cost for Network Rail (i.e. reward or penalty) is calculated through a formula involving multiplication of the amount of over or under performance relative to benchmark values by an incentive rate for each metric.

The volume incentives and the associated income/cost are disaggregated at route level and derived using route-level growth baselines.

4.2 Methodology

Our methodology in completing this part of the review has been based around the specific review procedures set out in the project mandate (see Appendix A). This has entailed mainly numerical testing, involving checking and analysis of calculations, supporting formulae and processes and consistency of supporting data that underpin the material presented.

Key documentation for this section of the review has included:

- Network Rail Delivery Plan on Volume Incentives
- Statement 12 of the Regulatory Financial Statements
- Other supporting calculation spreadsheets and management narrative

[7] A detailed explanation of the purpose and logic of the volume incentive is provided in the PR13 determination, Chapter 19 (p.727)

4.3 Results

We summarise in the table below the results of our review.

Key:

Green	Evidence largely complete / consistent explanations with sound rationale
Green/yellow hatched	Evidence reasonable but with some gaps / inconsistencies in a few areas
Yellow	Partial evidence with some significant gaps / inconsistencies identified
Red	Evidence contradictory or completely lacking / risk of material misstatement

Review procedure (ORR mandate)	Arup assessment: Statement 12 (Volume Incentive)
1. Network Rail's calculation of its performance on the volume incentive is in accordance with the PR13 determination. This should include an assessment of whether the data used to calculate the measures is of sufficient quality and consistent with the purpose of the measures	Network Rail has provided a Volume Incentive Calculator spreadsheet from which the total and route-disaggregated figures are produced, as well as a full version of the Statement 12 tables in the accounts, broken down by route. The calculation of Network Rail's performance on the volume incentive as presented appears to be consistent with the calculation principles set out in the PR13 determination. Incentive rates and baseline annual growth targets used to calculate the measures have been found to be consistent with the disaggregated figures published by Network Rail in 2014, based on PR13 totals. The calculator spreadsheet includes a year-by-year breakdown of the CP5 baseline trajectories for each measure, with each year's target disaggregated by route.

Review procedure (ORR mandate)	Arup assessment: Statement 12 (Volume Incentive)
	For three out of the four measures – passenger train miles, freight train miles, and freight gross tonne miles – Network Rail has extracted source data from its Track Access Billing (TAB) system. These are the same data that are used to bill Train Operating Companies for track usage. For the other measure – farebox revenue – data are provided directly by the DfT. We consider these sources of data to be appropriate, with each is extracted from established sources / systems that are utilised by other parties within the rail industry. The calculator spreadsheet combines data (both baseline and actual) from various worksheets to produce the volume incentive results for each measure in each route. The workings are clearly shown, with input and calculation fields annotated. The spreadsheet also includes explanatory text, setting out the purpose and principles of the measure and explaining how it is derived. An overview of the workings undertaken is also set out within the regulatory financial statements document itself, with the calculations laid out and accompanied by commentary explaining the results shown. The way in which the volume incentive figures have been calculated appears to be consistent with the purpose of the measures. Workings are clearly set out in the statements, with full source data included within the calculator model. The calculation methodology is consistent with the agreed mechanism for CP5 (as referred to above). Data are consistent and of sufficient quality to fulfil the calculations requirements for the four metrics.

Review procedure (ORR mandate)	Arup assessment: Statement 12 (Volume Incentive)
2. Where income or costs have been allocated that this allocation has been made on a reasonable basis and any other estimate used is reasonable	The volume incentive calculation is based on the difference in actual performance vs. benchmark levels on four volume-related metrics, multiplied by a unitary "incentive rate", to produce either an additional cost to Network Rail or an item of income (depending on whether the overall net effect of actual performance vs. benchmarks is positive or negative). For 14/15, with three out of the four metrics ahead of benchmark for 14/15, the volume incentive reports, in net terms, a positive income contribution of £51m. The calculations produced to derive this figure as well as the disaggregated amounts for each route have been found to be correctly performed.
3. Baseline traffic data agrees to the published volume incentive baselines	The 2014/15 baseline numbers are based on traffic volumes measured through the given metric (passenger train miles, freight train miles, freight 1,000 gross tonne miles) for 2013/14 (CP4 exit year) multiplied by the baseline growth rate for 2014/15. The baselines derived, including both GB totals and disaggregated route figures, have been found to be correctly calculated with no errors identified. We note that passenger farebox revenue numbers have been subject to updates due to a revision of the RPI assumption. The original PR13 assumption was RPI+1%, however, this was amended following the announcement on fares policy in 2014 to RPI only. In October 2014, ORR revised the overall CP5 baseline growth trajectory from 17.5% to 17.1% for CP5 overall.[8]

[8] Network Rail has provided correspondence with the ORR and spreadsheets detailing the revised farebox baseline numbers.

Review procedure (ORR mandate)	Arup assessment: Statement 12 (Volume Incentive)
4. The sub-totals and totals in the table down cast and cross cast	Sub-totals and totals within all the tables presented in Statement 12 have been found to down cast and cross cast. No material errors were identified (although a few minor discrepancies have been identified due to rounding).
5. The disaggregated amounts for England and Wales, for Scotland and each operating route add up to the Great Britain amounts	The disaggregated amounts for England & Wales, for Scotland and each operating route have been found to add up to the Great Britain amounts, there is no material difference between the amounts.
6. The disaggregated amounts broken down by operating route add up to the Great Britain amounts	The disaggregated amounts broken down by operating route have been found to add up to the Great Britain amounts, there is no material difference between the amounts.
7. Network Rail's narrative on the table is reasonable and the details set out in the commentary agree to the underlying accounting records or other supporting documentation	The narrative on the table provides a reasonable explanation of the purpose of the volume incentive, the calculation approach and changes applied to the measure since the end of CP4. The Statement 13 table as currently presented in the regulatory accounts statements does not include a citation of the source datasets. Only a very brief comment is provided of the outturn results shown, with no commentary of the causes / drivers during 14/15. Providing concise narrative around these factors would be very beneficial in informing readers about the key causes / drivers for the results shown.

4.4 Conclusions

Network Rail's calculation of the 14/15 volume incentive has been found to be in line with the requirements of the PR13 determination. The volume incentive calculator spreadsheet has provided full visibility of extracted source datasets for both baseline and actual figures feeding into the measure. The data appear to be of sufficient quality and consistent across the routes. The resulting volume incentive income amounts appear to have correctly computed, including the route disaggregated amounts, and no material inconsistencies have been identified within the calculations.

The narrative for the Statement 13, whilst giving a clear explanation of the purpose of the measure, does not provide an explanatory commentary for the results obtained. We also note the sources for the respective outturn datasets are not annotated. Adding such detail would be beneficial in informing readers about the key causes / drivers for the results shown.

5 Maintenance unit costs, volumes and expenditure – Statement 13

5.1 Overview

Statement 13 provides a breakdown of maintenance expenditure for a number of specific activity areas by volume and unit cost, using codes as defined under Network Rail's maintenance unit cost (MUC) framework, with 28 MUCs presented in total.[9]

The majority of MUCs presented relate to track maintenance, with around 40% of total track maintenance expenditure captured through 23 MUCs in the statement. The remaining unit costs relate to electrical power & fixed plant (E&P), with just over a third of E&P maintenance expenditure broken down via the remaining five MUCs.[10]

Actual volumes for each MUC in Statement 13 are compared to baseline volumes from Network Rail's 2014 Delivery Plan.[11] Baseline costs for each MUC are not shown in the version of Statement 13 provided for review.

We note that Network Rail reports costs both at activity level (through the MUC framework) and at the resource level.

We summarise the results of our review of Statement 13 and the MUCs presented in it in the sections that follow. A more comprehensive description of our review of the MUCs is provided in Appendix C to this document.

5.2 Methodology

Our methodology in completing this part of the review has been based principally around the specific review procedures set out in the project mandate (see Appendix A). This has entailed checking and analysis of calculations, supporting formulae and processes and consistency of supporting data that underpin the material presented.

Our detailed analysis of MUC data quality has included the assignment of a confidence grading. This grading reflects our evaluation of the reliability and accuracy of unit costs presented, taking into consideration the systems used to collate the data, as well as a series of numerical checks to assess the accuracy of the outturn unit cost figures presented. On this basis, an alphanumeric grading has been assigned. Our methodology for completing this part of the review is

[9] As well as track and E&P, Statement 13 presents a further nine MUC categories for civils and buildings maintenance. However in the version of the accounts provided for review, no unit costs have been reported against these codes, only volumes.

[10] We note that Network Rail reports internally against a greater number of activity codes than those specific in the RAGs and set out in Statement 13; a total of 122 codes are defined by Network Rail under the overall MUC framework.

[11] We note that baseline volumes are not provided from PR13 because maintenance expenditure / volumes were not broken down within PR13 into individual MUC categories

described in detail in Appendix C, whilst the confidence grading definitions are attached as Appendix D.

Key documentation for this section of the review has included:

- Network Rail Delivery Plan for baseline volumes
- Handbook documentation (“FRM 702” process guidance and MUC Manual)
- Statements 8a, 13 of the Regulatory Financial Statements
- Source data in the Hyperion financial system
- Source data in the Ellipse activity reporting system
- Descriptions of adjustments applied to MUCs at year-end to a sample of reported unit costs
- Other supporting calculation spreadsheets and management narrative.

5.3 Results

We summarise in the table below the results of our review.

Key:

(green)	Evidence largely complete / consistent explanations with sound rationale
(green/yellow hatched)	Evidence reasonable but with some gaps / inconsistencies in a few areas
(yellow)	Partial evidence with some significant gaps / inconsistencies identified
(red)	Evidence contradictory or completely lacking / risk of material misstatement

Review procedure (ORR mandate)	Arup assessment: Statement 13 (Maintenance unit costs, volumes and expenditure)
1-Costs for each activity have been reported in accordance with the company's Cost & Volume Handbook	(yellow) Maintenance unit cost data have been recorded by each route in the Ellipse data systems over the course of 2014/15 as specified within the relevant handbook documentation.[12] These have informed the figures presented in Statement 13. However, data quality and control processes do not appear to have been followed adequately. As a result, a significant level of manual re-working and error rectification of input volume and cost data has been necessary at year-end in order to provide reliable figures for Statement 13. Such an adjustment process is not anticipated within handbook documentation which assumes MUC data to be error-checked and validated as part of the routine MUC process. It imports additional risk which could be avoided easily.

[12] Guidance to support the process for formulation and reporting of maintenance activity costs as presented in Statement 13 (through the MUC framework) is incorporated within the FRM702 process documentation and the MUC manual.

Review procedure (ORR mandate)	Arup assessment: Statement 13 (Maintenance unit costs, volumes and expenditure)
	We understand that a significant proportion of errors were the result of recurrent problems with the transfer of data between the different reporting systems. This resulted in corruption of source data from Ellipse, the source system into which costs and volumes are inputted, when they were transferred into Hyperion (Network Rail's financial reporting system). We also understand that substantial data inputting errors had arisen within Ellipse, principally in relation to activity volumes, which were not identified and rectified until year-end. Network Rail is no longer performing "Week 3" data quality checking that it previously carried out, which we consider makes inputting errors less likely to be picked up in the period they arise. Network Rail also appears to have altered units of measure for some MUC activities (e.g. from miles to km), without reflecting such changes in FRM702 or the MUC manual. Change control processes to manage updates to handbook documentation, as recommended by Arup in previous reviews, do not appear to have been implemented.
2-Cost information to calculate the unit costs has been correctly extracted from the underlying accounting records and that any estimates used are reasonable. The independent reporter is not required to form a view about the quality of the underlying accounting records as this forms part of the work of the external auditor	A significant degree of manual data adjustment has been necessary at year-end within the Hyperion financial reporting system in order to make outturn cost data consistent with source input data, and to ensure reported costs are free from error. As noted above, errors have arisen due partly to data transfer problems between Network Rail's different systems during the year, as well as manual data inputting errors, neither of which were effectively rectified until year-end. Arup has carried out a comparison of (post-adjusted) cost data used to calculate the MUCs presented in Statement 13 with source activity costs input through the Ellipse system, and the datasets appear to be broadly consistent. Arup has also completed a

Review procedure (ORR mandate)	Arup assessment: Statement 13 (Maintenance unit costs, volumes and expenditure)
	detailed review of corrections applied to costs at year-end to a sample of activities on three different routes. The corrections have been found to be logical and supported by credible explanations from route-based asset management teams. Expenditure totals per asset category presented in Statement 13 have also been found to be consistent with figures in Statement 8a. Nevertheless, the lack of routine error checking (described under point 1.) and the requirement for an extensive "work around" at year-end reflects a lack of rigour in the process by which expenditure data are derived.
3-Volumes of work undertaken have been correctly extracted from the Network Rail's asset management information systems	The same issues described under point 2 in relation to cost data also apply to volumes. As well as issues with the transfer of data between systems, input errors have been identified as a particular problem for reported volumes, with substantial errors found during Network Rail's year-end checks in some MUC categories. Arup has reviewed in detail the volume adjustments applied at year-end to a sample of activities on three different routes. Although the volume corrections have been found to be logical and supported by credible explanations from route-based asset management teams,[13] we consider the overall reporting process for extracting volumes of work has been far from satisfactory given the degree of manual intervention and correction of errors that has been necessary.

[13] Network Rail has indicated that the volumes signed-off by route asset management teams for the regulatory accounts will also inform the company's Annual Return, scheduled for publication in summer 2015.

Review procedure (ORR mandate)	Arup assessment: Statement 13 (Maintenance unit costs, volumes and expenditure)
4-The resulting unit costs have been correctly calculated using the information in parts (2) and (3) above	Calculations involving the division of expenditure amounts by volumes to produce the MUCs have been found to be correctly performed (notwithstanding the issues with source data and processes described above). No material discrepancies have been identified (although a few minor discrepancies have been identified due to rounding).
5-The PR13 baselines used are the ones agreed by the ORR, these will be the financial targets for each route underpinning Network Rail's published CP5 Delivery Plan	Baseline volumes are shown in Statement 13 for individual maintenance activities, but baseline costs are provided only at the overall asset category level. Baseline expenditure totals for each asset category have been found to be consistent with values presented in Statement 8a. Baseline volumes presented are derived from Network Rail's 2014 Delivery Plan. This was agreed with the ORR on the basis that the PR13 determination did not contain a breakdown of maintenance costs to a sufficient degree of granularity to enable comparison, therefore DP14 was adopted as a comparative baseline. [14] The figures shown have been checked against DP14 volumes and found to be consistent. Network Rail has indicated that a detailed costing exercise for each maintenance activity was not undertaken as part of the DP14 process; as a result, no baseline expenditure values for individual maintenance activities have been provided for comparison. Overall, whilst the baseline figures that are included are consistent with those agreed with the ORR, areas of the table relating to baseline activity costs have been left empty.

[14] Email correspondence between Network Rail (Liam Rattigan) and ORR (Gordon Cole), dated 3rd February 2015 refers.

Review procedure (ORR mandate)	Arup assessment: Statement 13 (Maintenance unit costs, volumes and expenditure)
6-Where applicable the sub-totals and totals in the table down cast and cross cast	Sub-totals and totals within all the tables presented in Statement 12 have been found to down cast and cross cast. No material errors were identified.
7-Where applicable the disaggregated amounts for England and Wales and Scotland add up to the Great Britain amounts	Disaggregated amounts for England & Wales, for Scotland and each operating route have been found to add up to the Great Britain amounts. The disaggregated amounts broken down by operating route have been found to add up to the Great Britain amounts.
8-Network Rail's narrative supporting the statement is reasonable and the details set out in the commentary agree to the underlying accounting records or other supporting documentation	Network Rail's narrative to Statement 13 gives a brief explanation of how the MUCs are derived, and explains the utilisation of DP14 for baseline volumes whilst also noting the limited degree of analysis of maintenance on the basis of MUCs that was performed at DP14 (meaning that no baseline unit costs are provided – see above). The bulk of the narrative focuses on the limitations of maintenance unit costs as a means to analyse efficient levels of maintenance activity. Network Rail notes, given the variable nature of maintenance activities, as well as the limited coverage of MUCs, that comparative analysis on a resource basis would be likely to provide more useful comparative insights. The narrative does not give any commentary on the actual variances between actual and baseline volumes or expenditure by asset area.

5.4 Confidence grading analysis

We set out the results of our confidence grading analysis for the maintenance unit costs presented in Statement 13 in the table below.

Grading	Result and description	Rationale
Reliability grading	"C" - Significant shortcomings in the reporting system would have a significant effect on the reliability of the system.	The degree of rigour underpinning the MUC reporting process appears to have fallen in 14/15 compared to previous years, with less management attention given to MUCs as a reporting framework. Although reasonable documentation and guidance to support the MUC process is in place, this does not appear to have been updated adequately during 14/15. Cost and volume data are being routinely captured within the Ellipse data systems by deliverers of maintenance activities with complete datasets provided from each route. However, there do not appear to be effective error-checking procedures in place when these data are extracted for the purposes of period-by-period reporting of the MUCs. As well as manual input errors, problems with data transfer between systems have given rise to significant discrepancies within MUC data held in Network Rail's Hyperion financial reporting system, which were not rectified until year-end. Significant manual adjustments of the cost and volume figures in Hyperion have therefore been required, both in order to reconcile reported MUCs with relevant input data in Ellipse, and to identify and remove inputting errors not picked up during the year. We consider the process undertaken for the 14/15 MUCs to be less reliable than a routine error-checking and validation, given the delay involved in identifying errors, the extent of the adjustments required, and the lack of solutions to

		system / input problems being implemented as and when they arose. On this basis, we consider the reliability grading of "C" to be representative of the 14/15 MUC process.
Accuracy grading	"3" - Data used to calculate the measure is accurate to within ±10%.	Our accuracy grading is based on a series of numerical error tests and consistency checks between original source input data in Ellipse and the published MUCs (post-adjustment and error rectification at year-end, as described above).[15] This year's review has identified a higher prevalence of errors / discrepancies than the two previous years. Volume inputting errors in particular have been found to be more widespread than previously, including issues around the incorrect unit of measure being used. Although levels of error / discrepancy vary between individual MUC codes (see Appendix C), a higher number of MUC codes have been assessed as containing up to +/- 10% inaccuracy than in previous years, whilst fewer have been identified as accuracy to within +/-1%. We consider the accuracy grading of "3" to be representative of the overall accuracy of MUC figures calculated for Statement 13. A full list of accuracy gradings assigned to each MNT code is included in Appendix C.

In summary, based on the review process described above, our confidence grading for the maintenance unit costs calculated for Statement 13 is **C3.**

5.5 Conclusions

The process of producing maintenance volumes, unit costs and expenditure figures for Statement 13 has required Network Rail to undertake a substantial level of manual adjustment / error rectification to input cost and volume data within its Hyperion financial reporting system at year-end. This is due to a lack of effective error checks and controls in the period-by-period reporting of MUCs during the year.

[15] We provide full details of our accuracy grading methodology in Appendix D.

Errors have arisen due to a combination of recurrent problems with the transfer of data between the different reporting systems, and manual inputting errors (in particular relating to activity volumes). We understand that data transfer problems between Network Rail's Ellipse, Business Objects and Hyperion financial systems persisted for some nine months during 2014/15 and that issues are still ongoing. Data inputting errors are prevalent within input data for all periods throughout 2014/15 – reflecting the lack of effective data validation and control measures in place.

The data transfer issues necessitated a substantial degree of adjustment to both volume and cost figures allocated to different MUC codes. Adjustments to rectify data inputting errors related mainly to inputted volumes; errors in the sample data provided for review included incorrect units of measure and decimal places in the wrong place.

Arup has carried out a comparison of (post-adjusted) volume and cost data used to calculate the MUCs presented in Statement 13 with source activity volumes and costs input through the Ellipse system. Overall, the datasets appear to be broadly consistent. Arup has also completed a detailed review of corrections applied to costs at year-end to a sample of activities on three different routes. The corrections have been found to be logical and supported by credible explanations from route-based asset management teams.

However, we consider the year-end validation and error rectification process to be far from satisfactory, and inherently less reliable than routine error checking and remediation during the year would have been. This is due to the delay involved in identifying errors, the extent of the adjustments required, and the lack of solutions to system / input problems being implemented as and when they arose. Our confidence grading assessment has also identified a higher prevalence of input dataset errors than in previous years.

Our findings appear to reflect feedback from Network Rail that it considers the MUC framework to be of limited use in analysing efficient levels of maintenance activity, given the variable nature of maintenance activities, coupled with the fact that MUCs cover less than half of total maintenance expenditure. We understand that less management attention is now being given to MUCs as a reporting framework than previously. Network Rail has stated that instead of unitised costing for individual activity types, maintenance is better measured on a resourcing basis for particular asset areas, e.g. track, as this better reflects the way that maintenance is planned and delivered on the ground. Reflecting this view, Network Rail has not provided any commentary regarding levels of maintenance activity or variances vs. baseline for any of the MUCs. No baseline cost values have been entered into the statement, and no actual costs are reported for individual civils and buildings activity types.

In summary, Statement 13 provides a only partial view of maintenance activity-specific volumes, unit costs and expenditure. Whilst errors appear to have been rectified prior to finalization of the figures, the process followed has been far from satisfactory, with a lack of an effective error checking and remediation process within the routine reporting of MUCs period-by-period. Our confidence grading applied to this year's figures of C3 reflect the deterioration in process reliability and data accuracy we have found, when compared to the B2 grading last year.

6 Renewals unit costs, volumes and expenditure – Statement 14

6.1 Overview

Statement 14 presents renewals unit costs (RUCs) covering most areas of renewals expenditure. A total of 144 unit costs are presented, relating to track, signalling, civils, buildings, E&P, earthworks and telecoms assets. For each RUC category, Statement 14 presents the activity volume, unit cost and total cost for 14/15, and compares this to projections of volume and cost from in Network Rail's 2014 Delivery Plan.[16]

Network Rail has informed us that, unlike MUCs, the RUCs do not exist as a separate reporting framework used for planning / analysis within the company. RUCs are derived via a one-off set of calculations at each year-end in order to comply with RAGS specifications. Unit cost values are calculated for a given renewals activity by simply dividing total expenditure by volume.

6.2 Methodology

Our methodology in completing this part of the review has been based around the specific review procedures set out in the project mandate (see Appendix A). This has entailed mainly numerical testing, involving checking and analysis of calculations, supporting formulae and processes and consistency of supporting data that underpin the material presented.

Key documentation for this section of the review has included:

- Network Rail Delivery Plan for volumes of work and costs
- Network Rail Cost & Volume Handbook
- Statements 9a, 9b, 14 of the Regulatory Financial Statements
- Other supporting calculation spreadsheets and management narrative.

[16] Statement 14 does not make a comparison to the PR13 determination, as the determination did not present a sufficiently detailed breakdown of renewals expenditure and volumes. The adoption of the Delivery Plan figures as baseline for these figures was agreed with the ORR; Email correspondence between Network Rail (Liam Rattigan) and ORR (Gordon Cole), dated 3rd February 2015 refers.

6.3 Results

We summarise in the table below the results of our review.

Key:

Green	Evidence largely complete / consistent explanations with sound rationale
Green/yellow hatched	Evidence reasonable but with some gaps / inconsistencies in a few areas
Yellow	Partial evidence with some significant gaps / inconsistencies identified
Red	Evidence contradictory or completely lacking / risk of material misstatement

Review procedure (ORR mandate)	Arup assessment: Statement 14 (Renewals unit costs, volumes and expenditure)
1-Costs for each activity have been reported in accordance with the company's Cost & Volume Handbook	Green Network Rail provided a spreadsheet containing detailed workings from which the reported RUCs are calculated. Actual costs captured within the spreadsheet are defined and categorised on a basis consistent with the definitions set out in Network Rail's Cost & Volume Handbook.[17]
2-Cost information to calculate the unit costs has been correctly extracted from the underlying accounting records and that any estimates used are reasonable. The independent reporter is not required to form a view	Green Network Rail has extracted actual expenditure numbers at asset and sub-asset level from its financial reporting system (Hyperion). 14/15 source cost data extracted from

[17] Network Rail has provided a Cost & Volume Handbook for Control Period 5 summarising at a high level how the reporting of cost and volume for renewals is performed.

Review procedure (ORR mandate)	Arup assessment: Statement 14 (Renewals unit costs, volumes and expenditure)
about the quality of the underlying accounting records as this forms part of the work of the external auditor	Hyperion have been reviewed and found to be consistent with figures within Network Rail's RUC calculation spreadsheet. Total costs for each asset and sub-asset category within Statement 14 were reviewed against figures in Statement 9b (separately validated by the external auditor), and were found to be consistent. We note that for some areas of asset renewal (mainly relating to stations, E&P and telecoms), Statement 14 provides a greater degree of granularity than Statement 9b with some additional renewals sub-categories split out in the table. The reporting process of these numbers is detailed in Network Rail Cost & Volume Handbook for CP5.
3-Volumes of work undertaken have been correctly extracted from the Network Rail's asset management information systems	The reporting of renewals volumes for CP5 is detailed in the Network Rail Cost & Volume Handbook. The handbook defines the full suite of reportable activities and sets out the cost and volume reporting process for each. Network. Rail has provided spreadsheets showing source input data, including: - Volumes from the Primavera and Oracle Projects systems directly inputted by deliverers of renewals activities; and - Volume data transferred from the above systems into the Hyperion financial reporting system. These data appear to have been correctly derived from Network Rail's asset management systems in accordance with the handbook. The volume figures were compared to input volumes used to derive the RUCs in the calculation and were found to be consistent across the spreadsheets provided.

Review procedure (ORR mandate)	Arup assessment: Statement 14 (Renewals unit costs, volumes and expenditure)
4-The resulting unit costs have been correctly calculated using the information in parts (2) and (3) above	The renewals unit costs have been correctly calculated by dividing the total costs by the volume for each RUC category, with calculations clearly set out in the Statement 14 tables. This is compliant with the specifications in the RAGs.
5-The PR13 baselines used are the ones agreed by the ORR, these will be the financial targets for each route underpinning Network Rail's published CP5 Delivery Plan	Baseline renewal costs and volumes presented in Statement 14 are derived from Network Rail's 2014 Delivery Plan. This was agreed with the ORR on the basis that the PR13 determination did not contain a breakdown of renewals volumes and costs to a sufficient degree of granularity to enable comparison, therefore DP14 was adopted as a comparative baseline.[18] Baseline volumes are consistent with figures in the published version of Network Rail's 2014 Delivery Plan. Baseline costs are consistent with spreadsheets provided by Network Rail setting out DP14 cost figures for the different renewals activities. It is noted that for number of renewals activity areas (relating mainly to buildings, E&P and telecoms), the ORR RAGS template does not require any baseline cost data to be provided (only volumes) due to a lack of cost data broken down to this level within Network Rail's Delivery Plan dataset.[19] As a result, for certain RUCs that collectively account for ca. 17% of total renewals spend, no comparison of total cost or unit cost vs. baseline can be carried out.
6-Where applicable the sub-totals and totals in the table down cast and cross cast	Sub-totals and totals within all the tables presented in Statement 14 have been found to down cast and cross cast. No material errors were identified.

[18] Email correspondence between Network Rail (Liam Rattigan) and ORR (Gordon Cole), dated 3rd February 2015 refers.
[19] *ibid*

Review procedure (ORR mandate)	Arup assessment: Statement 14 (Renewals unit costs, volumes and expenditure)
7-Where applicable the disaggregated amounts for England and Wales and Scotland add up to the Great Britain amounts	Disaggregated amounts for England & Wales, for Scotland and each operating route have been found to add up to the Great Britain amounts. The disaggregated amounts broken down by operating route have been found to add up to the Great Britain amounts.
8-Network Rail's narrative supporting the statement is reasonable and the details set out in the commentary agree to the underlying accounting records or other supporting documentation	Network Rail's narrative on Statement 14 provides commentary with regard to the volumes of activity vs. baseline for the different asset areas, but does not provide any commentary on unit costs. Network Rail explains that it considers renewals unit cost measures to be of limited usefulness given the variety and heterogeneous nature of renewals activities that individual RUC categories normally encompass. [20] Notwithstanding these comments, the narrative can only be considered as partially supporting the results presented given no unit cost-related commentary is provided. We consider it would be feasible for Network Rail to provide some high-level explanation of the variances in the unit cost figures, as it does on the volumes. The renewal unit costs are formulated from credible source data (see above) and are still likely to yield meaningful insights into levels of cost incurred for at least some areas of renewals activity.

[20] The narrative also notes the project-by-project basis for measuring financial performance through Statement 5 as its preferred approach. We discuss the analysis of renewals expenditure as through the FPM measure (as reported through Statement 5) in Chapter 3 of this report

6.4 Confidence grading analysis

We set out the results of our confidence grading analysis for the renewals unit costs presented in Statement 14 in the table below.

Grading	Result and description	Rationale
Reliability grading	"A" - Sound textual records, procedures, investigations or analysis properly documented and recognised as the best method of assessment. Appropriate levels of internal verification and adequate numbers of fully trained individuals.	The process for calculating renewals unit costs is clearly documented. This involves the total cost for each defined RUC activity being divided by the volume of work delivered. Input costs and volumes are laid out in full in the Statement 14 table. Extraction of source data feeding into the calculations has been found to be consistent with the approach described in the Cost & Volume handbook. The calculations are performed at year-end by the central finance team. On this basis, we consider the reliability grading of "A" to be representative of this process.
Accuracy grading	"1" - Calculation processes automated (to a degree commensurate with dataset size); calculations verified to be accurate and based on 100% sample of data; external data sources fully verified. KPIs expected to be accurate to within ±1%.	Renewals unit costs are produced via a simple calculation (as described above). The RUC figures have been found to have been correctly computed through the Excel spreadsheet provided by Network Rail containing all of the GB, England & Wales, Scotland and route-level figures, as presented in Statement 14. No discrepancies or computational errors were identified. On this basis, we consider the accuracy grading of "1" to be representative of accuracy of RUC figures calculated for Statement 14.

In summary, based on the review process described above, our confidence grading for the renewals unit costs calculated for Statement 14 is **A1.**

6.5 Conclusions

Our review of Statement 14 has found renewals unit costs to have been correctly calculated and presented on a basis consistent with the RAGs and Network Rail's Cost & Volume handbook, with 14/15 outturn volume and cost data correctly extracted from source data systems. Baseline cost data have been correctly derived from Network Rail's 2014 Delivery Plan.

The calculation process has been found to be clearly and logically laid out within the Statement 14 tables, with both aggregated figures for GB, England & Wales and Scotland, and figures for each individual route presented. The figures have been found to be correctly calculated with no discrepancies or calculation errors identified. On this basis, a confidence grading of A1 has been assigned.

The management commentary accompanying the Statement 14 figures provides only a partial narrative, commenting on variations in volumes of work delivered but with no commentary on unit costs. Network Rail has explained that it considers renewals unit cost measures to be of limited usefulness given the variety and heterogeneous nature of renewals activities. However, we consider it would be feasible for Network Rail to provide some high-level explanation of the variances in the unit cost figures, and that these are still likely to yield meaningful insights into levels of cost incurred for at least some areas of renewals activity.

7 Spend to save and Third Party Promoted elements – Statement 3

7.1 Overview

Statement 3 of the regulatory accounts provides details of enhancement capital expenditure during the year. The enhancement projects presented fall into two main categories:

- enhancement projects encompassed within the ORR's expenditure allowances set out in the PR13 determination; these account for the vast majority of enhancements spend (96% of 14/15 enhancement spend); and
- enhancement projects not specified by ORR's PR13 determination but approved by ORR.

In line with our mandate, this part of our review relates principally to the latter – which we term "non-PR13" enhancements. The focus of our review has been the eligibility of non-PR13 capital expenditure for addition to Network Rail's Regulatory Asset Base (RAB).

We have focused on two of the types of non-PR13 enhancements projects that may be eligible for RAB addition.

Third party promoted schemes[21] are those schemes instigated by promoters other than government (DfT or Transport Scotland) or Network Rail. Examples of third party promoters include local authorities, Transport for London, or train operators. Third party enhancement schemes can seek ORR approval for financing backed by a RAB addition, subject to fulfilment of criteria around affordability, capability, and efficiency.[22] An "in advance" approval for RAB addition from ORR can either be "in principle" without a pre-determined amount or capped with a specific amount.

Spend-to-Save schemes are projects promoted by Network Rail that are considered self-financing, i.e. capable of providing sufficient returns on investment (through cost savings or revenue enhancement) to cover the associated return on the RAB. The ORR expects Network Rail to identify and pursue opportunities to increase its revenue through schemes not necessarily identified in PR13, for example through commercial and retail schemes at stations. In general, where schemes are demonstrated as being capable of generating total revenue to

[21] As defined in the 2010 ORR Investment Framework Consolidated Policy & Guidelines
[22] Paragraph 59 in Section 4.1 of the Investment Framework Consolidated Policy & Guidelines specifies the criteria that must be met before ORR would approve a RAB addition using RAB-backed financing, including considerations for affordability, capability, and efficiency.

cover the associated return on the RAB, ORR has agreed in principle to add the capital expenditure on such schemes to the RAB.[23]

We have reviewed a selection of six sample projects and evaluated the appropriateness of including their reported spend in 2014/15 for RAB addition: five third-party promoted schemes plus one spend to save scheme.

In addition, the ORR has requested that we review a sample of three retail schemes – , ✂ . Although these fall under the enhancements category, "income generating property schemes", which was included within the PR13 determination, we have evaluated the three "income generating property schemes" against the same criteria as the Spend to Save schemes. This is because the schemes are of a similar nature to projects defined as Spend to Save,[24] therefore we have evaluated the eligibility of expenditure during FY 14/15 associated with these schemes on the same basis.

7.2 Methodology

We have reviewed the suitability of capital expenditure on a sample selection of enhancement projects according to the criteria set out by ORR in the Investment Framework Guidance (included within the mandate – see Appendix A).

The key issue relates to whether the enhancement expenditure for the given project is suitable for RAB addition based on Investment Framework criteria and/or any previous ORR approvals.

For third party promoted schemes, key criteria include the following:

- Is the scheme correctly categorised as third-party promoted, RAB financed?
- When will the scheme be completed?
- Has an ORR RAB addition approval in detail letter been issued previously for the scheme?

For spend to save schemes key criteria include the following:

- Clarity around the type of scheme, and how it is going to be paid for
- The extent to which a reasonable test of its value/benefits has been performed, and the economic criteria used.
- Whether the delivery method likely to be efficient?

[23] See Policy framework for investments: Guideline on implementation arrangements & processes (March 2006) paragraph 2.38 and The Policy Framework for Investments: Conclusions (dated October 2005) paragraph 2.22.
[24] According to the RAGS, p.21 (footnote 26), the types of scheme that can be included in the spend to save framework include: "(c) income generating schemes that provide additional property income; and (d) other cost saving or income generating schemes."

- What was/will be built and does it deliver business benefits that were intended?
- What was/will be the efficient price for the works?
- Returns on investment from tenancy / lease / other arrangements.
- Lease type (if any).
- What should be added to the RAB and when?

We have applied the above spend-to-save criteria to our review of the three income-generating property schemes (included within PR13) that were included in the ORR sample.

Our methodology has involved a desk-based review of documentation provided by Network Rail relating to each scheme and its specific characteristics and financing arrangements, as well as conversations and requests for supporting information where necessary. Documentation provided for review includes:

- Correspondence between Network Rail and the ORR relating to the project sample.
- Investment authority papers (normally encompassing a summary of the business case and rationale for the given investment scheme).
- Cost surveys and analysis for the projects (including external studies commissioned by Network Rail).
- Specific written responses, emails etc. provided by Network Rail in response to Arup queries.

(We note that a full list of documentation received is included in Appendix B.)

We list the projects sampled in our review in the table overleaf.[25]

[25] We note that Statement 3 of the Regulatory Financial Statements provides total expenditure figures of spend to save and third party promoted schemes but does not provide a breakdown by the individual schemes listed above. Project specific details were provided to us by Network Rail in two excel spreadsheets (file names: Enhancement project spend.xlsx and PR13 Non PR13 Enhancements.xls).

Project Title	Route	Completion Date	Total expenditure to date	Total expenditure 2014/15
Third-Party Promoted Schemes (non-PR13)				
Nottingham Hub	East Midlands	Mar 2015	✂	
SWT Franchise (RAB)	Wessex	Mar 2017		
EMT Franchise Programme	East Midlands	Apr 2011[26]		
SSWT HLOS Asset Purchase Agreement	Wessex	ongoing		
HS1 - NLL Link[27]	LNE	Dec 2012		
Spend to Save Schemes (non-PR13)				
Mountfield	Network-wide	Oct 2014	✂	
Property Schemes (PR13) [28]				
✂				

We note that one further third party promoted scheme, ✂ , was also listed as one of the sample projects selected by ORR. During the review it was established that the project was paid for from an insurance claim and hence the ✂ expenditure from 2014/15 relating to the scheme is no longer considered for RAB addition. Network Rail has informed us that once certain thresholds are reached and certain conditions triggered expenditure on remedial projects can become funded by third parties under the company's insurance arrangements.

Our findings for each scheme are presented in Section 7.3, in the order of their appearance above. Relevant criteria for each scheme, and our findings in relation to them, are set out in the results tables that follow.

Key documentation for this section of our review has included:

- Statement 3 of the regulatory accounts
- Policy Framework for Investment: Conclusions (ORR, October 2005)
- Policy Framework for Investments: Guidelines on Implementation Arrangements & Process (ORR, March 2006).
- ORR approval letters for selected schemes.
- Documentation, email correspondence and other written details from commercial management teams relating to specific details of the projects.

[26] EMT Franchise Programme has experienced schedule slippage from the original April 2011 completion date. Activity is expected to drop off in Period 5 of 2015/16.
[27] During our review, Network Rail agreed the HS1-NLL Link scheme should have been categorized as government investment scheme rather than third party investment scheme. We note that the amount of expenditure incurred on the project during 2014/15 was immaterial (only £4k).
[28] Reported under Other projects – Income generating property schemes in RFS.

7.3 Results - third party promoted schemes (non-PR13)

7.3.1 Project 1 - Nottingham Hub (Project No. 102541), East Midlands Route

Description: The Nottingham Hub scheme was promoted by East Midlands Trains and Nottingham City Council. The scheme is to deliver a renewed and refurbished Nottingham Station. Network Rail is contracted to deliver the construction works relating to this scheme. With [redacted] of capital expenditure during 2014/15, this is by far the largest amount of third party enhancement spend for any project during 2014/15 (accounting for 41% of total third party enhancement spend during the year.

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
Is the scheme correctly categorised as third-party promoted, RAB financed?	The scheme was instigated by East Midlands Trains and Nottingham City Council, two non-central government third parties. The project is sponsored and funded by the two aforementioned promoters with additional RAB financing. Hence the scheme is correctly categorized as a third-party promoted scheme (according to paragraphs 6.2 and 6.3 of the Investment Framework Consolidated Policy & Guidelines published by ORR in October 2010) with RAB financing.
When will the scheme be completed?	The scheme was completed on March 31, 2015.
Has an ORR RAB addition approval in detail letter been issued previously for the scheme?	An ORR letter dated June 14, 2010 provides approval for RAB addition to the amount of [redacted] (in 2010/11 prices). The total spend to date[29] is [redacted].
Conclusion: Is the spend included in the RFS suitable for RAB addition based on Investment Framework criteria and any previous ORR approvals.	The scheme's total spend to date of [redacted] ([redacted] pre-CP5 and [redacted] during 2014/15) is within the ORR approved amount ([redacted] in 2014/15 prices) after adjusting for inflation[30]. We understand the full scope of work for the scheme was completed by March 31 2015. Since the scheme was completed within the budget in the ORR approval, we consider the spend of [redacted] incurred during 2014/15 to be suitable for RAB addition.

[29] As shown in Enhancement project spend.xlsx provided by Network Rail
[30] Adjustment for inflation based on RPI CHAW index, as specified in paragraph 2.4 of CP5 Regulatory Accounting Guidelines

7.3.2 Project 2 - South West Trains (SWT) Franchise Programme (Project No. 106348), Wessex Route

Description: This investment scheme comprises station enhancement works across the Wessex route, including works to ease congestion at Vauxhall and Clapham Junction stations. The works will be delivered by Stagecoach South West Trains (SSWT) Ltd through an Asset Purchase Agreement. In addition to RAB financing, fund will be provided by SSWT through a combination of facility charge, an increase in the long term charge (LTC), an increase in depot rent, and track access charge. This process for reimbursing Network Rail of the final cost of the programme has been agreed with SSWT, Department for Transport (DfT) and the ORR.

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
Is the scheme correctly categorised as third-party promoted, RAB financed?	The scheme is correctly categorized as third-party promoted, RAB financed. The scheme was instigated by Stagecoach South Western Trains (SSWT) Ltd, a non-government entity. Network Rail has agreed to provide financing based on the RAB addition.
When will the scheme be completed?	The investment scheme is scheduled to complete in March of 2017.
Has an ORR RAB addition approval in detail letter been issued previously for the scheme?	An ORR letter dated March 4, 2008 confirmed the scheme's process conforms to ORR's investment guidelines, and efficient spend of the scheme will be eligible for RAB addition. The letter provides in-principle approval for RAB addition without specifying a cost cap.
Conclusion: Is the spend included in the RFS suitable for RAB addition based on Investment Framework criteria and any previous ORR approvals.	The SWT Franchise Programme represented ✂ of expenditure during 2014/15. The in-principle approval for RAB addition does not include a cap amount for the scheme. Network Rail has provided investment authority documentation explaining the business case and describing the procurement approach for the programme. Works have been directly remitted by the train operating company (SSWT) which is overseeing the tendering and delivery process. Although the works form part of the RAB, they are funded by SSWT through the facility charge mechanism or an increase in the long term charge. We consider that this approach is likely to incentivise an efficient procurement and delivery process since SSWT, a commercial operator, will be directly impacted by

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
	the costs for the works. We consider this to be reasonable evidence that the ✂ incurred during 2014/15 is likely to have been expended efficiently and therefore we consider this expenditure to be suitable for RAB addition.

7.3.3 Project 3 - East Midlands Trains (EMT) Franchise Programme (Project No. 113447), East Midlands Route

Description: The programme proposed by EMT is comprised of a number of individual projects to:

- improve facilities for maintaining and fuelling the train fleet;
- improve station facilities available to passengers by improving the station environment, upgrading passenger information systems and CCTV and installing ticket vending machines and automatic gatelines; and
- increase the number of station car park spaces available.

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
Is the scheme correctly categorised as third-party promoted, RAB financed?	The scheme is correctly categorized as third-party promoted, RAB financed. The scheme is promoted by the train operator EMT. Network Rail has agreed to provide financing based on the RAB addition. Funding for the scheme will be recovered via the combination of: • an increase in the long term charge • facility charge, • depot rent, and • track access charge.
When will the scheme be completed?	The investment scheme was originally scheduled to complete in April of 2011. However, due to schedule slippage, the work is expected to finish in mid-2015/16.
Has an ORR RAB addition approval in detail letter been issued previously for the scheme?	An ORR letter dated March 12, 2009 confirmed the scheme's process conforms to ORR's investment guidelines and will therefore be eligible for RAB upon demonstration

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
	of efficient outcome. Furthermore, an ORR letter dated July 20, 2009 reaffirmed the scheme's compliance to ORR's investment guidelines and agreed in principle that the residual cost of the enhancement at [redacted] can be added to the RAB at the start of CP5.
Conclusion: Is the spend included in the RFS suitable for RAB addition based on Investment Framework criteria and an previous ORR approvals.	The project incurred [redacted] of expenditure during 2014/15. Total expenditure to date on the scheme is [redacted], well under the [redacted] approval amount. Network Rail has provided investment authority documentation explaining the business case and describing the procurement approach for the programme. Works have been directly remitted by the train operating company (EMT) which is overseeing the tendering and delivery process. Although the works form part of the RAB, they are funded by EMT through an increase in the long term charge, facility charge, depot rent, or track access charge as applicable. We consider that this approach is likely to incentivise an efficient procurement and delivery process since EMT, a commercial operator, will be directly impacted by the costs for the works. Therefore the [redacted] incurred by this scheme during 2014/15 is likely to have been expended efficiently on this basis, and we consider this expenditure to be suitable for RAB addition.

7.3.4 Project 4 - Stagecoach South West Trains (SSWT) High Level Output Specification (HLOS) Asset Purchase Agreement (Project No. 133365), Wessex Route, Third Party Promoted Scheme

Description: As part of the Department for Transport (DfT) High Level Output Specifications (HLOS), Stagecoach South West Trains (SSWT) increased the capacity on the network by undertaking works enabling 10-car train operation on selected routes with works commencing in November 2012. The scheme involved the development, delivery and financing of:

- Wimbledon Depot: new maintenance facilities;
- additional sidings at Farnham Depot and Guildford North Box Sidings; and
- various other minor works.

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
Is the scheme correctly categorised as third-party promoted, RAB financed?	The scheme is correctly categorized as third-party promoted, RAB financed. The project was sponsored and funded in part by SSWT, the operator, with Network Rail providing RAB financing.
When will the scheme be completed?	Network Rail clarified the delivery timescale for works under this scheme is related to the timescale of the SSWT franchise (which runs until February 2017). We understand there are various ongoing works being carried out under this scheme.
Has an ORR RAB addition approval in detail letter been issued previously for the scheme?	An ORR letter dated November 7, 2012 provides in-principle approval for RAB addition for the HLOS improvement works at Wimbledon and Farnham depots in the amount of [redacted].
Conclusion: Is the spend included in the RFS suitable for RAB addition based on Investment Framework criteria and any previous ORR approvals.	The project incurred [redacted] of expenditure during 2014/15. Total expenditure to date on the scheme is [redacted], well under the [redacted] ORR approval amount. Network Rail has provided investment authority documentation explaining the business case and describing the procurement approach for the programme. Works have been directly remitted by the train operating company (SSWT) which is overseeing the tendering and delivery process. The paper sets out the requirement on SSWT to submit post tender purchase prices to NR for approval for each individual scheme. SSWT is then responsible for the delivery of the project for the agreed price (taking any risk around potential cost overruns). Although the works form part of the RAB, they are funded by SSWT through facility charge payments that will be amortised over the agreed lifetime of the asset. On the basis of the evidence presented, we consider the [redacted] during 2014/15 to be suitable for RAB addition.

7.3.5 Project 5 - HS1-NLL Link (Project No. 123382), London North East Route

Description: This project involves re-commissioning of a 0.6km section of track linking HS 1 with the North London Line (NLL) at Camden Road Incline Junction in north London. The link is covered in an Operations and Maintenance Agreement with HS1 and part of the link is Network Rail infrastructure.

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
Is the scheme correctly categorised as third-party promoted, RAB financed?	Based on the authority request for the scheme (dated January 9, 2012), the scheme is sponsored by Network Development, a division of Network Rail. Since Network Rail is not qualified as a third party, the scheme should not be categorized as a third party promoted scheme. In an email dated June 26, 2015, Network Rail confirmed that the scheme should be authorized as a Department for Transport investment scheme rather than a third party promoted investment scheme.
When will the scheme be completed?	The scheme was completed on December 31, 2012.
Has an ORR RAB addition approval in detail letter been issued previously for the scheme?	Network Rail provided an ORR approval letter dated March 9 2010 but the letter, which predates the scheme's authority request dated January 9 2012, did not specifically mention re-commissioning work.
Does the scheme have government support?	At the time of writing, Network Rail has not provided evidence of DfT confirmation of support for the scheme. Exemption to government support is not applicable as the scheme is not expected to generate incremental revenue and hence does not meet the criteria of 'self-financing'.
Does the scheme add to the economic value of the rail network and has scheme been selected using a reasonable test of its value/ benefits?	In the Authority Request (dated January 9 2012), it shows the scheme will bring no economic benefits/increase in income. The scheme will not lead to additional revenue as it will not generate any facility charges.
Are we clear that the work is not already funded as either an enhancement or a renewal?	The work has not been funded as either an enhancement or renewal in the PR13 (or PR14 determination for HS1).
What is the repayment mechanism and period?	According to the Authority Request (dated January 9 2012), there is no repayment mechanism for the scheme as it will not generate additional revenue.

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
Was the delivery method likely to be efficient?	✂
What will be/was built and does it deliver business benefits that were intended?	Whilst the work is critical, it does not generate any additional business benefits (with NPV equal to ✂ in the Authority Request).
What was / will be the efficient price for the works	✂
Conclusion: Is the spend included in the RFS suitable for RAB addition based on Investment Framework criteria and any previous ORR approvals.	During our review, Network Rail confirmed that this Network Rail-sponsored scheme should not be categorized as a third party promoted investment scheme. Network Rail also clarified it considers this a DfT investment framework scheme (as described in paragraph 4.40 of CP5 Regulatory Accounting Guidelines dated April 2014). According to the Authority Request, the scheme is not expected to generate any additional revenue and hence may not satisfy RAB addition requirements (regardless of whether it is categorized as third party promoted or government-sponsored investment scheme). ✂ Network Rail provided an ORR approval letter dated March 9 2010 but the letter, which predates the scheme's authority request dated January 9 2012, did not specifically mention re-commissioning work. In light of the above, based on the evidence presented to date, we are not able to conclude on the scheme's eligibility for RAB addition.

7.4 Results – spend to save schemes (non-PR13)

7.4.1 Project 6 - Mountfield (Project No. 142572), Network Wide

Description: The Mountfield scheme comprises Network Rail acquiring more than 100 rail freight sites (about 10 acres in total) across Britain from three freight operating companies. A small proportion of the sites and facilities had been underutilized or inoperable prior to the acquisition. The scheme is intended to help Network Rail to make better use of the network, providing improved access to freight operators and adding capacity at critical points on the East Coast and West Coast main lines.

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
Can you identify clearly what type the scheme is?	The scheme comprises Network Rail acquiring more than 100 freight sites from three operators ✂ .
How is it going to be paid for?	Incomes from future development at the freight sites (for rail or non-rail uses) will pay for the cost to acquire the freight sites. Spend to date on the scheme is ✂ , of which ✂ was incurred in 2014/15.
Are we clear that it is not already funded as either an enhancement or a renewal?	The scheme was not included as an enhancement or renewal work in the PR13 determination.
Has scheme been selected using a reasonable test of its value/benefits	In the minutes of a meeting of the board of Network Rail Limited held on 20 February 2014 (a public document), it was reported that the acquisition of the 108 leaseholds in Project Mountfield will cost a total sum of ✂ . Furthermore the document stated "(t)he proposal was seen as a good strategic fit but the underlying business plan had been weak and required significant work. A more detailed plan showing what benefits are to be delivered by the proposal would be developed but the proposal was nevertheless **APPROVED**." Network Rail subsequently hired ✂ to complete an independent valuation assessment of the scheme. The results of this exercised (summarized in a letter from ✂ dated 29 March 2014) confirmed that Network Rail had paid an appropriate price for acquiring the leaseholds, at a level in line with ✂ independent valuation.

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
Economic Criteria	The driver of the scheme is to consolidate ownership of freight sites and revitalize underutilized assets.
Was the delivery method likely to be efficient?	Approximately [redacted] of the project budget was set aside for remedial works to improve the quality of track at acquired sites. The majority of these works have been overseen by renewals and maintenance teams. We understand Network Rail used its established delivery method of using contractors under framework agreement or maintenance term contractors who are appointed competitively. We consider this method is likely to be capable of facilitating efficient delivery of these works.
What was/will be built and does it deliver business benefits that were intended?	The scheme relates primarily to the acquisition of the leaseholds from three rail freight operators. Network Rail has advised that the [redacted] of track remedial works on the sites were effectively delivered, evidenced through track reports showing faults having been rectified. We understand the sites are now being leased freight train operating companies with lease terms ranging from 5 to 50 years.
What was/will be the efficient price for the works?	As indicated above, a proportion of the capital expenditure related to Project Mountfield - [redacted] in total – is associated with track remedial works performed at the sites. Network Rail has informed us that the scope of works was defined by its track engineers and then reviewed by infrastructure projects (IP). A cost estimate was then carried out against known parameters and benchmarking also undertaken, with this estimate used as price cap for the works. Network Rail has provided evidence that the [redacted] track improvement works were completed in full, within the full scope delivered within the price specified. Therefore, we consider [redacted] is likely to represent an efficient price for the physical works. The remaining capital expenditure incurred relates to acquisition costs for the sites. As indicated above, the acquisition price was validated through an independent valuation exercise by [redacted].
Tenancy	We understand that the freight sites have been leased and occupied by freight train operating companies.

Review procedure (ORR mandate)	Arup assessment: Statement 3 (Spend to save and Third Party Promoted elements)
Lease type (if any)	Freight commercial leases, with remaining lease terms ranging from 5 to 50 years.
What should be added to the RAB and when?	The total eligible spend for addition to the RAB in CP4 is [redacted] [31]. The eligible spend (net amount after factoring income) for addition to the RAB in CP5 is [redacted]. The AFC for the scheme is [redacted] [32].
Conclusion: Is the spend included in the RFS suitable for RAB addition based on Investment Framework – spend to save criteria and any previous ORR approvals?	Network Rail has provided investment authority and business case documentation setting out the economic benefits and the business case for the project. Alongside these internal documents, the scheme has also undergone an external validation of the leasehold purchasing costs for the sites (which form the bulk of the investment costs) by an independent consultant. Costs were also incurred relating to track remediation measures at the sites; we understand these works were subject to detailed scope planning and were competitively tendered. Overall, we consider there to be reasonable evidence that the [redacted] of spend incurred under this scheme during 2014/15 is suitable for RAB addition.

7.5 Results – Retail Schemes (PR13)

[redacted]

31 [redacted] .

32 ditto

7.6 Conclusions

We have reviewed a sample of nine investment enhancement schemes chosen by ORR. These have included six non-PR13 enhancement projects, and three retail schemes (included within PR13 as part of the enhancement expenditure designated for “income generating property schemes”).

Of the six non-PR13 schemes reviewed, five are classified as third party promoted schemes. We have found all but one of the third-party promoted schemes to be correctly categorized as a third-party promoted RAB financed scheme. Based on our review of the data provided by Network Rail, we have found the 2014/15 spend incurred for the four correctly categorized third party promoted schemes should be suitable for RAB addition.

The remaining project identified in the sample as a third-party promoted scheme is the High Speed 1-North London Line project (HS1-NLL). Network Rail has confirmed in the course of this review that this project has been incorrectly designated as a third-party scheme, and that the project was in fact promoted by a division of Network Rail, and mandated by UK government (Department for Transport). (We note that during 2014/15, the HS1-NLL incurred only a very small amount of cost - ✂ in total).

The other non-PR13 scheme we reviewed is a spend to save scheme – Project Mountfield. Whilst there were some discrepancies in the information we originally reviewed regarding the scheme’s business case, Network Rail has since provided information to confirm the robustness of the final business case for the project.

In addition to the six non-PR13 schemes, we have reviewed three income-generating property schemes included within the PR13 determination. These schemes have been evaluated against the same criteria as the (non-PR13) spend to save schemes; this is because the retail schemes are of a similar nature to spend to save projects, therefore we have evaluated their eligibility of spend associated with these schemes for RAB addition on the same basis.

For all three retail schemes, Network Rail used existing framework providers and established competitive tendering processes. We consider such process are likely to have helped achieve efficient pricing for the works.

However, two of the retail schemes - ✂ – have undergone a significant amount of post contract scope change. At ✂ this has resulted in costs increasing from an original investment authority amount of ✂ to ✂ actually incurred. It is possible that the price for the works could have been more efficient had the scope of work been subject to less alteration since the original tendering time.

8 Recommendations

Financial performance measure (Statement 5)

Recommendation 1

We recommend that Network Rail provides more specific explanations of the ORR's financial reporting policies and principles within relevant sections of the FPM handbook. This should lead to a greater understanding of the purpose and objectives of the measure to those involved in the reporting process, as well as helping promote good reporting practice. We recommend that this includes direct references to relevant sections of the ORR's Regulatory Accounting Guidelines (and other policy documents where relevant), including drawing attention to the following:

- Requirements around the quality of reporting systems and processes (RAGS sections 2.5 – 2.6)
- Definitions of asset management "robustness" and "sustainability", and how this relates to levels of activity reported through FPM (RAGS sections 3.9, 3.56 – 3.67)
- Requirements to identify and explain the causes of underspend or overspend (RAGS sections 3.24 – 3.27)
- Rationale around adjustments relating to underdelivery of outputs (RAGS sections 3.28 – 3.55)

Suggested implementation timescale: within three months.

Recommendation 2

We recommend that Network Rail puts in place a structured plan to enhance reporting systems and procedures for maintenance and renewals FPM at route level. This would involve variances in spend being systematically analysed and categorized by "front-line" deliverers of maintenance and renewals activities. The aim would be for such analysis to become an inherent part of "business as usual" financial reporting each period by each route. Reported FPM out-/under-performance should be supported by a reasonable degree of detailed evidence in accordance with FPM principles, including usage of project-specific variance analysis or unit cost framework data where appropriate.

Suggested implementation timescale: within six months.

Recommendation 3

We recommend that Network Rail monitors and reports the proportion of live renewals projects / maintenance spend within each route for which variance vs. budget has been correctly reported in line with FPM principles. This process would involve review and challenge from the central finance team utilising periodically submitted data from the routes. The central team would analyse and compare submissions, following-up directly with respective routes to identify areas of non-compliance where improvements are needed. Levels of FPM reporting compliance could be compiled as a periodic or quarterly KPI across the business, and used to compare between routes and promote improvement.

Suggested implementation timescale: within six months.

Appendix A: ORR mandate

Mandate for Independent Reporter Lot 4

Title	CP5 regulatory financial statements 2014-15
Unique Mandate Reference Number	L4AR001
Date	11 March 2015
ORR Lot Lead	Nigel Fisher
ORR lead for this inquiry	Gordon Cole
Network Rail Lot Lead	Jonathan Haskins
Network Rail lead for this inquiry	Paul Marshall

Background

Condition 11 of Network Rail's licence requires the licence holder to prepare regulatory financial statements in relation to itself and, unless ORR otherwise consents, to Network Rail Infrastructure Finance. These must be prepared in accordance with Condition 11 and any Regulatory Accounting Guidelines from time to time issued by ORR.

Purpose

The objective of the independent reporter's review is to determine the reliability and accuracy of the information presented in certain sections of Network Rail's regulatory financial statements set out within this mandate.

The reporter should highlight areas of concern or non-compliance to Network Rail in a timely manner to allow necessary adjustments to FPM to be made in advance of the Regulatory financial statements being finalised. We expect an open and honest dialogue so that all parties can arrive at a consensus of financial performance in good time to meet the year end timetable. This approach is consistent with how the external auditor is expected to operate.

Scope

Paragraph 2.1 of the CP5 regulatory accounting guidelines (RAGs) specifies that the work of the independent reporters will generally include the following regulatory financial statements at both a national level (GB, England & Wales and Scotland) and for each operating route within England & Wales:

Statement	Description
5	Financial performance
12	Analysis of Network Rail's performance on the volume incentive
13	Maintenance volumes, unit costs and expenditure
14	Renewals volumes, unit costs and expenditure;

In addition the reporter is required to establish the accuracy and suitability of Network Rail's 'spend to save' and third party promoted enhancement expenditure for its addition to the RAB under Investment Framework (IF) arrangements as reported in Statement 3 of the regulatory financial statements.

The other regulatory financial statements are outside scope. The independent reporter is not required to form a view about the quality of the underlying accounting records as this forms part of the work of the external auditor.

Methodology

The reporter should comply with *International standard on review engagements 2400 (revised)- Engagements to review historical financial statements*, with the addition of the procedures below. ISRE 2400 applies to limited assurance engagements which are not conducted by the auditor of an entity. Any departure from the standard should be agreed with ORR.

Materiality

Whilst materiality is usually considered in the context of statutory financial reporting, the concept is fundamental to any financial information including regulatory financial reporting.

ICAEW guidance on reporting to regulators of regulated entities states that "materiality is a matter of professional judgement for the Independent Accountants/auditors, based on their understanding of the circumstances of the engagement and communications with the addressees of their report, and cannot be expressed purely as a numerical value. Accordingly, Independent Accountants do not quantify a level of materiality applied in their reports on Regulatory Information, nor do they express an opinion which is 'certified' to be within a numerical materiality value. This recognises that the concept of materiality is not capable of expression in such manner."

Consistent with the ICAEW guidance we consider that the independent reporter should form their own view of materiality in designing their review procedures and performing their review of Network Rail's regulatory financial statements.[33]

The reporter should also have regard to Regulatory Accounting Guidelines paragraphs 2.6 and 2.12 regarding the accuracy of information and adequacy of explanations supporting significant variances.

Minimum procedures

The following are suggested as the minimum procedures that should be undertaken by the independent reporter to provide an appropriate level of assurance.

The independent reporter may propose alternative or additional review procedures that it considers necessary to provide the assurance that ORR is seeking. In this case the independent reporter should discuss its proposed approach with both Network Rail and ORR before the work is undertaken.

[33] Available at http://www.icaew.com/~/media/Files/Technical/technical-releases/audit/AUDIT-05-03-Reporting-to-Regulators-of-Regulated-Entities.ashx.

Statement 5: Total financial performance

Management commentary

It became clear to both ORR and Network Rail in CP4 that the quality of management commentary is an important component of Network Rail's regulatory financial statements, specifically for its explanations of efficiency improvements and financial performance. Therefore, in addition to quantifying the variances between actual income and expenditure and the assumptions in our PR13 determination, our CP5 regulatory accounting guidelines also require Network Rail to identify the main reasons for variances and in particular the extent to which variances may be the result of financial out or under performance. This is important because the explanation of variances helps us understand how Network Rail is managing its business compared to the assumptions in our PR13 determination.

Because of this reporting requirement, the independent reporter should review whether the management commentary supporting Statement 5 provides a reasonable explanation of the financial out or under performance reported by Network Rail. This will require the use of judgement, in particular about whether the explanations provided by Network Rail are consistent with the independent reporter's understanding of whether the company's financial performance has been achieved on a sustainable basis.

The independent reporter should also assess whether the management commentary supporting the geographically disaggregated statements is consistent with that for the company overall.[34]

Specific procedures

The following are suggested as the minimum procedures that should be undertaken. Confirm whether:

1. Network Rail has clearly documented policies for the recognition of financial performance that are consistent with the ORR's regulatory accounting guidelines;
2. Network Rail has clearly documented processes for calculating financial performance within which assumptions are clearly laid out and which demonstrate consistency with documented policies;
3. the calculation is performed in two stages for each route as follows:
    a) a comparison of PR13 to CP5 Delivery Plan
    b) a comparison of actual / forecast costs to the CP5 Delivery Plan
4. the processes should show for each route:
    a) expenditure variances analysed between re-profiling of activity and financial out/ under performance;
    b) financial outperformance / underperformance should be assessed between scope and cost;

[34] An example of an inconsistency could be if Network Rail's commentary focussed on unit cost savings, but the underlying records show that the savings were due to Network Rail having undertaken a different mix of work.

5. there has been appropriate internal review at an appropriate level of seniority of whether Network Rail's actual calculations of financial performance are consistent with Network Rail's stated processes and policies and the ORR's regulatory accounting guidelines;
6. the commentaries are consistent with the information that has been assured above;
7. any financial outperformance that has been recognised in relation to maintenance and renewals has been achieved in areas where ORR accepts Network Rail has done sufficient work to sustain the network;
8. the amounts of income and expenditure used in the calculation have been correctly extracted from the underlying accounting records. The independent reporter is not required to form a view about the quality of the underlying accounting records as this forms part of the work of the external auditor;
9. the PR13 baselines used are the ones agreed by the ORR, these will be the financial targets for each route underpinning Network Rail's published CP5 Delivery Plan;
10. the sub-totals and totals in the table down cast and cross cast;
11. the disaggregated amounts for England & Wales and Scotland add up to the Great Britain amounts; and
12. the disaggregated amounts for England & Wales operating routes add up to the England & Wales amounts.

<u>Statement 12: Analysis of Network Rail's performance on the volume incentive</u>

As a minimum the independent reporter should confirm whether:

1. Network Rail's calculation of its performance on the volume incentive is in accordance with the PR13 determination. This should include an assessment of whether the data used to calculate the measures is of sufficient quality and consistent with the purpose of the measures;
2. where income or costs have been allocated that this allocation has been made on a reasonable basis and any other estimate used is reasonable;
3. baseline traffic data agrees to the published volume incentive baselines;
4. the sub-totals and totals in the table down cast and cross cast;
5. the disaggregated amounts for England and Wales, for Scotland and each operating route add up to the Great Britain amounts;
6. the disaggregated amounts broken down by operating route add up to the Great Britain amounts; and
7. Network Rail's narrative on the table is reasonable and the details set out in the commentary agree to the underlying accounting records or other supporting documentation.

Statements 13 and 14: Maintenance and renewals unit costs, volumes and expenditure

The reporter should assess the accuracy and reliability of reported renewals unit costs in accordance with its confidence grading system, in particular whether:

1. costs for each activity have been reported in accordance with the company's Cost & Volume Handbook;
2. cost information to calculate the unit costs has been correctly extracted from the underlying accounting records and that any estimates used are reasonable. The independent reporter is not required to form a view about the quality of the underlying accounting records as this forms part of the work of the external auditor;
3. volumes of work undertaken have been correctly extracted from the Network Rail's asset management information systems;
4. the resulting unit costs have been correctly calculated using the information in parts (3) and (4) above;
5. the PR13 baselines used are the ones agreed by the ORR, these will be the financial targets for each route underpinning Network Rail's published CP5 Delivery Plan;
6. where applicable the sub-totals and totals in the table down cast and cross cast;
7. where applicable the disaggregated amounts for England and Wales and Scotland add up to the Great Britain amounts; and
8. Network Rail's narrative supporting the statement is reasonable and the details set out in the commentary agree to the underlying accounting records or other supporting documentation.

Statement 3: Spend to save and Third Party Promoted elements

The Reporter should review a sample of projects that have been selected by ORR from the Period 11 Finance Pack. Projects may be substituted by ORR during kick of discussions with Network Rail and the reporter. The reporter should review the suitability of the selected project spend for addition to the RAB based on the criteria set out by ORR in the Investment Framework Guidance. We consider this review to be mainly a desk-based exercise, but the Reporter should consider whether it needs to visit project sites to conclude the review.

Third Party Promoted Schemes – see Table A

1) Is the scheme correctly categorised?
2) Has a RAB addition approval letter been previously issued by the ORR?
3) If so, is the proposed RAB addition, as set out in the backup to Statement 3, in line with the approval?
4) If not, does the scheme meet the Investment Framework criteria for RAB additions?

5) **Conclusion:** Is the spend included in the regulatory financial statements suitable for RAB addition based on Investment Framework criteria and any previous ORR approvals?

Spend to save – see Table B

1) Does the scheme meet the criteria detailed in Table B?
2) **Conclusion:** Is the spend included in the regulatory financial statements suitable for RAB addition based on Investment Framework-spend to save criteria and any previous ORR approvals?

Table A - Checklist for 3rd Party Funded projects

Reference Investment framework consolidated policy & guidelines Published by the Office of Rail Regulation October 2010

ORR question	Further information/Typical Response
All Schemes sampled	
Is the scheme correctly categorised as third party promoted, RAB financed?	Scheme is being promoted by a third party and financed via Network Rail's RAB with cost recovery arrangements in place (e.g. facility charge, template contract).
When will the scheme be completed?	Is this an interim or outturn position?
Has an ORR RAB addition approval in detail letter been issued previously for the scheme?	If yes: Is the proposed RAB addition in line with the approval i.e. where the approval was capped is the out-turn cost within the cap? If no: Where an ORR approval letter has not previously been issued (or only in principle) the following further checks will be required.
Schemes where an ORR approval in detail letter has not been previously issued	
Does the scheme have government support?	DfT / TS confirmation of support received. Government support not required if scheme meets the criteria of 'self-financing' franchised TOC promoted scheme as set out in the 2010 guidance.
Does the scheme add to the economic value of the rail network and has scheme been selected using a reasonable test of its value / benefits?	Generally this means the scheme must have a positive net present value (NPV) based on Network Rail's full pre-tax regulatory cost of capital. Clarity on how has scheme been prioritised (e.g. NPV/K, on back of larger renewal, franchise dependency) High-level benefits to be delivered identified (reduced journey times/delays etc.) Clarity on what is driving the scheme – and the implications of scheme not progressing Rate of return
Are we clear that the work is not already funded as either an enhancement or a renewal?	Is the scope of works distinct from condition based renewals and other enhancement projects funded through PR13?
What is the repayment mechanism and period?	Facility charge paid via track access charge, stations charges or direct contract with third party?

	The repayment period of the agreement should not exceed the asset life of the new asset.
Was the delivery method likely to be efficient?	Correct selection of contract, development of tender strategies, competitive tender, negotiated tender, in-house maintenance team or other delivery arrangements. Planning and programming, resource allocation, effective cost engineering and risk management.
What will be / was built and does it deliver business benefits that were intended?	Outline agreement on how it is proposed that the scheme 'deliverables' will be measured (i.e. just infrastructure change, or actual reduced delays) Clarity on change to the physical configuration/capability/ capacity of the network identified (e.g. 60 mph crossover replacing 15 mph) Quantitative information provided on what infrastructure changes are involved (e.g. number of SEUs/point ends being replaced) Future savings anticipated
What was / will be the efficient price for the works	Cost estimate prepared (and level of estimate understood) Market tested price
All Schemes	
Conclusion: Is the spend included in the RFS suitable for RAB addition based on Investment Framework criteria and any previous ORR approvals.	Conclusion should include a summary of spend showing split across control periods including any future forecast spend and clarity on price bases.

Table B - Checklist for spend to save projects

Reference 2005 Investment Framework Policy conclusions para 2.22 and 2006 Investment Framework: Guidelines on implementation arrangements & processes para 2.38

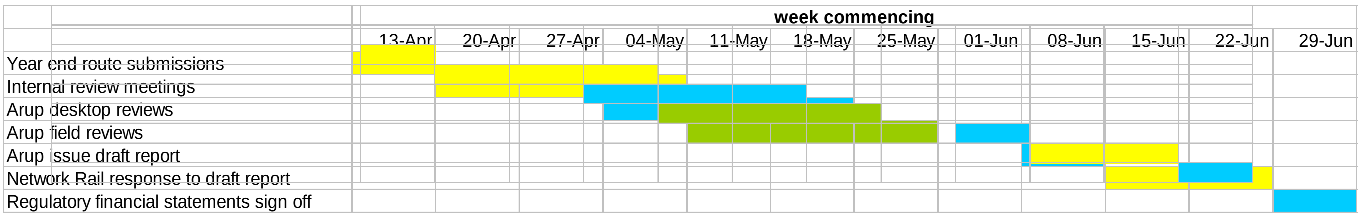
ORR question	Further information/Typical Response
Can you identify clearly what type the scheme is?	Commercial, industrial, residential, other.
How is it going to be paid for?	Rental income or any other source?

Are we clear that it is not already funded as either an enhancement or a renewal?	Distinct and different from anything already funded.
Has scheme been selected using a reasonable test of its value / benefits?	Clarity on how has scheme been selected and prioritised. Clarity on what is driving the scheme – and the implications of scheme not progressing: • Refurbishment prior to re-letting • Re-letting, tenant lined up • Re-letting, speculative • Existing tenant at lease break point • Linked with other (e.g. third party) improvement
Economic criteria	The scheme generate sufficient revenue in total to cover the return on the RAB Hurdle Rate
Was the delivery method likely to be efficient?	Competitive tender, negotiated tender, in-house maintenance team or other delivery arrangements.
What was / will be built and does it deliver business benefits that were intended?	Outline description of what is being built, e.g. refurbished railway arch to allow retail use. Have the intended outputs been delivered. Any future savings anticipated?
What was / will be the efficient price for the works?	Cost estimate prepared (and level of estimate understood). How are works / deliverables to be valued?
Tenancy	Vacant, occupied
Lease type (if any)	‘Solutions’ or standard. No. of years left to run.
What should be added to the RAB and when?	Any development costs? Outline agreement on how Network Rail intends to recover its costs (% of total scheme costs, fixed price, GRIP stage 5 etc.) When will project be complete? At present is this simply a stage / on-account payment?
Conclusion: Is the spend included in the RFS suitable for RAB addition	Conclusion should include a summary of spend showing split across control periods

based on Investment Framework – spend to save criteria and any previous ORR approvals.	including any future forecast spend and clarity on price bases.

Timescales and deliverables

- Emerging key issues: early May 2015
- Initial draft report issued by late May 2015
- Full draft report issued by mid June 2015
- Final report issued by end June 2015
- Detailed timetable for year end (to be agreed between Network Rail, ORR and Arup)



Related work

The statutory auditors review of some statements within the RFS, other independent reporter work as appropriate.

Independent Reporter Proposal

The Reporter shall prepare a proposal for review by the ORR and Network Rail on the basis of this mandate. ORR and Network Rail will review the proposal with reference to the criteria for selection – see attached guidance document.

The final approved proposal will form part of the mandate and shall be attached to this document.

It is anticipated that the work under this mandate should take approximately 100 man days. The reporter should take cognisance of this in preparation of the proposal. The proposal will detail methodology, tasks, programme, deliverables, resources and costs (including expenses).

The Reporter shall provide qualified personnel with direct experience in the respective disciplines to be approved by the ORR and Network Rail. The contractor is asked to submit details of the previous experience and qualifications of such personnel as part of their proposal.

Appendix B: Incoming document list

✂

Appendix C: Maintenance volumes, unit costs and expenditure – Statement 13: confidence grading

Overview

Our review of maintenance volumes, unit costs and expenditure as presented in Statement 13 of the regulatory accounts has included a confidence grading assessment, involving the assignment of accuracy and reliability gradings to the maintenance unit costs (MUCs) in accordance with the definitions set out in Appendix D.

Confidence grading methodology

Reliability

Our approach to the reliability grading assessment has combined our existing knowledge and analysis of the MUC process gained in previous years with a review of changes that have occurred to the process in year. Our key source of information is the MUC handbook and evidence of its utilisation.

Accuracy

We have applied the 2013/14 method for calculating accuracy using the following test procedures applied to the MUC source datasets:

YTD variance – analysis of variance between Year To Date (YTD) and baseline unit cost values,

Period variance – variance between period and baseline unit cost values for each route for each period,

Costs With No Units – review of proportion of Week 1 figures that have a cost associated with them but no volume of work recorded,

Units With No Costs – review of proportion of Week 1 figures that have a work volume recorded but no cost and

5% Error non-correction – Each MNT Code within each Delivery Unit was compared to the previous period's figures and any negative amount of either cost or units considered to be an error correction. These errors were then summed for each MNT Code and the unit cost uplifted by a rate of 5% of the error. The result is an estimate reflecting the total impact in accuracy terms of uncorrected errors.

We have combined the results of above calculations to derive an estimation of the overall accuracy level of the MUC data for each respective MNT code.

Results

Overall results obtained for the MUC review are described in the main body of the report (Chapter 5).

We list the detailed reliability and accuracy scores for each individual MUC activity code in the table below.

MUC code	Activity Description	Reliability Score	Accuracy Score
MNT004	MNT004 Plain Line Tamping	C	3
MNT005	MNT005 Stoneblowing Plain Line	C	3
MNT006	MNT006 Manual Wet Bed Removal	C	2
MNT007	MNT007 S&C Tamping	C	3
MNT009	MNT009 Mechanical Spot Re-sleepering	C	4
MNT010	MNT010 Replacement of S&C Bearers	C	2
MNT011	MNT011 S&C Arc Weld Repair	C	2
MNT012	MNT012 Mechanical Wet Bed Removal	C	3
MNT013	MNT013 Level 1 Patrolling Track Inspection	C	2
MNT014	MNT014 Mechanised Patrolling Track Inspection	C	3
MNT015	MNT015 Weld Repair of Defective Rail	C	2
MNT016	MNT016 Installation of Pre-Fabricated IRJs	C	3
MNT017	MNT017 Mechanical Reprofiling of Ballast	C	3
MNT020	MNT020 Manual Reprofiling of Ballast	C	2
MNT022	MNT022 PWAY Other	C	3
MNT024	MNT024 Electrification and Plant	C	1
MNT025	MNT025 Replenishment of Ballast Manual	C	2
MNT026	MNT026 Replenishment of Ballast Train	C	3
MNT027	MNT027 Maintenance of Rail Lubricators	C	2
MNT029	MNT029 Replacement of Pads & Insulators	C	2
MNT030	MNT030 Maintenance of Longitudinal Timber	C	2
MNT031	MNT031 Complete Treatment of S&C unit	C	2
MNT032	MNT032 CWR - Stressing	C	2
MNT033	MNT033 Jointed Track Hot Weather Preparation	C	2
MNT034	MNT034 Patrolling Track Inspection (Video) Plain Line	C	4
MNT035	MNT035 Patrolling Track Inspection (Video) S&C	C	4
MNT036	MNT036 Manual Correction of PL Track Geometry (CWR)	C	2
MNT037	MNT037 Manual Correction of PL Track Geometry (Jointed)	C	2
MNT038	MNT038 Manual Rail Grinding	C	2
MNT039	MNT039 Manual Spot Re-sleepering (Concrete)	C	2
MNT040	MNT040 Manual Spot Re-sleepering (Wood / Steel)	C	2
MNT041	MNT041 Manual Ultrasonic Inspection - (PL)	C	3
MNT042	MNT042 Manual Ultrasonic Inspection - (S&C)	C	2

MUC code	Activity Description	Reliability Score	Accuracy Score
MNT043	MNT043 Manual Ultrasonic Inspection - RCF	C	3
MNT044	MNT044 Rail Changing - Al-Thermic Weld - Standard Gap	C	2
MNT045	MNT045 Rail Changing - CWR - Renew (Defects)	C	2
MNT046	MNT046 Rail Changing - CWR - Renew Due to Wear	C	2
MNT047	MNT047 Rail Changing - Jointed Rail - Renew (Defects)	C	2
MNT048	MNT048 Rail Changing - Jointed Rail - Renew Due to Wear	C	2
MNT049	MNT049 Rail Lubricators Install / Remove	C	2
MNT053	MNT053 S&T Other	C	2
MNT054	MNT054 Rapid Response (S&T)	C	2
MNT070	MNT070 Inspections (Fencing, Vegetation, Drainage)	C	2
MNT071	MNT071 Inspections (Level Crossing - Access Points)	C	2
MNT072	MNT072 Fences and Boundary Walls	C	2
MNT073	MNT073 Drainage	C	3
MNT075	MNT075 Level Crossings Management (Off Track)	C	3
MNT079	MNT079 Spoil & Debris Clearance Outside Station Area	C	3
MNT081	MNT081 Vegetation Removal of Boundary Trees	C	2
MNT082	MNT082 Vegetation Management by Train	C	4
MNT101	MNT101 Telecoms Cable Maintenance	C	3
MNT102	MNT102 Concentrator Maintenance	C	3
MNT103	MNT103 DOO CCTV Maintenance	C	3
MNT104	MNT104 GSM-R Maintenance	C	3
MNT105	MNT105 Legacy Radio Maintenance	C	3
MNT108	MNT108 SISS- CCTV Maintenance	C	3
MNT109	MNT109 SISS - CIS Maintenance	C	3
MNT110	MNT110 SISS - Public Address	C	3
MNT111	MNT111 Telecoms Power Maintenance	C	3
MNT113	MNT113 Telecoms Other	C	2
MNT114	MNT114 FTN Maintenance	C	3
MNT120	MNT120 S&C - Renew crossing	C	3
MNT121	MNT121 S&C Inspection (Other)	C	2
MNT122	MNT122 S&C Maintenance (Other)	C	2
MNT123	MNT123 S&C Renew Half Set of Switches	C	2
MNT124	MNT124 Stoneblowing S&C	C	4
MNT125	MNT125 Track Inspection (Other)	C	3
MNT126	MNT126 Train Grinding - S&C	C	4
MNT127	MNT127 Transportation of Materials (To/From Site)	C	2
MNT128	MNT128 Lift & Replace Level Crossing for PWAY	C	2
MNT150	MNT150 Signalling Cables	C	2
MNT151	MNT151 Control Panels	C	2
MNT152	MNT152 Equipment Housing locations	C	3

MUC code	Activity Description	Reliability Score	Accuracy Score
MNT153	MNT153 Equipment Housing REBs	C	2
MNT154	MNT154 Mechanical interlocking	C	2
MNT155	MNT155 Point End Routine Maintenance non Powered	C	2
MNT156	MNT156 Point End Routine Maintenance Powered	C	2
MNT157	MNT157 Relay based interlocking	C	3
MNT158	MNT158 RETB	C	2
MNT159	MNT159 Signals Routine Maintenance colour lights	C	2
MNT160	MNT160 Signals Routine Maintenance mechanical	C	2
MNT161	MNT161 Train Describer / RCM	C	2
MNT162	MNT162 Train Detection - Axle Counters	C	3
MNT163	MNT163 Train Detection - TC's AC	C	2
MNT164	MNT164 Train Detection - TC's DC	C	2
MNT165	MNT165 Train Protection	C	2
MNT166	MNT166 UPS	C	3
MNT167	MNT167 Level Crossings	C	2
MNT168	MNT168 Electronic interlocking	C	3
MNT170	MNT170 Vegetation Management (Manual)	C	2
MNT171	MNT171 Vegetation Management (Mechanised)	C	3
MNT172	MNT172 Vegetation Management (Spray)	C	3
MNT173	MNT173 Level Crossings Other	C	3
MNT201	MNT201 E&P Other	C	2
MNT202	MNT202 E&P Patrolling / Inspection of 3rd Rail	C	3
MNT203	MNT203 E&P Patrolling / Inspection of OLE	C	2
MNT204	MNT204 Maintain / Test Air systems	C	4
MNT205	MNT205 Maintain AC Traction Power Supply Systems	C	3
MNT206	MNT206 Maintain Conductor Rail	C	3
MNT207	MNT207 Maintain CRE Cables	C	3
MNT208	MNT208 Maintain D&P Cables	C	3
MNT209	MNT209 Maintain DC Traction Power Supplies	C	2
MNT210	MNT210 Maintain Non-Traction Power Supplies	C	2
MNT211	MNT211 Maintain OHL Components	C	3
MNT212	MNT212 Maintain Points Heating	C	2
MNT213	MNT213 Maintain Signalling Power Supplies	C	2
MNT309	MNT309 Rail Grinding - PL Miles	C	1
MNT310	MNT310 Rail Grinding - S& C Point Ends	C	1

Based on the review process undertaken, our overall confidence grading for the maintenance unit costs calculated for Statement 13 is **C3.**

Appendix D: Confidence grading definitions

Our review of unit costs presented in Statements 13 and 14 of the Regulatory Accounts has included a confidence grading analysis. This is an assessment of data reliability and accuracy using an alpha-numeric scoring system that is based on the definitions set out below.

System Reliability Band	Description
A	Appropriate, auditable, properly documented, well-defined and written records, reporting arrangements, procedures, investigations and analysis shall be maintained, and consistently applied across Network Rail. Where appropriate, the systems used to collect and analyse the data will be automated. The system is regularly reviewed and updated by Network Rail's senior management so that it remains fit for purpose. This includes identifying potential risks that could materially affect the reliability of the system or the accuracy of the data and identifying ways that these risks can be mitigated. The system that is used is recognised as representing best practice and is an effective method of data collation and analysis. If necessary, it also uses appropriate algorithms. The system is resourced by appropriate numbers of effective people who have been appropriately trained. Appropriate contingency plans will also be in place to ensure that if the system fails there is an alternative way of sourcing and processing data to produce appropriate outputs. Appropriate internal verification of the data and the data processing system is carried out and appropriate control systems and governance arrangements are in place. The outputs and any analysis produced by the system are subject to management analysis and challenge. This includes being able to adequately explain variances between expected and actual results, time-series data, targets etc. There may be some negligible shortcomings in the system that would only have a negligible effect on the reliability of the system.
B	As A, but with minor shortcomings in the system. The minor shortcomings would only have a minor effect on the reliability of the system.

C	As A, but with some significant shortcomings in the system. The significant shortcomings would have a significant effect on the reliability of the system.
D	As A, but with some highly significant shortcomings in the system. The highly significant shortcomings would have a highly significant effect on the reliability of the system.
X	Data reliability cannot be measured

Notes:

1. System reliability is a measure of the overall reliability, quality, robustness and integrity of the system that produces the data.

2. Some examples of the potential shortcomings include old assessments, missing documentation, insufficient internal verification and undocumented reliance on third-party data.

Accuracy grading system

Accuracy Band	**Description**
1*	Data used to calculate the measure is accurate to within 0.1%
1	Data used to calculate the measure is accurate to within 1%
2	Data used to calculate the measure is accurate to within 5%
3	Data used to calculate the measure is accurate to within 10%
4	Data used to calculate the measure is accurate to within 25%
5	Data used to calculate the measure is accurate to within 50%
6	Data used to calculate the measure is inaccurate by more than 50%
X	Data accuracy cannot be measured

Notes:

1. Accuracy is a measure of the closeness of the data used in the system to the true values.

2. Accuracy is defined at the 95% confidence level - i.e. the true value of 95% of the data points will be in the accuracy bands defined above.