

Office of Rail and Road

Review of Network Rail's renewals and efficiency planning for years 1 and 2 of CP6



Independent Reporter Lot 4
Anglia Route Report - November 2019



Contents

1. Introduction 1
2. Renewals delivery assessment 3
3. Efficiencies delivery assessment 24



1. Introduction

An Independent Reporter review by Nichols was jointly commissioned by the ORR and Network Rail in April 2019. The mandate for the review set out the purpose: “to provide an independent assessment of Network Rail’s preparations to deliver its efficiency planning in the early part of CP6. The review should specifically consider the reasonableness of route’s renewals workbank planning and efficiency plans.”

The review was structured in two phases. Review phase 1 assessed the Scotland and Wessex routes, and a phase 1 report was issued in July 2019. A Stage Gate meeting was held after completing phase 1 to review the findings and lessons learnt. It was agreed to alter the emphasis for review phase 2, within the purpose of the original mandate, as follows.

For renewals:

- Additional emphasis on workbank maturity, notably detailed design and construction stages for year 1.
- Examine progress data captured by routes from delivery teams, agents and frameworks, for example, seeking assurance on remits for delivery, procurement, start of works, progress per GRIP stages.
- Review progress in developing the Leading Indicator process.
- Check risk resilience via over-programming, the approach to possession booking and any key enhancements interfaces.

For efficiencies:

- Reviewing fewer initiatives in more detail.
- Greater emphasis on capital expenditure (capex) efficiencies to explore ownership of delivery of post-efficient costs, robustness of plans and programmes to deliver these, implementation by Delivery Agents and governance/monitoring of implementation.
- Explicit reference to good practice in efficiency (benefits) realisation programmes.



Review phase 2 assessed six routes between July and September 2019; namely Anglia, London North East & East Midlands (LNE&EM), London North West (LNW), South East, Wales and Western.

This is a review phase 2 report that sets out the Reporter's assessment specifically for the Anglia route. There are five similar reports for the other routes being assessed in review phase 2. There is also a separate overall review phase 2 report that contains common themes from across the route reports.

The structure of this report is as follows:

Renewals workbank delivery assessment

- Renewals assessment methodology
- Route review context
- Assessment scope
- Assessment findings
- Conclusions and recommendations

Efficiencies plans delivery assessment

- Efficiencies assessment methodology
- Route review context
- Assessment scope
- Assessment findings
- Conclusions and recommendations

We would like to thank the Anglia routes for its cooperation and support during the review, providing a significant body of documents as evidence, professionally managing meetings for the review teams throughout the three day fieldwork phase, and responding to a series of additional clarifications on its renewals and efficiency plans; all of which was undertaken during the transition to Network Rail's new regional structure.

2. Renewals delivery assessment

2.1 Renewals assessment methodology

The Reporter mandate set out a high-level scope:

“The reporter should assess the preparedness of the route to deliver its renewals plan in CP6. This should be based on the latest data in Network Rail’s leading indicators report together with discussion with the route of the implications of the data. Based on its assessment, the reporter should identify opportunities for improving the route’s approach to reporting its preparedness for delivery of renewals workbanks in CP6.”

Renewals Delivery Reference Model

The Reporter’s methodology for assessing preparedness uses a Renewals Delivery Reference Model to provide a structure based on a simplified lifecycle with the following stages:

Stage 1 – Workbank planning

Stage 2A – Authorisation and project development

Stage 2B – Delivery planning

Stage 3 – Design and construction



The model is shown in Figure 1. The lifecycle based structure provides a timescale perspective to assessing delivery preparedness, for example:

For the current financial year (CP6 year 1) – The workbank plan is being actively measured through Stage 3 Design and Construction.

For the next financial year (CP6 year 2) – The workbank plan is being actively measured through Stage 2A Authorisation and project development and also Stage 2B Delivery planning.

For later financial years (CP6 year 3 onwards) – Expectation is the workbank plan is being actively measured through Stage 1 Workbank development and Stage 2A Authorisation and project development.

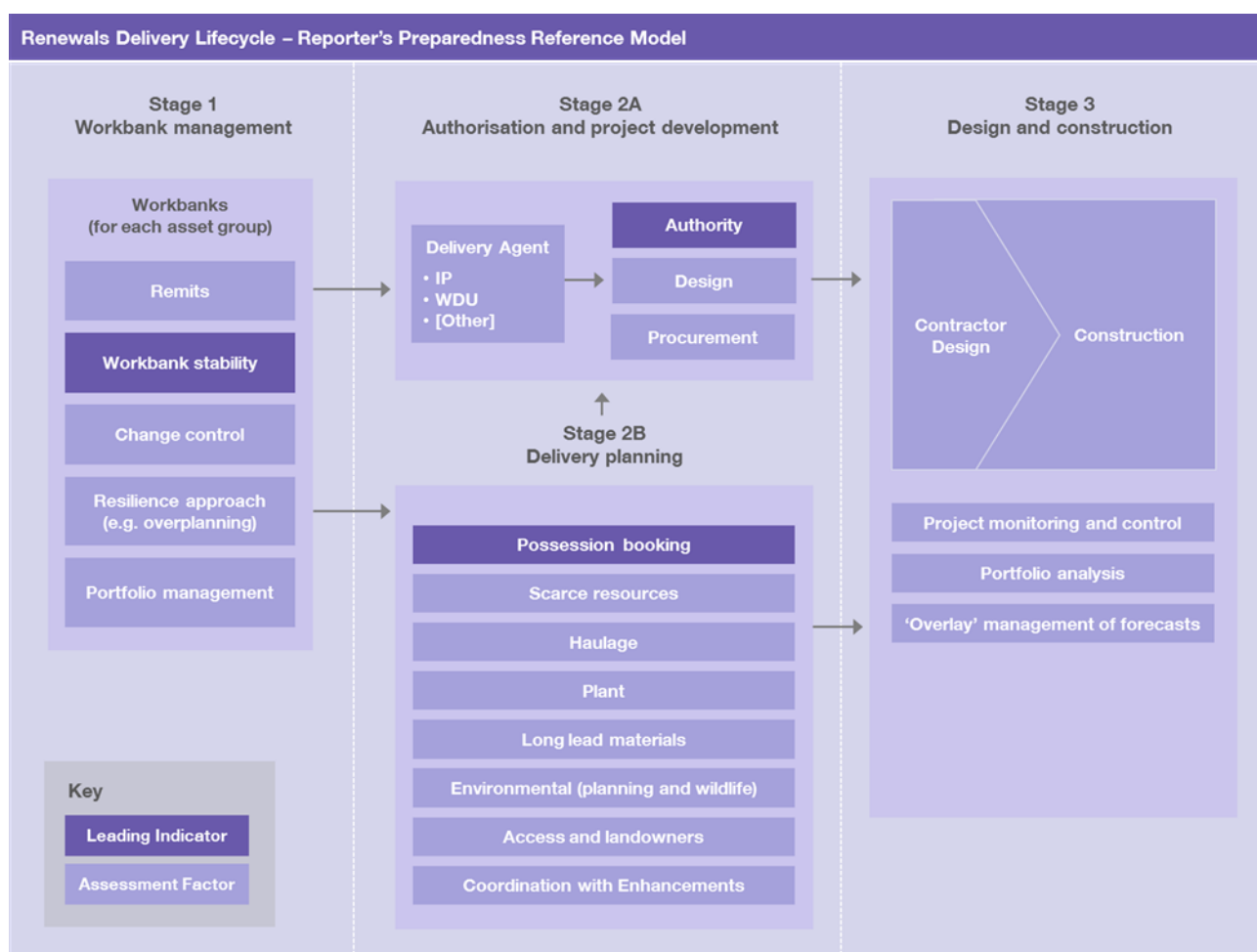


Figure 1: Renewals Delivery Reference Model



Assessment of Leading Indicators in phase 1

During review phase 1 we reviewed the available Leading Indicators; disruptive access, project authorisation and workbank stability. These are provided by each route into Network Rail centre and to ORR as a high-level summary of renewals delivery progress. We mapped the three Leading Indicators against the model to understand their scope of coverage and this is shown in Figure 1.

Our conclusion from phase 1 was that the Leading Indicators provided only a partial view of preparedness and we made a number of recommendations for improvements to indicators and metrics that could be used to provide a more complete picture.

Assessment methodology for phase 2

There was a change in emphasis for review phase 2 and the Reporter focus was on how each route was managing its preparedness for workbank delivery in year 1 (2019/20) and year 2 (2020/21). We examined the metrics and management controls being used by route management teams to assure themselves of workbank delivery. We sought to find evidence of route management and metrics using the Model to provide a structure for our assessment:

- 1.** Workbank planning. Workbank stability measures, active use of change control and planning resilience processes like over-planning.
- 2A.** Authorisation and project development. Remit, investment authorisation and procurement progress monitoring and controls.
- 2B.** Delivery planning. Possessions booking, scarce resource management, haulage, plant, long lead materials, environmental progress monitoring and controls.
- 3.** Design and construction. Actual delivery and forecasting against plan, appropriate use of progress monitoring and controls, use of overlay processes to improve the quality of forecast plans, active management of risks.

To undertake a route assessment, we investigated and examined at two levels:

Portfolio – Monitoring and management of the renewals portfolio as a whole, across asset types.

Project – Monitoring and management of a sample of renewals projects from the largest asset workbanks.



The actual scope of the investigation (i.e. the balance between a focus at portfolio and at project level) at each route was determined by the assessment team leader to fit the time available and was designed to ensure both levels were addressed across the route assessments.

2.2 Route review context

Our review of the Anglia route was undertaken in August 2019, and led for the route by its Acting Route Finance Director (RFD), Director of Route Asset Management (DRAM), Senior Sponsor and Financial Controller. We assessed a substantial body of evidence provided on the planning, management and delivery of its renewals workbank, primarily focused on years 1 and 2 of Control Period 6 (CP6), with good evidence of detailed knowledge, ownership of and commitment to delivery across Route Access Manager (RAM), finance, sponsor and delivery teams.

The route's £1.3bn baseline renewals plan for CP6, broken down in terms of each key asset workbanks, is summarised in Table 1 below, alongside the route's latest forecast for each. The route's planned volumes for CP6 are at Table 2.

Asset group	Plan (£m RF11)	Latest (£m RF4)	Variance (£m)
Track	425.0	428.3	+3.3
Signalling	381.5	351.0	-30.5
Structures	165.1	162.3	-2.8
Earthworks	55.9	63.3	+7.3
Buildings	78.9	86.5	+7.6
E&P	214.9	216.6	+1.7
Drainage	5.7	6.4	+0.8
Total	1,327.1	1,314.4	-12.7

Table 1: Anglia CP6 route planned renewals spending



Similarly, the route's planned and most recent forecast volumes for CP6 are summarised in Table 2.

Key volume	Unit	CP6 total		
		Plan (RF11)	Latest (RF4)	Variance
Plain line	km	476.8	442.3	-34.5
S&C	No.	465.0	470.0	+5.0
Signalling	SEU	361.6	377.0	+15.5
Embankment	5cl	781	770	-11.0
Underbridges	No.	98	78	-20.0
Underbridges	m ²	20,466	20,727	+261
Wire runs	No.	239.0	242.0	+3.0
Conductor rail	km	-	-	-

Table 2: Anglia CP6 route planned renewals volumes

2.3 Assessment scope

To assess Anglia's preparedness to deliver their renewals workbank in years 1 and 2 of CP6, we sought evidence of both portfolio and project level management and control. However, the balance of our emphasis was on a review of sample projects from the key asset group types, as these made up a large proportion of costs and volumes in these years.

Selecting a sample of projects to review

To assess the preparedness to deliver renewals plans we reviewed the top four workbanks that make up 89% of spend in years 1 and 2 of CP6. The financial status of which, at the time of the review, are as summarised in Table 3.

Asset group	CP6 Year 1 (FY20)			CP6 Year 2 (FY21)		
	Plan (£m RF11)	Forecast (£m RF4)	Variance (£m)	Plan (£m RF11)	Forecast (£m RF4)	Variance (£m)
Track *	73.4	81.3	+7.9	97.7	98.6	+0.9
Signalling *	46.1	39.4	-6.8	84.4	75.9	-8.5
Structures *	22.3	21.8	-0.4	27.0	23.9	-3.1
Earthworks	7.4	10.7	+3.4	20.4	22.1	+1.8
Buildings	4.6	6.6	+2.0	12.0	14.2	+2.2
E&P *	34.1	40.5	+6.5	41.2	37.6	-3.6
Drainage	3.2	2.9	-0.3	0.7	0.7	0
Other	1.7	2.8	+1.1	7.8	12.9	+5.1
Total	192.7	206.0	+13.3	291.2	286.0	-5.2

Table 3: Anglia route renewals cost forecast compared to plan, CP6 years 1-2 totals
* Denotes asset group sampled in the review

The planned and forecast total volumes for these asset groups for year 1 and 2 are set out in Table 4 below.

Asset group	Unit	Year 1			Year 2		
		Plan	Forecast	Variance	Plan	Forecast	Variance
Plain line	km	51.4	31.6	-19.8	135.7	132.1	-3.5
S&C	No.	45.0	47.0	+2.0	131.0	116.0	-15.0
Signalling	SEU	97.0	96.0	-1.0	50.7	48.0	-2.7
Earthworks	5cl	133.0	82.0	-51.0	266.0	199.0	-67.0
Underbridges	m ²	875.5	866.5	-9.0	4,262.5	4,190.1	-72.4
Wire runs	No.	43.0	46.0	+3.0	63.0	56.0	-7.0
Conductor rail	km	-	-	-	-	-	-

Table 4: Anglia route volume summary for CP6 year 1-2

We chose a sample of projects based on: high values and volumes; to give a spread across the two main Delivery Agents: Infrastructure Projects (IP) and Works Delivery; to give a spread across development and delivery in year 1 and 2 and; to provide detailed examples and evidence that complement a wider portfolio-level view across the route's renewals plans.



Our sample incorporated the following projects, and is summarised in Table 5:

Track – The route's major switch & crossing (S&C) project, which is planned to be delivered later in year 1, and the two major High Output renewals campaigns delivered across year 1 and for year 2.

Signalling – The route's three major CP6 re-signalling programmes that are variously in development and delivery in year 1 and year 2, plus the installation of 'Prevent and Predict' (Intelligent Infrastructure) equipment.

Structures – The year 1 delivery programme and the equivalent programme for year 2 structures delivery, comprising a mix of preventative, repair, strengthening and replacement works.

E&P – A major re-wiring project scheduled for delivery in year 1 as well as the CP6-long Overhead Line Equipment (OLE) refurbishment programme.

Project	Asset	Year 1 (£m)	Year 2 (£m)	Stage
19/20 Anglia BCS Bletchley	Track	19.8	-	Delivery
SE-Anglia-SC-Colchester L/E	Track	7.2	-	Delivery
20/21 Anglia TRS Bletchley CP6 Dev	Track	1.6	43.5	Development
Norwich Yarmouth Lowestoft (NYL) Re-signalling	Signalling	10.2	0.5	Delivery
Clacton Re-signalling	Signalling	3.0	20.1	Development
Cambridge Interlocking & Re-signalling	Signalling	1.7	13.7	Development
CAPANG 19/20 SIG PREVENT & PRE	Signalling	2.9	6.2	Development
CP6 structures Year 1 Delivery	Structures	9.3	2.5	Delivery
CP6 structures Year 2	Structures	2.9	8.2	Development
Shenfield – Southend Re-Wire	E&P	20.3	-	Delivery
OLE Mid-Life Refurbishment	E&P	5.9	18.7	Development

Table 5: Summary of sample schemes



2.4 Assessment findings

We assessed a substantial body of evidence provided on the planning, management and delivery of Anglia's renewals workbank, primarily focused on years 1 and 2 of CP6, with good evidence of detailed knowledge, ownership of and commitment to delivery across RAM, finance, sponsor and delivery teams. Our findings are presented using the Renewals Delivery Reference Model structure described earlier and with supporting examples from our review of sample projects.

Model Stage 1 – Workbank planning

Anglia presented an overview of its CP6 workbank that was developed in later years of CP5, and consistent with its Route Strategic Plan. This includes a number of major projects and programmes, the development work for which was already underway before the start of CP6, providing confidence in preparedness, for example its £68m Norwich Yarmouth Lowestoft Re-signalling and the route's High Output track campaigns.

To support its CP6 planning, Anglia developed a cost model, drawing on expertise from PwC, to benchmark its costs prior to the application of efficiency targets. We reviewed summary details of this work, but did not assess or audit the model itself.

The costs and volumes for all projects are defined individually and aggregated by asset type in the route's financial reporting system. The profile of work over CP6 overall, does not indicate an obvious volume of expenditure risk. Year 1 spend is the lowest (and lower than the final year of CP5) as a number of major programmes are in development. The development and delivery costs for major track, signalling and electrification & plant (E&P) programmes is profiled over the five years. The route's peak year for renewals spend is in year 4, which corresponds to delivery of the £140m (Anticipated Final Cost (AFC)) Cambridge Re-signalling scheme.

The route makes explicit use of overplanning provisions per asset group in its renewals planning. This overplan is accounted for via a series of financial 'overlays' that reconcile to the route's annual budgets. Overplanning enables it to proactively manage risk or change across its portfolios within each workbank, for example if projects change, schedules slip, to respond to unplanned (reactive or emergency) works, or to respond to shortfalls across other asset plans by spending more on others.



We heard that Anglia's policy is to remit its asset management teams to develop plans for the full annual workbank, including the overplan, to avoid risk of falling short and so that it has adequate 'shovel ready' schemes as needed in year 1 or as a pipeline for the following year. This works well for smaller or repeatable items, although we saw evidence that it has enabled it to outperform its year 1 planned volumes to date in track.

Within Anglia this overplan is held largely within its track, signalling and E&P workbanks, which correlates well with the route's track High Output and E&P wiring-run projects. The latest position, as at Rolling Forecast (RF) 4 for these overlays is as summarised in Table 6.

Asset group	Net budget (£m RF11)	Forecast with overlay (£m RF11)	Overlay (£m)	Overlay (%)
Track	73.4	89.1	15.6	17.6%
Signalling	46.1	49.8	3.6	7.3%
Structures	22.3	24.6	2.3	9.5%
Earthworks	7.4	9.7	2.3	24.0%
Buildings	4.6	4.4	-0.2	-5.3%
E&P	34.1	41.0	6.9	16.9%
Drainage	3.2	3.2	-	-
Other	1.7	1.7	-	-
Total	192.7	223.3	(30.6)	13.7%

Table 6: Anglia route overplan summary for CP6 year 1

The route operates a Change Control process for its capital renewals portfolio, monitored via a periodic process led by RAMs, Sponsors and the route's Finance team, and supported by detailed templated Change Logs per asset type, covering (for example) formal change to align with Investment Panels as well as changes to levels of overplanning.

We did not find evidence of significant instability and change in the sample projects we reviewed. However, Tables 1, 2, 3 and 4 presented earlier show a number of variances in the latest forecasts at RF4 compared to the route's baseline plan for year 1 and 2, and for CP6 overall established last January at RF11. We discuss these variances in the next section of the report.



Network Rail's national Leading Indicator report has put Anglia's 'workbank stability' at over 80% in year 1 to-date, which demonstrates that there has not been notable change period-on-period in year 1¹. We consider the national Leading Indicator reporting process in our review summary report, including the explanation and interpretation of this indicator.

Model Stage 2A – Authorisation and project development

Authorisation levels are one of the Leading Indicators of the route's preparedness to deliver its renewals plans. We saw a good evidence of governance over authorisations at project and at asset group level to demonstrate good focus on delivery to cost and volumes in discussion with RAMs and sponsors. The route's governance and management system assurance arrangements include:

- Monthly Business Review (MBR) meetings at DRAM, SRAM and Route Director level, with MBR packs for major schemes.
- Periodic Business Review (PBR) meetings between DRAM and RAMs; a Director review covering progress, works forecasts, access, risks and opportunities, overlays, new works, change and slippage; supported by route finance data on these.
- Routine renewals planning and progress meetings between RAMs and Delivery Agents in each asset group and for major schemes with bespoke governance arrangements.
- Investment Panel submissions. We reviewed a number of these for key sample projects.
- GRIP Stage Gates.
- Established processes for financial reporting and tracking delivery to budget per reporting period, including FPM and Rolling Forecasts and deep-dive review of costs.

The route is planning to strengthen 'asset focused' and refresh the detail contained within its control or 'visualisation' room that is used to host weekly progress meetings for the DRAM and RAMs.

The route tracks its authorisation levels at asset level and in aggregate. It was 95% authorised overall for year 1 works at Period 4, with the remainder being smaller Works Delivery track projects. We note that the national Leading Indicator report is at 100% because of the way that overplanning is included in it.

¹ This indicator includes a central assumption of 20% overplanning in input data, hence is indicative where 100% is not necessarily the maximum or 'target'.



Anglia has also authorised approximately 16% of works for year 2 at Period 5. Network Rail's central Leading Indicator data also tracks this and confirmed steady progress in its recent reporting periods. The route's track authority level for year 2 is relatively low compared to other asset groups, however, is planned to improve this at Investment Panel later in autumn 2019. This is indicative of a clear authorisation strategy by the route, whereby remit and development work mature on annual cycles, leading to waves of planned authorities in Periods 8 to 11.

Anglia route does not routinely monitor the issue, acceptance and approval of instructions and remits for development and delivery work between the route Sponsors and RAMs and their Delivery Agents. The route reported that it is planning to compile and roll a complete data set for this later in year 1.

The route operates a change control process to manage adjustments and inform re-authority processes, with examples of this provided as evidence as well as a rolled-up summary. Tables 1, 2, 3 and 4 presented earlier show a number of variances and changes to workbanks. We investigated these variances generally and also in more detail in our sample projects.

Below is a summary of some of the variance explanations provided by the route:

Signalling – The £6.8m cost variance in year 1 in Table 3 is due to an asset misallocation for the Norwich, Yarmouth, Lowestoft Re-signalling (NYL) scheme at RF11 which was identified and corrected at RF4, hence the track vs. signalling adjustments that largely net off. The £8.5m forecast variance in year 2 is an overlay adjustment, reflecting deliverability on what is a peak period of signalling spend.

E&P – The £6.5m forecast cost variance for year 1 in Table 3 is largely due to overspend on projects within this asset group. For example a UPS project growing in complexity and stakeholder pressure affecting access requirements. Additionally some acceleration of the OLE delivery campaign that is re-profiled between years 1 and 2.

Track – The volume variance for CP6 overall in Table 2 reflects the result of ongoing reviews of the workbank whereby the route is forecasting that some locations for High Output medium refurbishment works may no longer be needed. The volume variance in Table 4² for Plain Line renewals reflects a risk overlay that it applied to the volume forecast at RF4. The route is still remitting, developing and planning to deliver the full 51.4km of plain line works.

² We did not assess the earthworks, but note that the variance reflects that the RAM front-loaded the workbank in the knowledge that works early in CP6 are liable to slip.



Structures – The volume variance in Table 2 reflects a shift from maintain or preventative works to renewal and refurbishment as plans have developed. The route's view is that this will derive better whole life cost but as costs are higher, it will deliver fewer structures overall in CP6.

We reviewed Anglia's progress with project development work in our review of sample projects:

Within the signalling workbank, three major schemes make up large proportion of years 1 and 2 expenditure and CP6 spend overall. The NYL scheme was deferred from CP5, so benefits from good development maturity and corresponding route confidence in delivery in year 1. Clacton Re-signalling is planned for delivery in year 2.

The Cambridge Interlocking and Re-signalling scheme has been developed as two projects but is now in the process of being brought together at GRIP stage 3 to become a single programme, to exploit opportunities and efficiencies through development and design stages in years 1 to 3 of CP6. Anglia has also established a 'Project Board' to strengthen oversight of this scheme. The scheme is planned for delivery in 2022 and 2023, which means that the project is starting to develop detailed access plans that it needs beyond the current industry planning horizon of two years, which could represent a notable future risk if access is not booked.

Within track, we saw that Anglia route is fully invested in High Output delivery, with its plans (and calls on specialist plant) confirmed within Network Rail's route-wide programme for CP6. The route is therefore confident in its plans, having been developing these proactively since late CP5.

For E&P development work, we reviewed the £109m OLE Mark 1 Mid-life refurbishment programme (50% of total CP6 E&P budgets) with delivery undertaken throughout the Control Period. The scheme is currently at GRIP stage 3 with an Investment Panel planned for October 2019 to authorise delivery through GRIP stages 4 to 8. Access via a programme of 27 hour and 52 hour weekend possessions is fully planned out for years 1 to 3; this is confirmed for year 1, and in the process of being secured for year 2 via the normal industry process (EAS through to December 2020). The route team leading this programme has confidence in delivery and its production-line delivery approach, focusing now on early planning, design and survey work. We saw evidence to support this in terms of plans and productivity to date, so Anglia's High Output capability appears to be good practice to acknowledge within our overall report findings.



Model Stage 2B – Delivery planning

We looked for evidence and assurance on delivery planning and any instances of unmitigated dependency or risk in relation to (for example) disruptive access, scarce resources, specialist plant, haulage, materials, land access and interdependencies with enhancement schemes.

As noted above, Anglia's High Output plans are underpinned by confirmed booking of Network Rail's specialist factory trains. The route demonstrated a good understanding and focus on the associated complex logistics, resourcing, pathing, plant, access and stabling arrangements. Team continuity is beneficial as this is not new and is well rehearsed activity. Delivery planning for year 2 works is being advanced, with surveys underway, materials ordered and rail drops already underway. This reflects good route-learning from issues it encountered in CP5, with greater focus on enabling works to de-risk delivery.

We saw good evidence of robust access planning across all sample projects, notably for track, signalling and E&P works, with disruptive possessions secured for year 1, and the formal industry process underway to secure its plans for year 2. This included several key signalling blockades, notably for NYL (January 2020) and Clacton Re-signalling (February 2021).

The £29m Clacton Re-signalling is undertaking delivery planning as part of GRIP stage 5. The RAM team, and the project documentation provided as evidence, flagged a number of risks in relation to access, delivery schedule, land and power supply requirements, and knock-on commercial issues. The project team were focused on managing these risks via engineering, client, commercial assessments underway; although it appears that residual risks to year 2 delivery may remain even after mitigation.

We saw several examples of a mature and stable supply chain in place and continuity of route delivery and specialist resources that help improve confidence in the route's delivery plans. There will be a change of contractor for structures in year 2, though this is proactively planned to de-risk transition, learning from past experience. The route has formed an in-house E&P team to fulfil the role of delivery client and to plan its 'production-line' throughout CP6.

The route flagged its ongoing work to manage access risks. For example, as part of national-level planning and prioritisation, notably for the key December 2020 possession and resource 'window', the need for the route to maintain a freight diversionary route to the port of Felixstowe then, and in securing a major blockade at Bishops Stortford at the end of year 2.

In terms of enhancement interfaces, the route is continuing to manage access risks that results from the Crossrail programme, including both Crossrail Ltd works (and fleet testing) and Network Rail 'On Network Works'. While not a new risk, there may be a residual risk that change or slippage to these enhancement plans could impact on Anglia's year 2 access plans for committed renewals works.



Model Stage 3 – Design and construction

We reviewed the route's documentation on design progress, although did not assess design or design quality within this review. We saw evidence of work undertaken via GRIP in the signalling workbank (for example, Cambridge and Clacton Re-signalling schemes), the year 1 and 2 structures portfolios and OLE Mark 1 refurbishment programme.

The route has continuity in its supply chains and frameworks to underpin procurement, with only minor changes since CP5. This includes new framework contracts for CP6.

We looked for evidence of variances in actual costs incurred by RF4 compared with planned expenditure in the RF11 baseline (January 2019) and also variances in the full year 1 forecast, as summarised in Table 7.

Asset group	Year 1 to date (P04)			Year 1 forecast total		
	Plan (£m RF11)	Actual (£m RF4)	Variance (£m)	Plan (£m RF11)	Actual (£m RF4)	Variance (£m)
Track	22.6	24.6	+2.0	73.4	81.3	+7.9
Signalling	11.3	7.5	-3.8	46.1	39.4	-6.8
Structures	6.5	8.0	+1.5	22.3	21.8	-0.4
Earthworks	1.6	1.1	-0.5	7.4	10.7	+3.4
Buildings	0.9	0.6	-0.3	4.6	6.6	+2.0
E&P	12.1	12.6	+0.6	34.1	40.5	+6.5
Drainage	0.8	1.1	+0.3	3.2	2.9	-0.3
Other	0.4	1.4	+1.0	1.7	2.8	+1.1
Total	56.2	57.0	+0.8	192.7	206.0	+13.3

Table 7: Anglia route cost performance CP6 year 1



Anglia route's overall position in terms of volumes in delivering its CP6 workbank in year 1 is summarised in Table 8. This compares progress to its approved 'RF11' baseline plan with its progress as at Period 5.

Asset group	Unit	Year 1		
		Plan at RF11	Actual at P5	Variance
Plain line	km	11.7	13.2	+1.5
S&C	No.	19.0	3.0	-16.0
Signalling	SEU	-	-	-
Embankment	5cl	-	-	-
Underbridges	m2	0	175.0	+175.0
Wire runs	No.	25.0	33.0	+8.0
Conductor rail	km	-	-	-

Table 8: Anglia route volumes delivered to date in CP6 year 1, as at Period 5.

We reviewed progress to date in year 1 with the route teams and also questioned the variances shown in Table 8:

Track Plain Line – High Output delivery is progressing as planned in year 1, with all planned volumes delivered to date, and works on site shared by the route team. Its major year 1 ballast cleaning campaign was ready and about to start when we concluded our review, concurrent with preparations for the major year 2 track replacement campaign. We also saw detailed project and construction phasing plans for its Colchester switch & crossing (S&C) project that is scheduled for delivery later in year 1, plus completion of cost challenge activity to drive timing of its authority submission.

Track S&C – A notable variance on volumes delivered against plan is flagged in Table 8. This is for S&C refurbishment volumes in the throat of Liverpool Street Station. The route has re-profiled its delivery plan in RF4 to deliver later in year 1, as it reported that its original plan was considered too ambitious given the access challenges involved.



Signalling – The NYL scheme was deferred from CP5 given a dependency then on prior deployment of a new system³ so, as a consequence, the project benefits from good design maturity and corresponding route confidence in delivery, notably in providing time to address scheme-specific risks. The project is already in construction, with enabling and system testing now underway to progress and de-risk plans ahead of a commissioning blockade planned at the end of year 1.

Structures – The route has over-delivered compared to plan to date. Evidence on the year 1 investment programme for delivery of 11 underbridges (100% of planned key volumes) confirmed that as at Period 4, two structures have been completed, two are under construction and will complete shortly, four are in design and three are at development 'options' stage. Delivery is profiled over year 1, with two planned to be fully completed very early in year 2. The route maintains a good dashboard for monitoring progress on this programme, and its eleven structures in the year 2 plan (of which two are being competitively tendered to test competition and value for money).

E&P – Performance data confirmed completion of wiring runs planned for delivery, and progress had exceeded this at the time of our review.

Leading Indicators

We reviewed the status of Anglia route in relation to Network Rail's Leading Indicator Report that provides measures of its preparedness for renewals delivery. No issues were identified, noting as headlines:

- Year 1 financial authority is ahead of plan at 95%.
- Disruptive access is fully booked for year 1, noting that the indicator for this captures all requirements including maintenance and enhancements, not just renewals.
- Workbank stability fell slightly during the re-forecast and re-allocation process between asset workbanks undertaken as part of RF4, but remains high, as changes are balancing out across the portfolio.
- The route confirmed that its 'glidepath' or target for authority in year 1 had been based on its gross workbank delivery plans including overplanning. This has the effect of under-stating its progress relative to its plan. It is in the process of building a bottom-up data set, including data and dates for Panel submissions to drive future year glidepaths.

³ New Electrologics interlocking; strategically important to broaden and de-risk the supply chain, with prior deployment via the Feltham Re-signalling (Wessex) scheme.



2.5 Conclusions and recommendations

In this section we set out our key conclusions and related recommendations for the Anglia route. It is important to note, however, that these will also be considered in overall terms across phase 2 of this review, to ensure that these are aligned, as far as is appropriate, across all of the routes and regions.

Anglia route conclusions

Preparedness to deliver in years 1 and 2 of CP6

Anglia route has demonstrated good evidence of its plans and preparedness to deliver its renewals in year 1 of CP6. It provided a comprehensive body of evidence on its workbank development (including modelling work to underpin its plans and costs for CP6), on the up-to-date status of development and delivery of these plans, and specifically in its major projects in its largest track, signalling, E&P and structures workbanks.

The route is currently forecasting that it is on target to deliver its renewals costs and outputs (volumes) for year 1. It is currently ahead of plan in track and behind plan in S&C with slippage to later delivery in year 1.

It is also progressing plans for year 2, with development work and authorisation to continue throughout year 1. We identified a number of risks to delivery in year 2 during our review of sample projects of signalling projects which will need to be proactively managed. Assurance of the plans for year 2 would be improved with improvements in the tracking of progress on remits for Delivery Agents.

We found good evidence of the management systems being operated that provide confidence that the route is prepared to deliver its year 1 and 2 renewals targets. This includes evidence of cost and delivery focus across leadership, RAM, finance, sponsor and delivery teams.

Overlay adjustments

Overplanning is important and an effective part of the route management system, used to ensure resilience and mitigate risk of some projects being delayed or other changes. There are a series of financial 'overlays' used to manage and monitor overplanning, emerging work and to reconcile costs to agreed budgets. No significant issues were identified in relation to this process within Anglia. Given the scale and dynamic nature of the renewals portfolio, this process needs careful active management and a professional assessment of progress, potential optimism, risk and change every reporting period.



Remits for delivery

The issue of remits by the route and the acceptance of these by its Delivery Agents is an important part of workbank planning and project development. Data on remit status provides a useful metric to indicate progress in securing approvals for renewals delivery, this is not part of the current Leading Indicator set. Anglia does not track this routinely, as it does not have a complete dataset and process in place, but reported that it is planning to develop this.

Workbank change

Change to baseline plans (in terms of cost and volumes) is inevitable on what is a very large renewals investment programmes, valued at £1.3bn in CP6, and almost £0.5bn in years 1 and 2 alone. We did not see evidence of major aggregate level changes in Anglia's route renewals plans in year 1 to date that would indicate a threat to delivery of its overall commitments. We did, however, find instances of changes at an individual asset level, comprising planned change as well as unplanned slippage. If the level of change grows then this could import risk to delivery of plans and efficiencies.

Delivery variances

Overall renewals delivery progress by Period 4 is broadly in line with baseline plans for year 1, although there are variances in terms of costs tracking below forecasts that on their own would give cause for concern. These are well understood and explained by the route and also offset by positive variances in other asset groups.

Risks to delivery

There is evidence of a strong risk management focus within the Anglia route, including within the various management teams we met during our review of the sample projects. We note that the route is leading several complex and challenging programmes and projects in years 1 and 2 of CP6. There are a number of risks that potentially fall outside the tolerance that the management system and plans (overplanning and overlays) could cope with; so evidence of progress and preparedness when viewed mid-way through year 1 does not provide a guarantee delivery of costs and volumes for all of year 1.

These risks may include:

- Unforeseen cross-route access impacts. For example, national prioritisation of access in late year 2.
- Unplanned impact from a major enhancement scheme. Notably Crossrail infrastructure and testing works, which the route flagged as an interface that could create problems in year 2 if current Crossrail plans slip or change.



- Loss or reduction of major blockade access, causing work to be deferred. The route is leading several complex signalling projects, with NYL planned to be commissioned in January 2020 and Clacton Re-signalling in February 2021, both with attendant delivery risks.
- Potential resource impacts. For example, scarce resource impacts and planned devolution of IP Track into the regions in year 1, noting that the route did not flag a risk in this regard.
- External market factors. For example, the failure of British Steel on the provision of materials for the route's major track renewals campaigns in years 1 and 2.
- Major asset failure. High impact low probability events, for example, due to exceptional weather events.

Leading Indicators

Good progress has been made by Network Rail on establishing the Leading Indicator process to provide confidence in year 1 and 2 workbank plans, including data provided by the Anglia route. We concluded in phase 1 of our review that there remain some generic issues to resolve with this process and data, which the Network Rail centre team are aware of and are considering.

To supplement the Leading Indicators, we have identified other potential metrics that routes could maintain to provide a more complete picture and assurance of progress:

1. Quantity of change to workbanks confirmed via route change control, which could supersede the workbank stability Leading Indicator, with a limited number of standardised categories of change to differentiate reasons of change, for example positive change to deliver efficiencies as distinct from unplanned slippage.
2. Tracking the level of financial overlays within the financial year. This would provide visibility of this aspect of financial reporting and assurance that they are reducing in line with plans as forecasts are replaced by confirmed plans and costs.
3. Measure or metric for the variance between forecast and actual delivery per asset group, in terms of volume and expenditure; hence a 'lag' indicator to provide assurance of delivery within each year and highlight areas for improvements.



Anglia route recommendations

The following recommendations are made for the route, combining:

- Recommendations presented in the Draft Report, based on the route-specific conclusions discussed above.
- Recommendations arising from a cross-route consistency check, which we believe are also applicable to this route.

Preparedness to deliver in year 1

At the time of the review (Period 4), overall renewals delivery progress to date and full year forecasts for year 1 are reported as being broadly in line with baseline plans. Our findings and conclusions, discussed above, indicate a number of areas of risk to delivery in year 1 and we make the following recommendations:

Recommendation R1 – That the route heightens monitoring and assurance of delivery plans for asset groups that report a variance in terms of financial or volume performance compared to forecasts outputs. Should variances only emerge later in year 1, they may not be resolvable before year end.

Recommendation R2 – That the route monitors the consistency and transparency of overlay adjustments, to mitigate potential optimism and risk of changes emerging that could be hard to mitigate at late in year 1, and in subsequent years.

Recommendation R3 – That the route closely monitors, and informs ORR by exception, on the following strategic threats that are likely to be outside the tolerance of risks they can mitigate and therefore would impact on achievement of year 1 targeted levels of renewals:

- Supply chain issues given the uncertain economic situation
- Impact of the completion of the IP transition into the routes, specifically IP Track
- Loss or reduction in major blockade access

Preparedness to deliver in year 2

Recommendation R4 – That the route collates and monitors progress against remit delivery, noting that it is considering this and can incorporate tracking data for this within its plans to augment its renewals control room suite. To note though that we have recommended Network Rail centre provides guidance to enhance consistency of remit tracking across the routes.



Recommendation R5 – That the route closely monitors, and informs ORR by exception, on the following strategic threats that are likely to be outside the tolerance of risks they can mitigate and therefore would impact on achievement of year 2 targeted levels of renewals:

- Continuation of supply chain issues given the uncertain economic situation.
- Loss or reduction in major blockade access, noting the importance of this to year 2 plans.
- Impact of changes arising from development and construction activity on enhancement projects, notably due to ongoing works required for the Crossrail programme.

Leading and route progress indicators

We have recommended to Network Rail centre further enhancements to the Leading Indicators in our overall phase 2 review summary.

Based on the findings and conclusions discussed above, we recommend that the route considers developing more progress indicators for their own use in the following areas:

1. Quantity of change to workbanks confirmed via route change control, which could supersede the workbank stability Leading Indicator, supported by a limited number of categories of change to differentiate reasons for these. For example, positive change to deliver efficiencies as distinct from unplanned slippage.

Recommendation R6 – That the route implements a measure or metric for reporting the quantity of changes to plans at asset level, supported by an analysis of the causes and categories of change and the risks to and mitigation of impacts on renewals targets. The lessons from these changes should also be embedded in future workbank plans to reduce the volume of future change.

2. Tracking the level of financial overlays within the financial year. This would provide visibility of this aspect of financial reporting and assurance that they are reducing in line with plans as forecasts are replaced by confirmed plans and costs.
3. Measure or metric for the variance between forecast and actual delivery per asset group, in terms of volume and expenditure; hence a 'lag' indicator to provide assurance of delivery within each year and highlight areas for improvements.

Recommendation R7 – With the appointment of a Regional Capital Programme Director, the opportunity is taken to review and improve the quality and consistency of management data across all Delivery Agents. Work to do this should be coordinated with the other recommendations in this report.



3. Efficiencies delivery assessment

3.1 Efficiencies preparedness assessment approach

Introduction

In March 2019, ORR confirmed its assessment that Network Rail was better prepared to deliver efficiency improvements in CP6 than it was at the start of CP5. Our Independent Reporter mandate was commissioned to further assess preparations and progress being made to deliver these plans at route level.

The mandate for the Reporter set out a high-level scope:

“The reporter should assess the preparedness of the route to deliver efficiency savings in the first two years of CP6. This should consider whether the routes have credible efficiency plans both in terms of the estimates of savings that will be achieved and plans for delivery.”

To assess the preparedness of a route to deliver efficiency savings, the Reporter took a similar approach to the renewals assessment, and examined the reasonableness of the route's management system of planning, monitoring and controls of efficiency delivery. We interpreted reasonableness as meaning proportionate to the challenges and risks associated with efficiency delivery. We found in review phase 1 that efficiencies varied in terms of the scale of challenges and risks, therefore we concluded that a 'one size fits all' approach to an efficiency delivery management system should not be the expectation.

For simplicity, we sought to characterise efficiencies into a small number of categories to reflect different points on a scale of size of challenges and risks to delivery. We did this so that we could define our expectations of what is reasonable for each of the categories. i.e. the further up the scale then our expectations of the efficiencies management system being higher.



Efficiency delivery landscape

To explain this further, it is necessary to describe the landscape surrounding delivery of efficiency plans and some of the inherent challenges and risks.

As part of the Strategic Business Planning (SBP) process for CP6, each Network Rail route committed to efficiency savings. Network Rail centre provided a 'fishbone' framework of categories to provide consistency in the articulation of efficiency initiatives. The routes were responsible for forecasting cost savings from each initiative which were either derived as:

1. A 'top-down' estimate. Largely based on asset manager expert engineering adjustment to pre-efficient costs, which were the subject of financial analysis of workbanks, in some cases supported by external expertise and modelling. The estimates may also have been subject to discussion and agreement with the relevant Delivery Agent (IP or Works Delivery).
2. A 'plan-based' estimate. Derived from an early understanding of a delivery and change approach which may be supported by an outline plan and assumptions'.

'Top Down' estimates in the SBP efficiencies plan were therefore effectively 'initiative targets' to be developed subsequently with implementation plans. The initiative targets were then aggregated and apportioned as post-efficient cost targets:

- For capex, to asset groups, initiatives and then deliverer agents based on the amount of work (and work type) they planned for CP6. Delivery Agents subsequently and continue to assign post-efficient cost targets to projects.
- For operational expenditure (opex), where this estimating approach has been used the targets were allocated across departments or units in the organisation structure, which are then effectively the projects that will deliver the efficiencies.

The consequence of the top-down process is that responsibility for efficiency delivery planning moves to 'project level' and, with a very large number of projects to deliver at route level, it is inevitable that this brings additional challenges:

- Each project has to plan for how it will deliver its allocated post efficient savings target. That may require the project to implement multiple different efficiency initiatives, each requiring its own implementation plan, i.e. the number of implementation plans required to deliver the original SBP 'initiative target' has multiplied.



- In contrast to other efficiency initiatives where responsibility stays at a programme/deliverer/delivery unit level that will require one implementation plan to deliver one initiative.
- Efficiencies forecasts are developed at project level on an emergent basis as projects are developed.
- Ongoing reconciliation of project level emergent efficiency forecasts is required with the original 'top down' targets and fishbone categories, in order to reconcile against the Efficiency Tracker and provide assurance that efficiencies will be realised.

The risks to delivering the efficiencies plan are also greater due to:

- The responsibility for delivery of efficiencies has effectively been delegated and distributed across the routes Delivery Agents (IP or Works Delivery) and their project managers, i.e. it is now dependent on more people to achieve.
- A Project Manager could now be responsible for embedding several efficiency initiatives to achieve their overall target cost savings, i.e. their understanding and competence required has now also increased.
- The level of complexity of embedding an initiative into a project varies:
 - **'Simple'** – The efficiency initiative has already been enabled by others and there is minimal activity or change required to implement it in a project.
 - **'Not simple'** – The efficiency is still to be enabled by the team or others and requires explicit activity or change by the project to implement it. For example 'challenge standards', 'change scope' is up to the Project Manager to deliver and enable.
- The efficiency forecasts emergent from developing project efficiency delivery plans may not aggregate up to achieve the overall efficiency targets.

Efficiency categories

Building on an understanding of the challenges and risks set out above, and for the purpose of setting out our expectations of a proportionate Efficiencies Management System, we have defined the following categories of initiatives:

- (A)** – Capex, minimal (or completed) enabling activity. For example, Contract Rate Reductions.
- (B)** – Capex, requires considerable enabling activity to implement in a project. For example, Possession Utilisation efficiencies.



(C) – Opex, minimal enabling and implementation activity. For example, Route Services Supply Chain Operations (SCO) Rate Card efficiencies – Haulage.

(D) – Opex, requires considerable implementation effort. For example, Organisation Restructure.

Efficiency Management System expectations

We see routes' Efficiency Management Systems as comprising attributes at three levels:

- 'Project level'. A project is the means by which efficiencies are realised. For example, savings achieved by an individual Oracle Project.
- 'Initiative level'. Where changes necessary to realise efficiencies are designed, developed and change enabling outputs (enablers) are delivered. Projects use enablers to make their changes to realise efficiencies. For example, where an efficiency initiative can be applied to multiple projects such as Optimisation of Access.
- 'Portfolio level'. Where overview, coordination and assurance of multiple projects and initiatives happens.

Our expectation is that the level of planning and management at 'project level' and 'initiative level' is proportionate to the size of the challenge and risk associated with delivering efficiency targets. We defined efficiency Categories A to D above to reflect varying levels of challenge and risk associated with different initiatives. In Table 9 we have defined our expectations of planning and management features at both a 'project level' and 'initiative level' for each of the four Categories A to D. Routes overall efficiency plans will comprise all four categories and therefore we have also defined our expectations of features at 'portfolio level' as common to all four categories. If an initiative is comprised of sub-initiatives, then the category can be applied at the lower level. When we are examining our samples of different efficiencies at a route we will seek evidence of these features and that they are being used appropriately.

Efficiency Management System feature	Capex		Opex	
Category degree of enabling and implementation complexity	(A) Low	(B) High	(C) Low	(D) High
Project level:				
1. Efficiencies delivery plan (note 1)				YES
2. Efficiencies forecast documentation (note 2)	YES	YES	YES	YES
3. Post implementation review of actual efficiencies achieved (benefits realisation)	YES	YES	YES	YES
4. Change management plans (note 5)		YES		YES
Renewals Initiative level:				
5. Initiative delivery plans (note 3)				
6. Initiative forecast plans (note 4)	YES	YES		
7. Initiative change management plans (note 5)		YES		
Portfolio level: (asset group, Delivery Agent, route)				
8. Validation of emergent efficiencies with forecast targets (traceable to fishbone tracker line items)				YES
9. Assurance function to assess project / initiative efficiency level delivery	YES	YES	YES	YES
10. Portfolio Management / Change Management support (note 6)	YES	YES	YES	YES

Table 9: Proportionate planning and management of efficiency delivery by initiative category



Notes on the Table:

1. Efficiency delivery plan for each project, for every initiative should include (as a minimum):
 - Description of efficiency initiative (granular level of business change) and rationale
 - Description of how it will generate efficiency
 - Action plan and implementation plan with milestones and dates for enabling efficiencies
 - Identified risks with corresponding mitigations
2. Efficiency forecast documentation for each project. We would expect to contain forecast calculation with underpinning detail, record of assumptions, rationale and time phasing.
3. Efficiency enabler delivery plan. We would expect to see resources assigned, and should include (as a minimum):
 - Description of efficiency initiative (granular level of business change) and rationale
 - Description of how it will generate efficiency
 - Action plan and implementation plan with milestones and dates for enabling efficiencies
 - Identified risks with corresponding mitigations
4. Initiative forecast plan. We would expect to contain forecast calculation with underpinning detail, assumptions, rationale and time phasing.
5. Feature 7 is required to ensure that all the change management enablers are being delivered at the 'initiative level'. These enablers will be used at project level to underpin their change management plans, Feature 4. Where required, change plans should be supported with adequate resources to assist implementation.
6. Change management support for the project level to implement common changes across their portfolio, including owning and disseminating good practice, organising training and knowledge sharing.



3.2 Route review context

To assess the preparedness of the route to deliver efficiency savings in the first two years of CP6, the review considered the routes' latest opex and renewal (capex) efficiency plans. We reviewed the overall quality of these plans, whether the efficiency forecasts appear reasonable based on those plans, and whether they are consistent with the routes' agreed allocation within the £3.1bn total of efficiencies within the ORR's final determination for CP6.

Our review of the Anglia route was undertaken in August 2019. It was led for the route by its Route Financial Director (RFD), DRAM, Principal Sponsor and Financial Controller and evidenced through meetings and documentation from RAMs (for capex efficiencies) and initiative owners (for opex efficiencies). For key reference forecast data, we reviewed the route's Period 4 2019/20 (RF4) efficiency forecast relative to the RF11 baseline efficiencies agreed as a result of the final determination.

3.3 Assessment scope

Our review focused on 'material efficiencies' as per the mandate and for consistency of our approach across all routes we adopted the sampling principles of selecting the:

- Top three capex efficiencies by value for years 1 and 2, plus assessing relevant efficiencies identified from our review of renewals described earlier.
- Top three opex efficiencies by value for years 1 and 2.
- Intelligent Infrastructure and Supply Chain Organisation (SCO) efficiencies, where they were included in the route's plan for year 1 or 2. This is to gain a view of how these central initiatives were being managed from within the route.

We also assessed additional efficiency examples provided by the routes for signalling, Plain Line Pattern Recognition (PLPR), and Optimisation of Access.

Table 10 shows our review sample with the efficiency forecasts as at RF4 in year 1 of CP6.

Category	Type	Initiative	Asset	Efficiency (£m)						% of
A	Capex	Advance workbank remitting, reduction in HO system 6 to 4	Track	5.3	6.8	6.2	6.4	6.5	31.3	12%
B	Capex	Signalling tech innovation, descope recoveries	Signalling	1.6	3.2	2.8	3.4	4.2	15.2	5%
B	Capex	Optimisation of access (use, agreement, planning)	E&FP	2.3	2.3	3.3	3.4	2.8	14.2	4%
B	Capex	Modular assets and emphasis of 'plug and play'	Signalling	1.4	2.9	2.5	3.1	3.9	13.9	4%
A	Capex	Improved contracting strategies	Signalling	1.2	2.5	2.1	2.6	3.2	11.6	3%
B	Capex	Continuous improvement	Signalling	1.0	2.0	1.7	2.0	2.6	9.2	3%
D	Opex	ME (CP5) - PLPR	Maintenance	0.6	0.8	1.2	1.1	1.1	4.7	10%
D	Opex	LEAN (Right First Time delivery, B.E.D, SCI)	Maintenance	1.6	0.6	0.8	1.0	1.1	5.2	16%
D	Opex	Optimisation of access (use, agreement, planning)	Maintenance	0.0	1.1	1.1	2.3	2.4	6.9	8%
C	Opex	SCO Initiatives	Maintenance	1.7	1.1	1.3	1.7	2.1	7.9	20%
D	Opex	NYL and Clacton Re-signalling Projects	Operations	0.0	2.6	2.7	2.8	2.9	11.0	18%
D	Opex	CP6 II - Intelligent Infrastructure	Maintenance	0.3	0.5	3.4	3.7	3.9	11.8	6%

Table 10: Anglia route CP6 P04 efficiency sample

* The total efficiencies for years 1 and 2, including Activity Scope / Efficiency, for capex is £105m and for opex is £14m



3.4 Assessment findings

We have set out our findings using the structure from the mandate:

- a. Quality of the description of business change and how it will generate efficiency
- b. Calculation of the forecast efficiency
- c. Arrangements for monitoring progress in implementing business changes
- d. Approach to risk identification and management
- e. Identification and documentation of limitations in forecasting and lessons learnt in efficiency plans

a. Quality of the description of business change and how it will generate efficiency

In assessing the quality of business change descriptions, we took into consideration the proportionality principle recognising that some initiatives rely on business change to realise efficiencies and others do not. For example, a new contract framework (Category A) has minimal reliance on business change compared with implementing new maintenance technology and associated work practices (Category D). However, our review still sought evidence of documentation for all initiatives as to how each will generate efficiencies and what actions are required to enable and release efficiency benefits.

In our selected sample of efficiencies for this route there were four Category B and five Category D initiatives which require, or potentially require, business change and therefore need descriptions of that business change and how it will generate efficiency. For other initiatives within our sample that do not rely on business change (Category A or C), we looked at the quality of the project level Efficiencies Delivery Plans ('what activity' and 'how it will generate efficiency').

We have considered evidence in terms of the capex and opex efficiencies that we assessed within the Anglia route.

Capex efficiencies:

The quality and level of detail of the description of capex business changes and how they will generate efficiency is not comprehensive. Our expectation was that this evidence would comprise a proportionate level of detail, with more information for large value, complex or longer-term Category B initiatives, versus lesser information for smaller and simpler Category A initiatives or those with well-defined enabling activity to secure efficiency benefits. While evidence indicated that the rationale for capex efficiency initiatives was well founded, we did not find sufficient granular information for the larger, complex



(typically capex) efficiencies, detailing for example the 'what' and 'how' of each in granular terms, with proportionate plans to support each initiative.

The route has utilised Efficiency Plans on a Page (EPOP) and Project Efficiency Forms to document their bottom-up efficiency plans for three projects, which are targeted to deliver efficiencies in year 1 and 2 of CP6, and are forecast to deliver over £100m total capex efficiencies across CP6⁴. These projects are the Cambridge Re-signalling project which will deliver efficiencies in years 2 to 5 of CP6, the Clacton Re-signalling project which will deliver efficiencies in years 1 and 2, and the OLE Mid-Life Refurbishment project which will deliver efficiencies in years 1 to 5.

The quality of the plans and how they will generate efficiencies are very high-level and lack detail proportionate to the scale of efficiency anticipated. For example:

Cambridge Inner project EPOP. This project is at GRIP stage 3 and includes a breakdown of 60 different Category A and Category B efficiency initiatives spanning all fishbone categories, which aim to deliver £47m of efficiencies towards a stated efficiency target of £52m. This target represents over 40% of the assumed pre-efficient cost. The initiatives contain limited information on what activity will be undertaken and how the efficiencies targeted will be realised to give confidence that they are developed, realistic and deliverable. Examples of this include:

- A Category A/B £4.5m efficiency initiative for 'production of a clear and robust scope for ITT, to minimise post contract change', described as 'the application of Value Engineering and production of a robust CRT to ensure value for money', delivered by undertaking 'Value management and engineering workshop at GRIP 3, 4 and 5'.
- A Category A/B £6.2m efficiency initiative for 'Contracting Strategy across GRIP stages', described as 'Ensuring consistent use of contractors between GRIP stages (especially GRIP 4; 5 and 6); this may be effected by the procurement of the new major framework', delivered by 'Set up procurement workshop to discuss' and generated by reducing rework and thus saving prelims.

Clacton Re-signalling EPOP. This project is at GRIP stage 5 and includes a breakdown of over 30 different Category A and Category B efficiency initiatives spanning all fishbone categories, which aim to deliver £23m efficiencies towards a stated efficiency target of £17m. This target represents over 40% of the assumed pre-efficient cost. Similarly, these contain high level information on what activity will be undertaken and how the efficiencies targeted will be realised. Examples of this include:

⁴ The fishbone categories within the EPOPs and the Project Efficiency Form are not mapped back to the Efficiency Tracker and therefore may not align fully with the sample, and are not profiled per year to give visibility of the capex efficiency totals for years 1 and 2.



- A Category B £7.5m efficiency initiative for 'Challenge Standards', described as 'There is an opportunity to challenge some standards', delivered by requesting 'RAM support for derogations that lead to significant cost reductions without affecting safety and/or performance, i.e. non-compliant platform standard leading to platform extensions and S&C shifts towards London'.
- A Category B £1.5m efficiency initiative for 'The early engagement of all RAMs to secure their buy in for the agreed scope of work', described as 'Obtain signed DRRD from all affected discipline RAMs and Ops to avoid late change'.

It is noted that this EPOP was developed in summer 2019 when the project was already at GRIP stage 4, so it is possible (but not clear) that this plan may be articulating activity that may or may not have been undertaken, although there is no evidence of this or of the activity and efficiency values involved.

OLE Mid-Life Refurbishment Project Efficiency Form. This contains 20 different Category A and B efficiency initiatives which span across multiple fishbone categories. The form was then in the early stages of development and did not have associated forecasts for the initiatives, but had a started target of £37m during CP6. Again the detail regarding business change and how it will generate efficiencies is very limited. For example:

- An unpriced Category B initiative for 'Access and Advanced Materials' is described as 'early definition of the project access strategy to enable disruptive access to be secured as early as possible and at the lowest possible cost', delivered by identifying 'sequence of works and align design programme to suit the delivery strategy'. It is noted that this efficiency is due to be delivered by October 2019.
- An unpriced Category B initiative for 'Workbank stability and development' is described as 'Establish a rolling design programme for the wider Mk 1 Scope in Anglia to support a rolling delivery programme over CP6, CP7 and CP8', delivered by securing 'the design resources to support a rolling design programme'.

The lack of detail for these three major project capex efficiency plans is a risk to preparedness for and delivery of efficiencies in year 1 and 2 and more significantly in subsequent years given the scale of total efficiencies they are aiming to deliver.

The route acknowledged that further work is required to develop its capex efficiency plans as a priority in year 1. In addition to addressing issues with the three plans set out above, its goal is as follows:

- Efficiency 'trackers' (i.e. plans) to be rolled out across all projects with explicitly identified efficiencies by RF8 (autumn 2019), together with workshops with the delivery teams.



- Efficiency 'trackers' (i.e. plans) to be rolled out across all other capex projects by RF11 (early 2020).

Track capex efficiency initiatives are based on achieving reduced unit costs and calculated using national programme models developed by IP Track (Category A). Track efficiencies have been calculated in detail, linked to delivery of relevant renewals workbank projects and programmes to the post-efficient unit costs that result; and it is assumed that if the work is delivered to the post-efficient budget, then the efficiency will have been achieved. These efficiencies are forecast at approximately £50m spread over CP6, but including significant benefits in years 1 and 2 linked to the route's planned High Output campaigns. As the efficiencies are contractualised there is good confidence in their delivery and lesser need for detailed documentation on plans and implementation and monitoring activity.

The route has the tools to develop further detail to describe its plans, business changes and implementation plans. The standard EPOP (avoiding the complexity included in the initial tranche of three reported above) and Project Efficiency Forms are a good basis for capturing detail to support and assure the route's efficiency plans, albeit that they do not currently capture implementation plans or risks. The route acknowledge that the application of these can be broadened to other initiatives and the contents enhanced to more fully document the changes, implementation plans and calculations to a broadly consistent base level of information.

Opex efficiencies:

Opex efficiency initiatives show good examples of detailed efficiency plans to describe the business changes required to achieve the forecast efficiencies. The route has established a dedicated Change Management Office (CMO) to plan the opex efficiencies as a programme of change projects. Opex efficiency initiative owners and their respective teams showed clear ownership and detailed knowledge of efficiency plans, explaining how these are being embedded within working practice. Detailed plans were provided as evidence. For example:

- **PLPR (Category D).** A robust efficiency description is provided within the Quarterly Efficiency Report to describe what the technology does and how it will generate benefits, from both a safety and efficiency perspective.
- **Optimisation of access (Category D).** A detailed description of the access planning review has been provided outlining the things the route has done or is preparing to do differently to generate savings by extending the productivity of standard possession and midweek cyclical maintenance opportunities.
- **NYL and Clacton Re-signalling projects (Category D).** Centralise signalling control enables a reduction in operational costs, creating an efficiency. This initiative is accompanied by a milestone plan and supported closely by the human resources team recognising the dependency on organisational and Industrial Relations matters.



b. Calculation of the forecast efficiency

We assessed the calculation of forecast efficiencies for our sample of initiatives, including the definition and justification of inputs to estimates, assumptions, methods and, where appropriate, the consistency of these with the approach agreed by Network Rail's cost benefit working group. Consideration of the uncertainty and risk within these forecasts and their delivery is covered in section (d) on 'approach to risk identification and management'.

As discussed earlier the responsibility for forecasting efficiencies is undertaken at 'project level' on a project by project basis where the SBP efficiency was derived 'top down' and at 'initiative level' if it was 'plan based'.

We have considered forecast calculations for the capex and opex efficiencies we assessed within the route.

Capex efficiencies:

Calculations for capex efficiency forecasts are being developed to respond to top-down targets set as part of the baseline plan. For example, within signalling, targets are based on outperforming pre-efficient (CP5) costs that are used to set top-down targets and benchmark Signalling Equivalent Unit (SEU) rates. The route provided evidence setting out how these post efficient targets were defined based on its CP5 costs. The efficiency targets were set via a combination of engineering judgment, subject matter expert experience, detailed knowledge of workbanks and priority or opportunity areas; and also Network Rail centre advice and data.

There is limited detail provided on capex efficiency calculations to justify the forecasts provided. We expected the calculations underpinning efficiency forecasts to vary depending on the scope, scale, maturity and complexity of each efficiency. In this respect, we did not see evidence to justify forecast savings in many of the larger value items, with little detail on calculations, particularly for capex efficiencies in year 2 where they are not structured and broken down as defined activities with corresponding bottom-up estimates.

There was a lack of robust calculations to support capex efficiency forecasts. Within signalling, the EPOPs for Cambridge and Clacton Re-signalling contained some calculations for larger value initiatives, whilst others are not detailed. Within our sample for E&P there were no supporting calculations. There is also no detail to support the phasing of efficiencies per annum. Examples where there was a lack of detailed calculations, for items where proportionate detail is required for larger items, include:



- **Cambridge Inner project EPOP (targeting £52m efficiencies).** A £4.5m initiative for 'production of a clear and robust scope for ITT, to minimise post contract change', is calculated based on an estimate of value engineering 40 signals at a saving of £75k for each in addition to a £1.5m prelims savings. There is no information to justify the source of inputs, or the rationale for calculation assumptions.
- **Clacton Re-signalling EPOP (targeting £17m efficiencies).** A £7.5m initiative to 'Challenge Standards' is based on estimates to complete throat remodelling, including 'Track remodelling towards London of £3.0m and OLE work of £2.0m'. There is no underpinning detail to support these estimates.
- **Clacton Re-signalling EPOP.** A £1.5m efficiency initiative for the 'early engagement of all RAMs to secure their buy in for the agreed scope of work' is not supported by a calculation.
- **OLE Mid-Life Refurbishment (targeting £37m efficiencies).** None of the efficiency initiatives are supported by forecast calculations, for this project that is now at GRIP stage 3.

As stated previously in part (a), the route acknowledged that its capex efficiency calculations are not yet mature and plans to roll out developed trackers across all projects by RF11.

Opex efficiencies:

We saw evidence of robust calculations for opex efficiencies. The CMO has established the scope of work for opex efficiencies, and has developed bottom-up forecasts with clear calculations and associated assumptions. Examples include PLPR and Optimisation of access. Both of these initiatives have been modelled and calculated using Activity Based Planning (ABP) data which is refreshed each rolling forecast. For example:

- **PLPR (Category D).** Each Maintenance Delivery Unit calculated the number of Basic Visual Inspections (BVI) that will be removed through moving to PLPR. The ABP tool was used to calculate the financial efficiency generated on an annual basis.
- **Access planning (Category D).** The ABP tool was used to calculate the financial efficiency generated from a 1% improvement in Non-Time on Tools (NTOT). This would be enabled by increase in the productive hours on shifts where the route are using Rules of the Route and cyclical access. The route has taken a prudent approach to forecasting this initiative as many of the benefits are not forecast to be delivered until the latter part of CP6.



- **'Lean' opex efficiencies are based on a top-down target.** We reviewed the opex lean efficiency initiative in the context of years 1 and 2 targets, noting that there is a total forecast efficiency of £5.2m assumed within CP6. This target was set based on the benefits achieved from Lean efficiencies achieved in the last 2 years of CP5 and by applying an efficiency 'stretch' target to later years in CP6. The route's strategy is also to overplan its Lean initiatives to mitigate the risk that other efficiencies are not achieved in full.
- **Efficiency calculations relating to SCO efficiency initiatives have been assessed by the route.** At the time of the SBP/RF11 baseline, the route was provided an efficiency forecast by Route Services for the SCO efficiency initiatives that we have considered across all phase 2 routes. Following a validation exercise the route retained this (albeit a small reduction of £0.1m), taking a view that stocking-point efficiencies would not be realised as the route have already implemented some of these improvements. This is evidence of the route assessing and validating forecasts. The route is working closely with Route Services to review the latest SCO forecasts, which are anticipated to be revised at RF8 following a review of national volumes.

The route adopted Intelligent Infrastructure efficiency forecasts but has yet to verify them. At the time of the RF11 baseline, the route was provided an efficiency forecast by the National Programme Team for Intelligent Infrastructure efficiency initiatives. The route adopted this £11.8m figure for planning purposes and are currently working with the Intelligent Infrastructure Benefits Manager and its Delivery Units via working and steering groups, to validate the benefits of the six Intelligent Infrastructure initiatives the route is planning to adopt in CP6. Following this exercise the route intends to review the forecast and update as necessary.

c. Arrangements for monitoring progress in implementing business changes

We assessed the arrangements for monitoring progress in implementing efficiency plans and business changes, to confirm if there is a clearly documented evidence of appropriate governance and senior oversight.

The route has a robust governance structure to provide senior oversight of efficiencies. The route has a number of well-established meetings, which provide assurance and senior project oversight of projects and efficiency initiatives, including Periodic Delivery Reviews, Anglia Route Change Portfolio Board and Deep Dive rolling forecast reviews. Further assurance is provided by attendance at the Benefits Calculation Working Group (BCWG) and the IP Southern Efficiencies Working Group.



Capex efficiencies:

Monitoring of capex efficiencies is primarily by tracking post-efficient project costs. As stated previously, projects are driving to their post-efficient budgets, assuming that if a project delivers to its post-efficient budget, then its efficiencies will also be delivered. In line with this approach, financial monitoring is via tracking the project post-efficient AFC with efficiencies accrued in line with Cost of Work Done (COWD). However, the reasons whereby a project cost evolves above or below its AFC will be due to a number of factors (for example, scope and schedule change, risk) so while this provides some monitoring assurance, this is not comprehensive. Additionally, it does not enable lessons learnt on efficiencies to be derived which could be applied to the benefit of projects later in CP6. With this as context, we note that Anglia reports confidence in the delivery of efficiency targets for its two major re-signalling schemes (Cambridge and Clacton) on the basis that their AFCs at GRIP stage 3 and stage 5 respectively are currently tracking close to target⁵.

There is no significant documented evidence of monitoring of capex efficiency initiatives at granular level. There are brief actions included for some efficiency initiatives within the EPOPs and Project Efficiency Forms, however these do not set out in SMART⁶ terms the action plans for enabling activity and for delivery, most notably for the high value and complex, change initiatives. The route are currently managing to post-efficient budgets with planning, delivering and monitoring activity undertaken as part of the workbank project governance process rather than explicitly managing the implementation of business change to realise expected efficiency benefits. There is little evidence of EPOPs being used to track benefits realisation.

There is no clear line of sight from the project plans to the Efficiency Tracker. It is not possible to identify and trace individual business changes and their respective implementation plans to the Efficiency Tracker. It is only possible to track forecast values against high-level initiative descriptions.

⁵ Cambridge and Clacton projects are currently forecasting AFCs which are less than the post-efficient target AFCs, by £2m on Clacton and £4m on the combined Cambridge Inner/Outer project.

⁶ SMART: Specific, Measurable, Attainable, Relevant and Time-bound.



Opex efficiencies:

We saw good evidence of opex initiatives being supported, tracked and monitored at a granular level. For example:

- **PLPR (Category D).** This efficiency initiative is supported by Route Programme Board, Assurance structure, and the track RAM. Various meetings are held with stakeholders to track, monitor and manage the initiative including periodic PDR meetings, PLPR Reviews, PLPR Workshops and coaching sessions. Within the Quarterly Efficiency Report the route has identified the key milestones required to achieve the efficiency, which is supported by a forward plan.
- **NYL and Clacton Re-signalling Projects (Category D).** This efficiency initiative, which is linked to the renewals project, is supported by a resource milestone plan leading up to the 'go live' date. Evidence provided confirmed that this initiative is well supported, and managed by the human resources and project delivery teams.
- **Opex efficiency plans are collated into an integrated plan for the years 1 and 2 which is tracked and monitored.** The CMO have produced an integrated plan which combines strategic level milestones for each opex efficiency to provide a holistic view of the route's change projects. This is a key tool for providing senior visibility and oversight at the Anglia Route Change Panel, highlighting where key resources will be required and where changes may impact on future milestone and therefore efficiency delivery.
- **Dedicated route resources in the CMO are responsible for efficiency planning and monitoring.** Based on the meetings held with the route and the additional evidence provided, it is apparent that the opex efficiencies have benefitted from dedicated CMO resource who has helped to define, develop, plan and execute the efficiency initiatives.

d. Approach to risk identification and management

We looked for evidence of the route's approach to the management of risks to its efficiencies plans, including its assessment of uncertainty in forecast savings.

We did not see significant evidence of quantification of risks to capex and opex efficiency forecasts.

For example, in identifying and applying risk-adjusted, range estimated and probabilised impacts on benefits of larger value items. Consideration of cost risk to efficiencies is implicit in forecasts as these are estimated by initiative owners and teams based on experience and engineering judgement as a 'most likely' assessment of benefits, although it is not possible to verify this from evidence or to quantify the degree of certainty or uncertainty embedded within these values.



The route holds an overall risk provision of £165m for CP6 which is to address risks to its renewals, enhancements and efficiencies portfolios. This figure is not currently disaggregated to provide visibility of its allocation to and management of efficiency risk. The route advise this will be assessed and confirmed at RF8.

Capex efficiencies:

There is a lack of documented evidence of the management of risks to capex efficiencies. We saw evidence that the route's efficiency governance and assurance forums provide some oversight of risks to efficiencies. There is also good evidence that RAM/Sponsor renewals governance group, described in the renewals section of this route report, also provide oversight of risks to delivery against post efficient cost budgets, albeit these are focused on project development and delivery factors. This emphasis on cost and delivery risk provides some level of assurance on risks to efficiencies. However, managing risks to post-efficient budgets does not provide sufficient management of risks to efficiencies, and is not well documented in the evidence provided. For example, it does not manage risks to key enablers being ready to support delivery of the more complex capex efficiencies by projects, Category B.

Where capex efficiency initiatives have been described as being 'opportunities', this appears as ideas that have not yet been validated. There are a number of examples of this within signalling EPOPs. As such, and without a documented understanding of risks it is difficult to ascertain whether these efficiencies are deliverable.

Opex efficiencies:

There is good evidence of risk management for opex initiatives. This included risk logs containing descriptions, exposure and mitigations, and initiative plans on a page with identified top risks with mitigating actions, owners and RAG (Red, Amber, Green) status. For example, for PLPR, the top three risks are included within the Quarterly Efficiency Report and documented in a risk register. A similar risk log has been developed for each opex initiative, which are then combined to produce a risk heat map visualisation of the key opex efficiency project risks across the route, highlighting areas requiring attention.

The route has established a 'hopper' for new opex efficiency initiatives. Recognising that the route may not achieve all planned efficiencies, as set out in the RF11 baseline, the route has established an efficiency 'hopper' within its Lean initiative. This is led by the route Finance team who are encouraging new ideas to be brought forward.



e. Identification and documentation of any limitations with the approach for forecasting efficiency, how lessons learnt have been incorporated into efficiency plans and whether ORR and Network Rail are considering the right factors in providing assurance that Network Rail is on track to deliver its efficiency plans

Forecast limitations

We have found that the forecasting of efficiencies is largely financially focused, deriving data into the fishbone tracker, with less emphasis on activity planning and implementation activity. At the time of the review, many efficiencies were tracking post-efficient targets, based on COWD, not efficiency forecasts.

Lessons learnt

We saw limited explicit evidence that the route has a defined and documented approach to incorporating lessons learnt within its efficiency plans. We noted the following where lessons learnt have been included:

- Anglia has developed a detailed cost model for its CP5 'baseline' costs which appears to be good practice to potentially measure improvements or efficiency at a more granular activity level.
- The route incorporated lessons learnt from CP5 in order to develop its CP6 targets, including the use of national calculators, the Infrastructure Cost Model (ICM) and the ABP models. The route also cited lessons learnt from Asset Working Groups where cross route learning has been shared.
- The route acknowledged that it could have done more to capture, document and share work done and learning to-date to generate efficiencies, for example on a key signalling project that is at GRIP stage 5, rather than developing an ex-post "efficiency plan" or EPOP for this.
- The route regularly attends the BCWG to learn from and provide feedback on the use of efficiency calculators.
- The route acknowledged the need for additional resources during the review based on the Reporter's emerging findings, and was considering addressing this as a priority.

Factors for providing assurance that Network Rail is on track to deliver its efficiency plans

We consider that an increased focus on monitoring of change management plans, initiative enabling activities, forecasting, monitoring and risk are appropriate for planning and delivery of what is a very significant efficiency programme. We have also suggested taking a proportional approach to focus on the Category B and D initiatives which are the most challenging and higher risk of achieving their forecasts.



Conclusions and recommendations

This section draws together our conclusions of our review of efficiencies and provides specific recommendations for ORR and Network Rail to consider.

The areas addressed as per the reporter's mandate are:

- Quality of efficiency plans
- Reasonableness of savings forecasts, based on efficiency plans
- Consistency of total efficiencies with final determination

Conclusions – Quality of efficiency plans

We defined our expectations of planning within the context of an overall Efficiencies Management System which is described in our assessment methodology at the start of this section. In answering this question, we have sought to consider proportionately and seek evidence of quality in efficiency planning where we believe it is most needed. For example, in our categorisation of efficiencies it is Category B (capex) and D (opex).

Our conclusions and recommendations from our review of a sample of initiatives are:

Capex efficiency plans are not sufficiently mature

The quality of the route's efficiency plans are not mature, or in many cases not established, which makes it difficult to provide assurance that the efficiency targets can be met and that there is clear visibility of how they have been met, beyond monitoring achievement of post-efficient AFCs. The route has focussed on developing bottom-up forecasts for three of their main CP6 renewals projects, which aim to deliver over £100m efficiencies. The level of detail within the EPOPs and Project Efficiency plan is not comprehensive and is either not supported by SMART implementation plans or not supported by any forecast efficiency plans or calculations.

The route has acknowledged that its capex efficiency plans are not mature and is planning to develop these as a priority area now and throughout autumn 2019. We consider that this is prudent as action needs to be taken now to improve the level and quality of capex efficiency planning.

By contrast, opex efficiency plans are much more mature, in most cases supported by proportionate, detailed implementation plans. This is driven by a dedicated CMO team who have developed tools to assist in the overall management and monitoring of these efficiencies.



The quality of capex efficiency documentation is insufficient

Consistent with Conclusion E1, efficiency plans have only been captured for three projects, of which their quality varies. Given the status of the three projects and others in CP6, we conclude that action needs to be taken as a priority to improve the level and quality of capex efficiency documentation.

By contrast, opex efficiency documentation is more mature, in most cases supported by detailed implementation plans and risk registers. This is driven by a dedicated CMO team who have developed tools to assist in the overall management and monitoring of these efficiencies.

Additional dedicated resource would assist in developing the efficiency plans

Opex efficiencies have benefited from having dedicated resources to help drive the efficiencies programme. Given the current quality of the capex efficiency plans, additional resource may also help to enhance the focus on capex efficiency plans.

The route operates efficiencies governance and assurance arrangements

The route has a number of well-established meetings, which provide assurance and senior project oversight of projects and efficiency initiatives. Many efficiency initiatives are currently being tracked and monitored by their AFC against the efficiency target, which does not give sufficient visibility of the factors, including efficiencies, which underpin the AFC forecast.

Efficiency reporting is lacking line of sight assurance

The Efficiency Tracker is not currently linked to and does not provide visibility of individual business changes. This lack of visibility makes it difficult to track and monitor business changes and their respective implementation plans, as opposed to forecast values only.

Conclusions – Reasonableness of savings forecasts, based on efficiency plans

Capex efficiency forecasts are not sufficiently detailed

Based on the capex efficiency plans evidenced in this review, there was not sufficient detail to support the forecast calculations in order to determine that the capex efficiency forecast is reasonable. We consider that this is a priority area for the route to focus on as detailed, validated calculations, which support the efficiency initiatives, will provide additional route assurance, beyond tracking AFCs.

Opex efficiency calculations are more comprehensive. There was evidence of underpinning detail including inputs, sources and assumptions. The route is continuing to work with the National Programme Teams to ensure that the forecast calculations for Intelligent Infrastructure and SCO are robust and achievable.



Conclusions – Consistency of total efficiencies with final determination

The route has set out plans that are consistent with its agreed share of Network Rail's target for CP6

This is summarised in Table 11. Anglia's baseline commitment for CP6 was for £357m of capex efficiencies and £57m of opex efficiencies, totalling £414m. At RF4 the route increased its total CP6 capex forecast to £366m, a 3% increase, and maintained its total CP6 opex forecast. The route also reprofiled efficiencies to reduce years 1 and 2 targets and increase these in later years, reflecting its confidence in deliverability.

	FY20	FY21	FY22	FY23	FY24	CP6
RF11 £m	48.3	79.6	91.0	114.4	81.1	414.4
Capex	43.1	70.3	80.5	98.7	64.5	357.1
Opex	5.2	9.3	10.5	15.7	16.5	57.3

RF4	44.4	74.7	97.0	107.0	100.6	423.7

% Change	-8%	-6%	7%	-6%	24%	2%

RF4 Yearly Profile	10%	18%	23%	25%	24%	100%

Table 11: Comparison of RF11 and RF4 route efficiencies*
*This data is inclusive of Efficiencies and Activity/Scope Efficiencies



The changes from RF11 to RF4 have been summarised by the route as follows:

Increase in capex efficiency forecast of (£9m) – This is due to additional planned rail milling.

Reprofiling of capex efficiencies – These were profiled based on total asset spend at RF11. They are now profiled based on estimated forecast COWD on the projects delivering the efficiencies. This has reduced year 1 and 2 capex forecasts from £113m to £105m.

Reprofiling of opex efficiencies – Intelligent Infrastructure benefits have been brought forward from years 4 and 5 of CP6 to year 3 based on the delivery programme for remote condition monitoring early in CP6.

Recommendations

Recommendation E1 – Enhance and develop efficiency plans

The route should develop and enhance their existing efficiencies plans to include further detail articulating, in SMART terms, each:

Business change – Defined plans for a programme of activity to deliver efficiencies and details of things the route has done or is preparing to do differently (enablers) to generate efficiencies.

Forecast – Key inputs, sources, calculation method, assumptions, and any risk adjustment and basis for profiling realisation of benefits.

Implementation plan – Key activity, actions required, owners, resources, schedule and key milestones.

Risk – Identification of key risks to achieving the forecast efficiency and mitigations.

When the route implements this recommendation we suggest it:

- Ensures that the level of planning and documented detail should be proportionate to the scale and complexity of the efficiency. i.e. more for the Category B and D initiatives and less for Category A and C.
- Provides guidance using templates, and completed examples to help illustrate the appropriate level of documentation required.
- Maintains a clear log of the version and change control, status and maturity of each plan and to define and quantify its alignment with the route's Efficiency Tracker.



Recommendation E2 – Enhance and utilise existing templates to improve consistency of efficiencies documentation at the project level across the route

The route should enhance their existing EPOP and Project Efficiency Forms to capture a sufficient level of detail on plans for, delivery of and quantification of all capex efficiency plans.

Recommendation E3 – Engage additional dedicated resources

Given the current lack of maturity of capex efficiency plans and the status of the projects which deliver a very large proportion of these, the route should consider engaging additional dedicated resource to improve the detail and quality of plans as soon as possible. Resources to focus on year 2 efficiencies as well as material plans in year 1 and 2 that are essential to forecasts for later years.

Recommendation E4 – Strengthen focus on efficiency enabler implementation plans at the initiative level

The route should strengthen their assurance and monitoring focus on implementation plans for enabling activities and change management products required to deliver efficiencies at the project level. This will provide more visibility on the progress of key efficiency enablers and allow for early intervention and action.

Recommendation E5 – Provide greater line of sight from granular efficiency initiatives to the Efficiency Tracker

For each efficiency initiative as identified in the route Efficiency Tracker, the route should log their sub-initiatives with their corresponding values, profiles and project, portfolio or programme ID in a master schedule, to provide traceability on how they contribute to the route Efficiency Tracker and a more granular breakdown of efficiencies.



Summary

We have provided below a summary of the routes preparedness to deliver its efficiency plans against headings requested at the mandate Steering Group.

Programme

Anglia's capex efficiencies programme is not sufficiently developed. It has started to develop plans for three major projects, targeting approximately £100m of efficiencies in total. These plans are not at a sufficient level of quality, with further granular detail on implementation needed. There is a high degree of dependency on these projects within the route's overall efficiency target. There is insufficient evidence to conclude that the route is prepared to deliver its efficiency plans.

The route has not yet developed a programme for the remainder of its capex efficiencies, but has set out a goal to develop this for all remaining capex efficiency plans before the end of year 1. The risk to the route's achieving its efficiency commitments for CP6 from year 2 onwards will grow until the capex efficiency programme is fully developed. Anglia has acknowledged that additional resources are needed to strengthen its capex efficiency programme plans, and is considering this as an immediate priority.

Anglia's opex efficiencies programme is more robust, and is benefitting from dedicated resources.

Forecast

The majority of Anglia's capex efficiencies were based on post-efficient targets. While bottom-up targets have been set out for some projects, there was insufficient detail to evidence of efficiency calculations that would provide assurance that forecast benefits will be achieved, although there are calculations for £50m of track efficiencies that is supported by detailed analysis.

There are not yet forecasts for the unplanned elements of the programme that are being developed in the remainder of year 1.

Some confidence is provided by the route's cost and delivery focus on the major renewals projects that have large efficiency targets, where these are forecasting to cost in line with their post-efficient budgets. This is not definitive, however, as project costs can and will vary for many reasons during development and delivery, and hence robust efficiency calculations that correspond to project-specific plans are needed.



Anglia's opex efficiency calculations are more comprehensive, with underpinning detail including inputs, sources and assumptions. The route is continuing to work with the National Programme teams to ensure that the forecast calculations for Intelligent Infrastructure and SCO are robust and achievable.

Documentation

The quality of documentation for capex efficiencies is not sufficient. The route has started to develop documentation for its three pilot capex projects and programmes, which needs to be developed with more detail on efficiency and activity implementation plans.

Anglia's opex efficiency documentation is more robust, in most cases supported by implementation plans, and developing tools and processes to assist in the management and monitoring of efficiencies.

