

# **Network Rail's response to ORR's Draft Determination: Eastern**

31 August 2023

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## Executive summary

We have continued to evolve our CP7 plans post Strategic Business Plan (SBP) submission, using the well-established, route-led approach followed throughout the Periodic Review 23 (PR23). We are confident in our regional strategic framework and in our devolved structure, that holds each of our four routes accountable and in full ownership of their discrete CP7 plans. Figure 1 shows our six regional priorities:



Figure 1: Our regional priorities

This document is our response to ORR's Draft Determination (DD) and focuses on changes and questions that have arisen since the SBP. These are outlined below and further developed throughout the document.

### 1. Transition and refinement of our risk adjusted plan

ORR has proposed that our risk adjusted plan will be the basis for review in the determination, on the assumption that contingency funding will be needed to support increased inflation and to establish risk funds in CP7. Taken in isolation for Eastern, this means a reduction of **c.£0.5bn** of renewals expenditure.

We refined and further developed our risk adjusted plan since our SBP submission. It now includes the latest position of our renewals plans in Year 5 of CP6. This improves confidence that our CP7 workbank reflects the best combination of renewals and life extension work within our funding envelope.

### 2. Additional core asset renewals activity

ORR's DD recommended an increase in core asset spend. Across England and Wales, ORR proposed £550m to address key areas of concern highlighted within the Technical Authority's (TA) assurance assessment.

Eastern has reflected **£30m** of that spend to support our earthworks portfolio, as recommended by ORR. Subsequent to this, and through close collaboration with Technical Authority, a further **£135m** was allocated to Eastern, to mitigate pressures in Track (£55m), Signalling (£30m), OLE (£20m) and Structures (£30m). This is in consideration of the latest CSI projections and the poor track condition in the East Coast and Anglia routes relative to other parts of the wider network, as well as enabling continuity for investment in OLE renewals that commenced in CP6 but is required to conclude in CP7 across the Essex Thameside area of Anglia.

### **3. Train Performance – Eastern position**

Eastern's ambition is to continue to deliver reliable train and freight services that are on time and meet customer needs.

For the On-Time, Freight Cancellation and Passenger Cancellation measures, we consider that ORR has not justified its proposed regulatory baselines with sufficient evidence and analysis.

We do not think that performance can be accurately forecast for all of CP7. ORR has proposed an alternative approach to train performance target setting which would set point values for the first two years of CP7 and indicative trajectories for the final three years which are subject to a 'reset', codified in the Final Determination.

Whilst this approach does not mitigate all the challenges, we recognise it as an improvement over the approach in the Draft Determination and we are working with ORR to provide the information required. Given the approach has only emerged in the last few weeks we have agreed with ORR that we will provide evidence to support credible passenger performance trajectories as an addendum to this document on 14 September.

### **4. Efficiency update**

In the SBP, Eastern set ambitious efficiency targets: **10% in OPEX** and **15% in CAPEX by end of CP7**. This equates to a net financial saving of **c.£0.76bn**, of which c.£0.32bn is OPEX and c.£0.44bn CAPEX.

We have reassessed the viability to achieve these targets following the challenges we face with the impact of inflation, overall reduction of portfolio spend and the transition to more refurbishment and repair activities. Despite these challenges however, we remain confident to deliver the targets we set, and that further efficiency opportunities will present themselves in CP7 and therefore we are maintaining our original SBP commitments.

### **5. Addressing the funding gap to support core asset spend**

To offset the funding gap following DD recommendations (and other expenditure and income pressures which have been identified since our SBP), all regions are required to support a further 2.1% savings from their pre-efficient SBP submission. For Eastern this figure equates to **c.£192m** (FY24 Prices).

Whilst we are working through the opportunities and implications of these further reductions, we are including this as a regional overlay to our CAPEX cost base. This will be further refined and

discussed both regionally and nationally due to the impact these reductions might have, including upon our stated outcomes at SBP stage.

## 6. Freight growth

Eastern's SBP position is to continue to support freight growth due to its key role in delivering economic growth across the country. At SBP stage we produced a freight strategy and increased our Heavy Axle Weight (HAW) spend by £35m, targeted on key structures to support key freight paths and a target growth figure of 7.5%. We welcomed ORR's agreement with our proposal in their DD.

## 7. Schedule 8

As discussed in our overall response, we do not support ORR's decision to not fully implement the lower Network Rail Schedule 8 Payment Rates at the start of CP7. We believe the new proposal (average 45% reduction in CP7 rate compared to CP6) is not appropriate as it does not reflect the latest empirical evidence and economic best practice, resulting in train operators being overcompensated by delays caused by Network Rail. We are not clear on ORR's justification for this proposal nor on how ORR have accounted for the risks of defunding vital infrastructure works that would arise from the overpayment to train operators as a result of unrealistic benchmarks and unjustified payment rates. Therefore, we think that the full reduction (c.75%) should be applied from the start of CP7.

# Eastern response to ORR's PR23 draft determination settlement document

## 1. Introduction and summary of key changes

This document is Eastern's response to ORR's PR23 DD settlement for the Eastern region, issued as part of its overall 15 June 2023 DD on CP7.

We reviewed and considered ORR's draft proposals, decisions, and actions, and this document sets out our response, specifically in relation to Eastern region. To inform this response, we undertook a targeted review of our CP7 SBP, as part of our iterative CP7 plan development process. This update has been reviewed and assured by subject matter experts. Recognising the limited time available to update, assure, and consolidate CP7 plans, our approach has been targeted and high-level.

The key changes we made since submission of our SBP to ORR in February 2023 can be summarised as follows:

Figure 2 shows changes to Eastern's financial response. For CAPEX, this represents the move from the SBP 100% base plan to the risk adjusted plan post-DD. The largest reductions are in track, signalling, structures, and Electrification and Plant (E&P), as signposted by the regional risk scoring

framework. We have included £29m incremental spend on earthworks and a further £135m post-DD for key interventions on our signalling, E&P and track assets across the region.

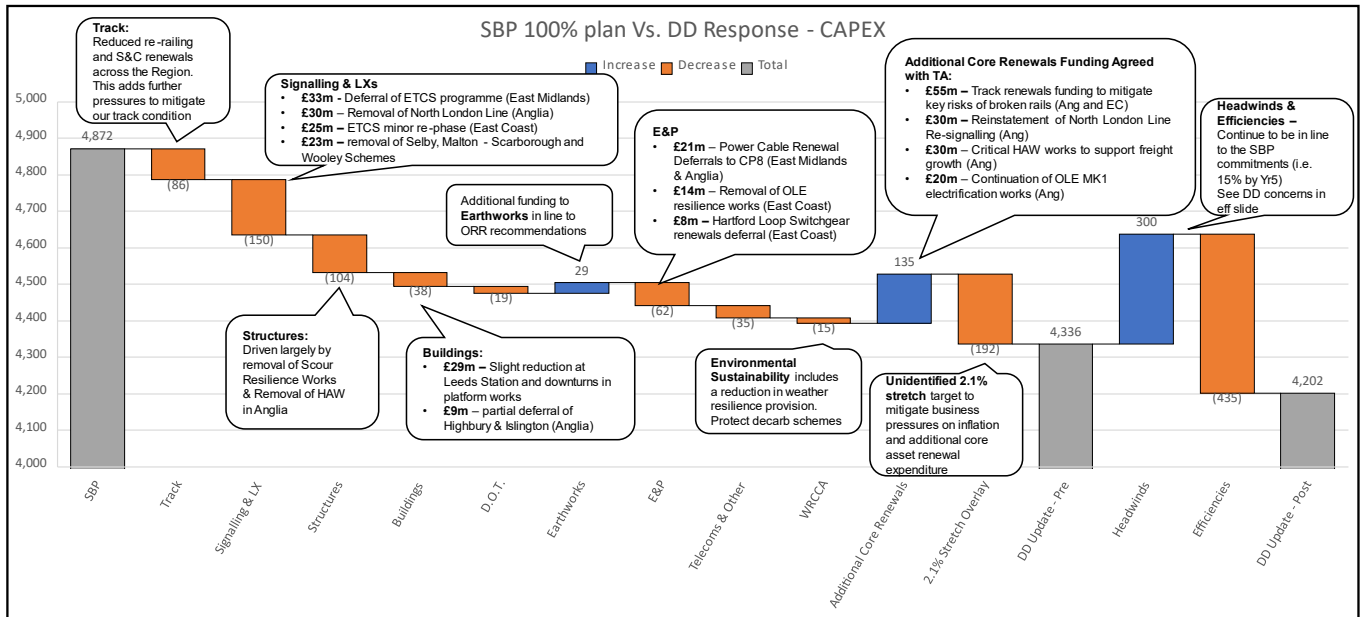


Figure 2: SBP plan versus DD response - CAPEX

For OPEX, cost pressures from RF11 and RF03, including workforce reform and inflation, are offset by previously included stretch for Modernising Maintenance, and overlays of £18m.

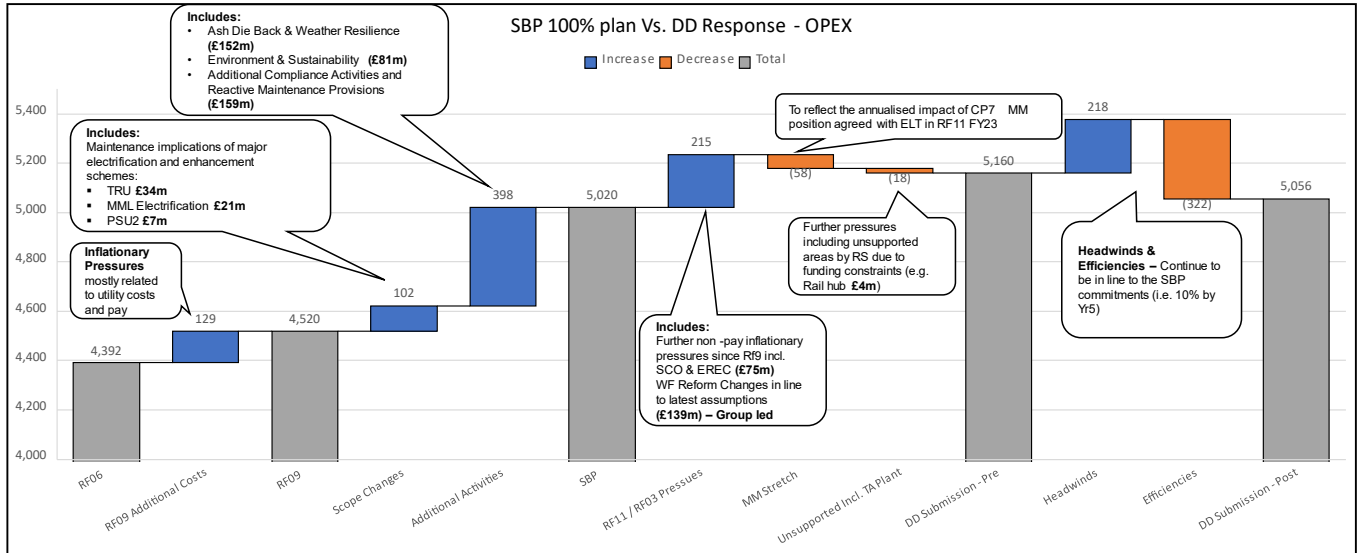


Figure 3: SBP plan versus DD response - OPEX

For Income, we recognise a 3% increase against SBP, largely driven by an increased property sales target of **£8m**, increased freight income growth forecasts of **£24m**, and revised Schedule 4 and associated ACS impacts based on latest workbanks and assumptions of **£45m**.

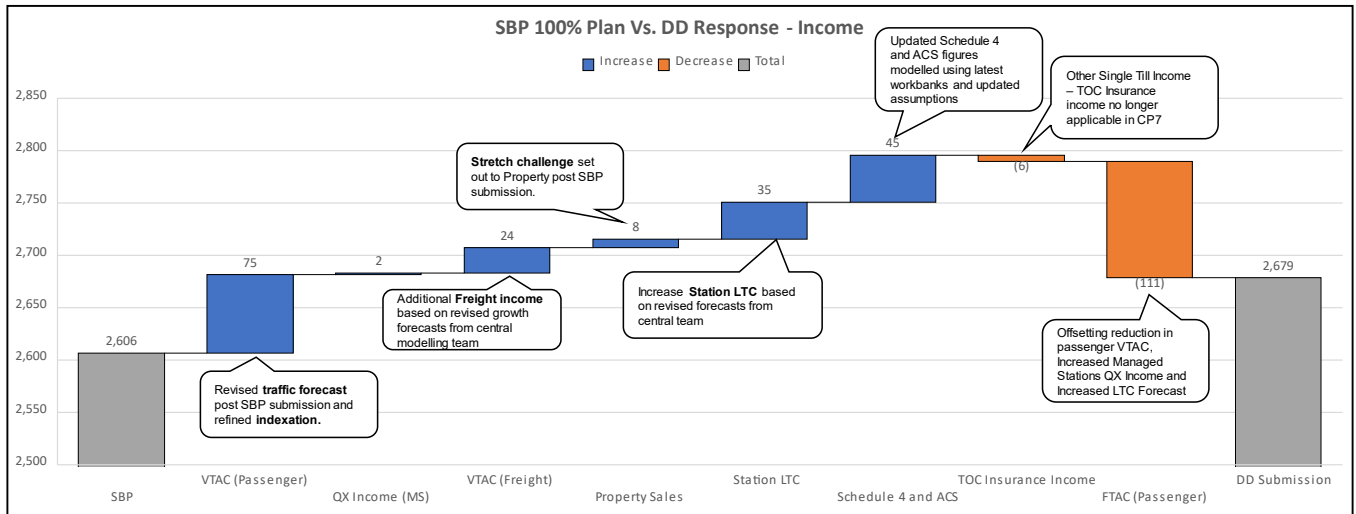


Figure 4: SBP plan versus DD response - Income

## 2. Safety

The purpose of this section is to respond to ORR’s findings in relation to safety, as set out in Eastern’s settlement document.

### Risk and operational controls

ORR’s DD set the expectation for Network Rail to demonstrate how it will manage the shift in risk profile resulting from fewer renewals and a more maintenance-based approach to infrastructure management.

To manage asset risk, we took a more short-term approach and invested in refurbishment activities. However, our plans include additional maintenance to support critical activities identified in our CP7 plans such as Mair & Slingo drainage recommendations, mitigate the risk from Ash Die Back and other scope changes activities described within our SBP. Further detail is outlined throughout this section.

Eastern region has also developed its own risk scoring framework, used to prioritise our workbanks on an ongoing basis as plans evolve.

More broadly, and as discussed in our overall E&W response, we have used the safety bow tie risk assessment to demonstrate the alignment between our maintenance and renewals plans in CP7. We have answered 25 questions that the TA has developed which enable us to assess the level of alignment between our maintenance and renewals plans (including that the funding provisions for maintenance activities in CP7 are scaled appropriately) and identify any gaps which we will seek to address as part of the development of the delivery plan and into CP7. Please see the TA assurance report for a summary of the answers to these questions for each region.

## Modernising Maintenance

ORR's draft determination states that it requires Network Rail to demonstrate that it will deliver the necessary efficiencies within the resources available and sustain the required capability to maintain the assets. Eastern are committed to delivering £34m of the overall £100m of annual savings achieved nationally by the end of CP6. This is enabled by a number of changes but the cost saving itself is primarily a headcount reduction. We think the benefits that we have identified for CP6 are stretching but realistic. As discussed in our overall response, we do not think there are any further, material opportunities from the maintenance modernisation programme in CP7, over and above the savings already identified to be delivered in CP6 (and these efficiencies have been factored into our CP7 starting position).

Alongside this, as part of the voluntary redundancy process, ensuring that we retain the right knowledge, capabilities and expertise in CP7 and beyond was a key part of the selection panel process. Where experienced individuals are leaving the organisation through the voluntary redundancy programme, the go live criteria includes having a clear plan in place to address any capability gaps before going ahead with the proposal under modernising maintenance.

Eastern region's Modernising Maintenance programme goes live on the 9 October 2023 across all four routes. Training plans have been validated via the National Modernising Maintenance Safety Validation, and Network Rail Assurance Panel (NRAP) meeting on 23 June, which reviewed training as part of go-live readiness. This update was well received by the panel members. Regular training reviews are in place with the regional training team. Route safety validation consultation and HazIDs workshops continue with positive employee engagement from Works Delivery (WD) and Maintenance, engaging with colleagues across all levels of those organisations.

Headcount development is progressing well across all routes. The voluntary redundancy process is moving forward, and routes have had offers accepted from employees. Recruitment for promotional roles in each route maintenance organisation is planned and underway. The recruitment process for rostering teams has concluded in each route.

The routes are demonstrating successful gradual embedment of Modernising Maintenance into their structures, supported by dedicated programme teams leading implementation. Anglia has undertaken a dry run, testing the new resourcing principles and ways of working. This successfully delivered a rail change and level crossing deck lift with internal teams working together without contractor support.

The routes have explored the potential requirement to absorb increases to workloads. For example, the North and East (N&E) maintenance function has been sized to deliver the existing workload, however, as changes are embedded and efficiencies realised, the capacity of the workforce should increase. This, together with the ability to utilise works delivery staff, sub-contractors, and additional overtime, will enable delivery of additional volumes should they be required.



We will take the opportunity given by Modernising Maintenance to enhance the competencies of those working within our maintenance organisation, as well as those in our engineering community who support them. This activity will be heavily influenced by the team currently coordinating our regions response to the findings of the Carmont investigation, as well as broader factors such as improving sustainability, biodiversity and weather resilience.

Our approach to developing competence will be collaborative, drawing together route engineering and maintenance teams, with the emphasis being on identifying requirements and developing appropriate competencies in responses. Activity will be coordinated by the relevant Competence Delivery Specialists, supported by our colleagues in our Route Services led training organisation.

### **Earthworks renewals and drainage maintenance**

Following the Lord Mair report, earthwork renewal plans remain prioritised within funding constraints to ensure delivery of the report action plan. This was achieved through a combination of internal risk prioritisation and alignment to policy and local route priorities. Where changes were made to the plan, they were informed by the regional risk scoring framework. Assurance was undertaken throughout the planning process by the Eastern Engineering and Asset Management team and by the TA. As part of this assurance process, the TA recommended that an additional £30m be allocated to earthworks. This was incorporated into our latest plan, covering works across embankments, soil cutting and rock cutting activity.

Risk based drainage inspection and drainage maintenance frequency are set by an agreed regional risk-based approach. A higher level of inspection and maintenance is required where it contributes to earthworks or track safety. By the end of CP6, the drainage inventory will be complete and the drainage inspection and maintenance frequency agreed by earthwork managers for high and medium high-risk sites.

A recommendation from the Lord Mair report was to have more resource put into this vital drainage activity, ideally dedicated maintenance teams across all routes, rather than drainage being only one of the activities for which off-track section managers are responsible. This will be implemented in CP7 and we are now aiming to accelerate this recruitment of additional maintenance staff, where training in Yr5 of CP6 can deliver additional drainage activities from the start of CP7. Staff will be employed across our four routes as per outlined in our CP7 plans.

### **Fencing**

Animal incursion risk is greatest in Anglia and N&E routes, as the volume of the Class 3 boundary asset in poor condition is highest across Eastern. Funding for Class 3 boundary renewal has, therefore, broadly been protected through the CP7 planning process in both routes, allowing asset condition, and therefore risk, to recover during the next funding period. It has been recognised that the life expectancy of timber fencing in all four routes, is significantly lower. Modern, less toxic treatments are less effective in preventing rot, resulting in CP4/5 renewals reaching end of life in CP6. In response, we switched to steel posts for longer lasting, more sustainable renewals.

The risk of deer strike has increased as the population rose following the covid pandemic, due to a reduction in culling. Working in partnership with LNER on EC route, we identified deer strike hot spots, and are trialling targeted deer proof fencing and electronic systems to keep deer away from the lineside. If successful, these solutions may be adopted more widely in the region, particularly on high-speed lines.

### **Vegetation**

Eastern routes undertake cyclic tree surveys to identify dead, dying, and diseased (DDD) trees presenting a safety risk, including trees impacted by ash dieback (ADB). Each route has a flexible programme to address high risk trees identified by the survey. In addition to the on-foot survey, hyperspectral data is being collected by a national project, this data will become available in late 2023 and will allow a more data led approach to be adopted. This will provide a portfolio view of DDD trees, allowing areas with a concentration of high-risk trees to be prioritised for on foot DDD survey, or to be managed as part of the wider vegetation compliance works. Funding for this workstream is sufficient to maintain the safety position in CP7 based on current data. Managing third party DDD trees remains a challenge.

All route teams continue to engage in the seasonal management process and target vegetation works as required to manage the risk of Signals Passed at Danger (SPaD) due to poor rail head conditions in leaf fall season, and to maintain signal and crossing sighting to maintain safety.

Achieving our full recovery commitments for vegetation profile compliance remains challenging following the funding constraints post SBP. Maintenance teams continue to prioritise work in line with current agreed priority areas in the early years of CP7 and in line to funding available. A regional vegetation and biodiversity strategy is expected to be developed before end of CP6, followed by vegetation and biodiversity plans in early CP7. These plans, based on better available data will allow re-assessing compliance to current commitment levels in CP7.

### **Track worker safety**

During CP7, focus on track worker safety will continue. Each route has committed to retain a designated team to roll out current and future activities to support this; these include installation of semi-automatic train warning systems (SATWAS) to remove the use of lookout operated warning systems (LOWS). With product acceptance secured, there will be ongoing trials of the prototype for automatic train warning systems (ATWAS). The use and installation of ZKL track circuit operating devices will continue, in conjunction with maintenance and upkeep of existing ZKLs. We will continue to both improve access points to ensure they are fit for purpose and create new ones to reduce the amount of walking on the lineside. Improvements to lighting and signage continues into CP7, helping to tackle slips, trips, and falls, and improve situational awareness.

We are focussing on new technologies to further enhance track worker safety. This includes trialling geofencing to address the rise in incidents and operational close calls caused by a lack of situational awareness. We will explore the potential use of drones and artificial assisted technology (e.g., Hubble) for various inspections, reducing the requirement to have colleagues lineside. Remote disconnection devices are going through product acceptance, giving us the ability

to trial and understand the benefits. The lead sponsor for Remote Safety Switch technology is in Eastern region; product acceptance is being sought, along with the creation of trial sites. Milestones will be developed in the Delivery Plan.

### **Occupational health and fatigue**

Our CP7 health safety and wellbeing ambition is to create a whole organisation approach, minimising the effect of ill health on our business and making a healthy workforce inevitable.

This will be delivered through Eastern's devolved routes business model. Workshops to develop a collaborative implementation plan are scheduled for periods 07 and 08 in 2023-2024, and will be launched at the region's Health, Safety, and Environment Conference in October 2023.

Our plans to establish Network Rail owned and operated occupational health centres lie at the centre of our CP7 strategy. These will be implemented before the control period starts with teams integrated thereafter.

Our approach to fatigue balances business needs with that of our people. Roster clerks, trained on effective rostering principles and who know the people they are rostering, will be introduced to manage roster patterns. Our signalling recruitment, right sizing of the maintenance organisation and introduction of a rostering tool that supports decision-making are key enablers to managing fatigue.

An interim tool is being developed with a built in Fatigue Risk Index (FRI) calculator. The longer-term rostering solution for both maintenance and operations will also include an FRI calculator, which will be available from October 2023.

We recognise that fatigue has many causes. In addition to rolling out technical solutions, all routes plan 'hearts and mind' activity to change the culture around working when fatigued. This includes extensive training on fatigue, its causes and management that will initially be rolled out to route rostering teams before extending to line management, supervision, and workforce.

### **Work related ill health**

Work to reduce instances of ill health continue to be core to our wellbeing plans, with further detail to be provided in the Delivery Plan.

Exposure to diesel fumes: By the end of CP6, routes will have identified and completed their sampling strategy, which will inform each route's response for CP7. It is anticipated that further required engineering controls will be integrated within the appropriate asset work bank owned by the relevant Route Asset Manager (RAM).

Welding fumes: Eastern will continue to collaborate with TA and our wider supply chain to identify ways of working that further reduce exposure to welding fumes. We will continue awareness activity focused on improving compliance with and utilisation of our existing control framework.

Musculoskeletal injury (HAV and Manual Handling): Activity to promote and assure use of existing controls continues, and we will develop our control arrangements as technological solutions become available.

Asbestos: This has been identified as potentially affecting many maintenance activities. The asbestos management plan issued by the DEAM makes Route Directors *asbestos duty holders* and asset managers *responsible persons*. These posts will be responsible for the active management of asbestos. Asbestos management surveys were undertaken with annual re-inspections where asbestos was present. Several areas have access restrictions pending remediation where asbestos has been damaged. Strategies are being formulated to risk assess maintenance tasks against archetype reports. Further surveys are likely, particularly in areas accessible to the public.

#### **Level crossing risk and risk reduction activity**

Eastern region is seeking to reduce risk so far as is reasonably practicable within the funding available.

East Coast have previously upgraded a number of crossings owing to the high-speed nature of the route; however, East Coast Digital Programme will address/upgrade all Level crossings up to Stoke Tunnel.

Over 80 miniature stop light installations (MSLs) will be implemented over CP7 and many manually controlled barrier crossings (MCBs) will be upgraded. Other interventions include signage alternation and modernisation, provision of audible warnings, Minimum Road Open Timer (MROT) improvement and Covtec system removal and replacement. In addition, level crossings will closed where practicable.

#### **Market led and safety**

We continue to take a market-led approach to developing our CP7 plans. This aims to align our planned CP7 delivery outcomes to what the market values. Delivering a safe railway is paramount and is prioritised in our planning approach.

Continuing our work on market-led and whole industry planning will be key to reducing the current overlay in our plan, and there may be opportunities beyond this to support the delivery of our plan during CP7. Realising this opportunity will hinge on a whole industry approach to planning and delivery, as well as broader industry, government and regulatory support.

Eastern are building a comprehensive value-based planning approach that will be implemented in CP7, which includes safety as a key value criteria for decision making.

### **3. Performance**

The purpose of this section is to respond to ORR's findings and draft decisions in relation to train performance, as set out in the Eastern region settlement document.

We are committed to improving train performance but need industry collaboration to do this, we do not currently have a clear view of operator contributions. Eastern's ambition is to continue to deliver reliable train and freight services that are on time and meet customer needs. We engaged with our operators throughout the CP7 planning rounds to gain input into performance forecasts. Our ranges submitted within the Strategic Business Plan (SBP) included operator contributions, as outlined in our narrative, and model input schemes. Following the DD, operator engagement has

continued but has not afforded further operator led opportunities or risks to the trajectory. Uncertainties around the Annual Business Planning process and a longer-term view of activity means the operators are unclear on performance improvement activity and risk throughout CP7. The majority of passenger operators have low levels of certainty in respect to train service specification, and in some cases, this extends to rolling stock assumptions.

With inherent uncertainty in performance forecasting and without a clear view of operator contributions to train performance, we do not think that performance can be accurately forecast for all of CP7. We have written to ORR to set out our concerns with the draft determination approach, metrics and baselines.

ORR and Network Rail have agreed an alternative approach to train performance target setting, which would set point values for the first two years of CP7, with indicative trajectories for the final three years. These are subject to a 'reset' to be codified in the Final Determination. Whilst this approach does not mitigate all the challenges and significant uncertainties remain, we recognise it as an improvement over the approach in the Draft Determination and we are working with ORR to provide the information required. Given the approach has only emerged in the last few weeks we have agreed with ORR that we will provide evidence to support credible passenger performance trajectories as an addendum to this document on 14 September.

We consider that ORR has not justified its proposed regulatory baselines with sufficient evidence and analysis, and it has not set out the assumptions made on operator contributions or on external factors. Eastern has modelled On-Time performance and applied a range that represents our ambition to improve performance. This incorporates the levels of industry uncertainty as well as a level of variation that can reasonably be assumed through the performance forecasting process. Our modelling process has been developed over the last 18 months in conjunction with subject matter experts both internally and with the operators. ORR's own independent reporter, ARUP, indicated a suitable balance between deliverability and ambition.

It is critical that we continue to work with operators to build robust train performance plans. Since receiving the DD, our engagement has continued with key operators to understand further impact on the industry numbers throughout CP7. The recent request from the Department for Transport (DfT), to progress with service changes on the East Coast Main Line (ECML) in 2024, serves as a poignant example of the need for industry to work together in addressing uncertainty and influencing plans to achieve train service performance.

ORR's approach must incentivise appropriate behaviours, include how it uses metrics (such as the balance of On Time performance and revenue generating services, and the balance of On Time and Cancellations as a network management approach) and set realistic baselines. It is imperative that metrics, such as On Time and Cancellations, don't lead to an imbalance and risk influencing industry behaviour such that management of the train service during perturbation generates poor outcomes for passengers. This is particularly important in Eastern, given the very diverse nature of its geographies, train services and markets. Setting overly stretching targets for both On Time and Cancellations means that both metrics become disproportionately more difficult to achieve.

It is absolutely critical that we continue to work with operators to build robust train performance plans. Because the assumptions and plans will continue to evolve, flexibility is essential in CP7. This is wider than the Managing Change Policy, but it is likely that we will need to trigger managing change as operator and external assumptions impacting performance forecasts evolve.

We have continued to work with operators and reflect updated assumptions on the CP7 operating context to develop refined train performance ranges.

**On Time**

Table 1: Passenger On Time forecasts for CP7 as at SBP

Success measure	CP6 exit forecast	100% funding CP7 exit forecast	Risk adjusted CP7 exit forecast
Passenger On Time	69.0-70.0%	68.4-70.8%	

Note these numbers are as per SBP and will evolve for our 14<sup>th</sup> September submission

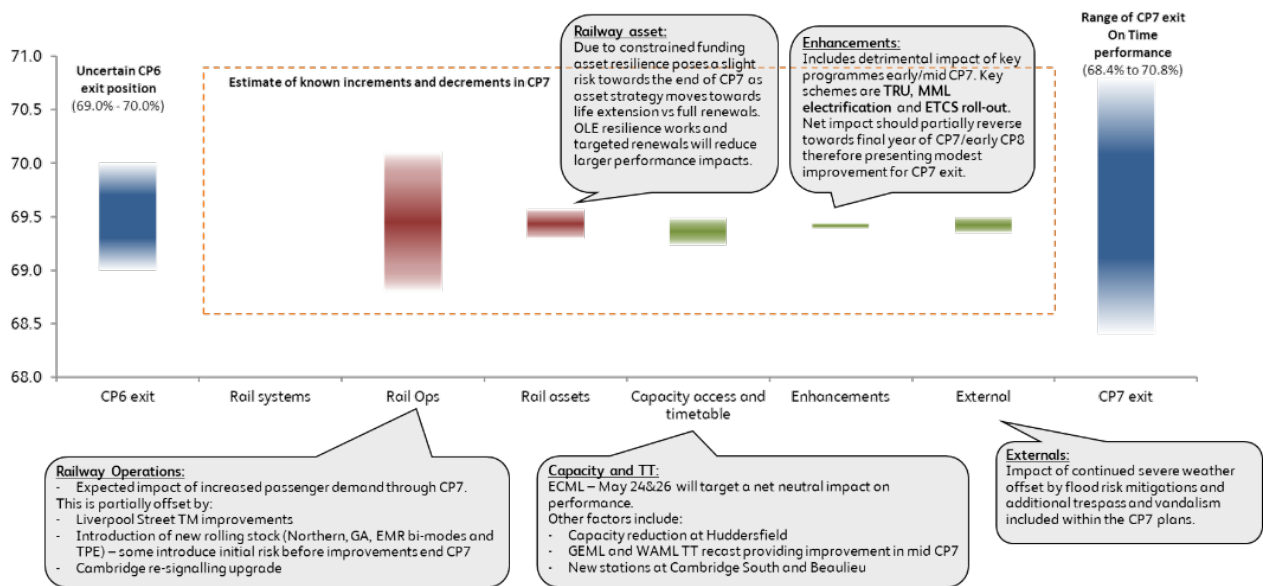


Figure 5: Waterfall showing change in On Time from CP6 to CP7

The region provided a range in the SBP for Passenger On Time, based on uncertainty in CP7 surrounding levels of train service; passenger growth; industrial relations; and funding of enhancements. The DD provides a number at the top of this range, though it is unclear what ORR has assumed in respect of such uncertainty – particularly service specification across the region. In addition, modelling of performance associated with the uplift in Elizabeth line services is an example that highlights the potential impact on performance that changes to service levels can have.

- Operator initiatives were included in our forecasts and further engagement has not led to any material variation to the ranges set out within our SBP
- To meet the top of our range, we need to focus on the ‘unattributed’ On Time failures – currently circa 54% of failures fall into this category which limits our ability to drive improvement. Often these are systemic issues which cause frequent, small delays, that add up to significant volumes.
- We estimate that bridging the gap between our P50 modelled outcome and the DD’s target of 70.8% requires the following contributions: Network Rail 0.62pp, Operator, 0.44pp and the industry unattributed focus delivering 1.30pp. Noting that we cannot accurately assume how many unattributed On-Time failures would be in Network Rail’s direct control, industry collaboration is essential.
- The historical context supports the SBP range and demonstrates that the DD point target is extremely challenging and requires several interventions that are as yet unquantifiable.
- Pre-pandemic, the only time the bottom of the SBP range (68.4%) was exceeded was in P6, FY16 (68.5%), based on a data review from the start of CP5.
- The East Coast ESG (currently due in Dec 24) is currently modelled as net neutral. We continue to assess and quantify the risk that this assumption poses to performance both on the EC and any knock-on impact to adjoining routes. The assumption to hold the ESG impact as net neutral could contribute to Eastern’s performance stretch in CP7.
- The proposed MTR service uplift that was originally factored into our numbers has not yet taken place. We will need to consider when/if the performance risk will now materialise and think about how we quantify this.
- Other Risks includes asset reliability concerns under a more financially constrained plan and delivering major engineering works utilising adjusted plans and interface with key enhancements.

**Passenger cancellations**

*Table 2: Passenger cancellations forecasts for CP7 as at SBP*

Success measure	CP6 exit forecast	100% funding CP7 exit forecast	Risk adjusted CP7 exit forecast
<b>Passenger cancellations</b>	2.7-3.8%	2.7-3.8%	

*Note these numbers are as per SBP and will evolve for our 14<sup>th</sup> September submission*

The DD provides a target that is outside of our range. It is unclear how ORR number has been derived given the flat application nationally, and the development of a new cancellation metric based on missed station calls.

A high level of risk has been associated with this as the level of TOC caused cancellations has risen in recent periods, and it is uncertain when this trend will reverse. In order for the Eastern number to get close to the bottom of the range provided, significant operator contribution would be

required. Operators such as Govia Thameslink Railway (GTR) and Northern, who are the top two contributors to Eastern cancellations, would need to achieve an estimated ~0.85pp and ~1.53pp reduction respectively in train crew cancellations alone. This is based on 2022/2023 performance and would be needed to return train crew cancellation numbers to near pre-covid levels. It is a similar scenario for many other TOCs that operate on the Eastern region. We have continued our engagement with the operators and based on their responses, we do not believe there is sufficient evidence to achieve the DD target (2.3%).

- An historical data review shows that pre-pandemic, the DD number has not been achieved since P02 FY19 which coincided with the introduction of the May 2018 timetable
- There was a correlation between the number of station stops and cancellations until ~P02 FY23 when the industry began to be impacted by industrial action. Given station stops are rising and higher than when the previous best cancellation numbers were achieved, we believe the SBP range is appropriate
- Risks to delivery include
  - TRU disruption and associated diversionary route driver knowledge
  - asset reliability under a constrained plan
  - the ability to manage a trade-off challenge between cancellations and On Time
  - the ability to manage the new cancellation metric
  - the residual impact of P-coded operator cancellations.

**Freight Cancellations**

*Table 3: Freight cancellations forecasts for CP7 as at SBP*

Success measure	CP6 exit forecast	100% funding CP7 exit forecast	Risk adjusted CP7 exit forecast
<b>Freight cancellations</b>	1.5-2.8%		1.5-2.8%

*Note these numbers are as per SBP and will evolve for our 14<sup>th</sup> September submission*

The DD provides a target that sits outside of our range and is deemed a high risk. The uncertainties previously described will potentially impact freight and passenger services. Disruption to the rail network over the last 12 months, including industrial action and blanket heat speeds, has demonstrated how freight cancellations can be severely impacted as they do not have the same processes for ‘before the day’ cancellations as passenger services.

- More understanding of the anticipated freight growth and risks that this poses to performance is required
- Historical data demonstrates that recent years’ performance is significantly more volatile, mainly caused by the metric’s susceptibility to significant weather events and industrial action, both of which provide future uncertainties
- The region believes the recent volatility justifies the bottom of the SBP range as a best case and reasoning from ORR for the DD number below the range suggested would need to be understood



- Risks to delivery include asset reliability under a constrained plan; unanticipated increase in severe weather events; industrial action; service recovery plans combined with anticipated uplift in freight traffic; and impact of timetable changes.

#### 4. Freight growth

Our SBP set out a clear commitment to deliver our freight growth targets, which were accepted in ORR's DD. Delivering these targets requires a combination of making sufficient paths available to freight operators and ensuring that there is sufficient demand for these paths from freight users. Wider funding pressures mean that we are reviewing how we deliver the outcomes in our SBP, including freight growth. We will work with stakeholders to understand how best to deliver the freight target we set ourselves.

Eastern's SBP position is to continue to support freight growth due to its key role in delivering economic growth across the country. At SBP stage we produced a freight strategy and increased our HAW spend by £35m, targeted on key structures to support key freight paths and support our target growth figure of 7.5%. We welcome ORR's agreement with this proposal at DD stage.

We engaged with the freight team and utilised their expertise, alongside GBRTTs strategic freight unit, to help formulate our freight strategy for CP7. We have input into key forums, such as the HAW working group, Level 1 commercial meetings and a variety of other regional stakeholder engagement sessions, to ensure that we capture the view of the freight community. We believe that this plan will continue to deliver freight growth through CP7.

#### 5. Asset sustainability

The purpose of this section is to respond to ORR's findings and draft decisions in relation to asset sustainability, as set out in the Eastern settlement document.

##### **Response on additional core asset renewals activity**

We reviewed ORR's proposed updates to funding and activity in the DD. As set out in the overall NR response, we agree that there should be more spend on core asset renewals and across England & Wales, we have increased our core asset renewals expenditure by £535m, which represents the majority of the £550m proposed by ORR. We worked closely with the TA over the last few months to review ORR's recommended increase in core asset renewals expenditure and our plans, to identify where further expenditure is required based on the latest asset information.

As discussed in the overall NR response to ORR's DD, we made some changes to our plans to fund the additional core asset renewals activity. We continued to protect safety and train performance whilst retaining 'right-sized' strategic priorities in our plan for the longer-term benefit of the network. Additionally, we do not want to be overly reliant on a small number of areas to deliver savings, and it is important to maintain as much flexibility as possible to respond to risk and uncertainty during CP7. Therefore, as set out in our overall response, this additional asset expenditure will be funded through a range of savings across our plan, including an overlay to regional plans c.£600m.

Eastern has received £30m of that spend to support our earthworks portfolio, as recommended by ORR. Subsequent to this, a further £135m was allocated to Eastern to mitigate pressures in Track (£55m), Signalling (£30m), OLE (£20m) and Structures (£30m). This is supported by TA, in consideration of the latest CSI projections and the poor track condition in the East Coast relative to other parts of the wider network as well as enabling continuity for investment in OLE renewals that commenced in CP6 but is required to conclude in CP7 across the Essex Thameside route of Anglia.

Including an overlay to regional plans at this stage in the planning process provides us, and all regions, with additional time to identify both the activities that could be de-scoped or deferred, and further market-led and whole industry initiatives to fund additional expenditure. This will support us when considering how we address the overlays for our delivery plans. For our region, this represents an £192m overlay and we are exploring options for where these savings could be achieved, including market led, whole industry initiatives. We are reviewing the implications of the financial pressures post-SBP on our stated outcomes, and will take any changes through the 'managing change' process.

Our minimum levels of activity (i.e. our red lines) are based on an assessment by our Technical Authority of the required levels of asset renewals to maintain a safe railway during CP7 and are at a sufficient level to not require an undeliverable step up in activities in CP8 and beyond to continue to deliver safe asset performance.

### Earthworks plans

Our plans incorporate additional £30m to support further works across embankments, soil cutting and rock cutting in line to expected levels of activity and volumes following the DD recommendations.

Across our routes we will be focusing on areas of higher risk, particularly soil and rock cuttings. This is an area with a history of incidents as reported in our safety affecting failures analysis. This will be an uneven spend across the routes in Eastern due to the varying topography and geology with N&E holding more at-risk assets. Earthworks funding has been protected with planned spend and volume delivery aligned to CP6 forecast.

Increased provision has been made for Geotechnical Instrument Arrays / monitoring. This will increase asset knowledge and understanding of risk, supporting short term decision making and informing earthwork management plans and the development of long-term renewals plans. The earthworks and drainage teams continue to engage on CP7 proposals to ensure effective investment and decision making across the system. A greater focus will be placed on maintaining and refurbishing drainage systems which form part of high-risk earthworks assets, particularly within cuttings.

### Track condition

Following discussions with TA, we have increased our funding for track risks across Eastern, particularly in the East Coast and Anglia routes. We believe the risk of lower renewals in this area

would significantly impact future performance, particularly with broken rail incidents on high speed lines.

Figure 6 shows the number of broken rail incidents in high-speed lines across the country. Eastern recorded over 36% of the entire network’s broken rails over the past seven years; the ECML being the worst performing main line due to the age of its rail. In addition, c.12% of all broken rails occurred on the ECML, which only represents 3% of the network mileage.

This type of asset failure represents significant risk at high speed, particularly as two thirds occurred on the fast lines, indicating that the main causes are high dynamic loads caused by speed and dips in rails, not freight trains. There is c.500 miles of 30-year-old rails still to be upgraded on ECML, so this funding will enable renewal of some key areas.

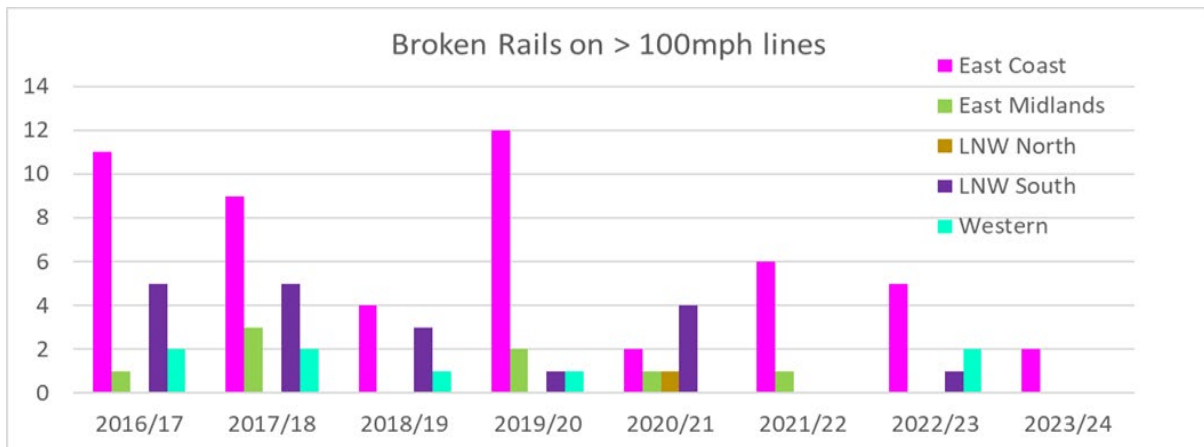


Figure 6: Main line comparison for broken rails

Signalling – NLL Scheme

The North London Line Re-Control and Life Extension project is critical in providing life extension work by closing the mechanical boxes and centralising the interlockings, and therefore enabling future re-signalling works for the wider north London area. The key benefits are the removal of legacy systems through the introduction of new technology which will result in lower risk of human error in the future.

This scheme has already been deferred from CP5 and CP6 and works are now essential to the North London Line to ensure an operational asset.

OLE – Mark 1 (Mk1) programme

Mk1 equipment has been seeing an increasing trend of failures since 2015, and as of Feb-22, contained 63% of all OLE defects on Anglia, despite making up just 35% of the asset base. The majority of this equipment is due for renewal by the end of CP8. By maintaining a continuous presence of a main contractor on the route, the region benefits from the capability to rapidly deploy a sizable team for emergency works, minimising the impact of failures on end users whilst maintaining a lower unit rate due to the continuity.

Incremental E&P funding has therefore been agreed to reinstate continuation of this CP6 scheme as we work through CP7, ensuring our renewals continue and we remain able to respond swiftly to any failures.

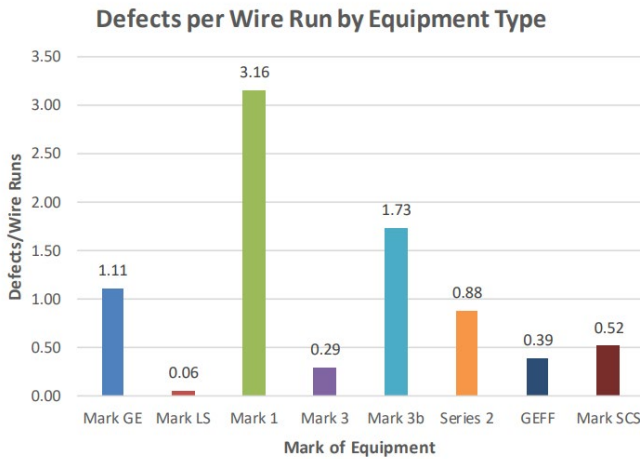


Figure 7: Defects per Wire Run by Equipment Type

**Structures – Heavy Axle Weight (HAW)**

Despite our financial pressures, we have secured our Heavy Axle Weight commitments that we funded in SBP. This is critical to our regional commitment to support freight services & achieve our freight growth targets.

**Composite Sustainability Index (CSI) forecast for CP7 and beyond**

ORR estimated the impact of increases to core renewals expenditure on the composite sustainability index (CSI) in draft baselines in the Draft Determination, and ORR asked that in our draft determination response that we provide more accurate forecasts. Having reflected changes to our renewals expenditure in our cost and volume plans for CP7, and we are now able to provide a more accurate forecast of CSI. This is based on:

1. Updated renewals volumes submitted by regions
2. Revised changes in inventory and expected condition at the end of CP6
3. Recalibrated model results

CSI for Eastern is forecast to reduce by 2% over CP7.

The following table demonstrates the differences in CSI between the data modelled at SBP and our current plans adjusted for risk. The original modelling resulted in an asset base with a residual value of 7.5% below today’s, and this will only worsen as further risk adjustments are made to the plans.

Table 4: Differences in CSI between SBP and risk-adjusted plan

Discipline	TA Modelling for CP7 CSI (£m)	Risk-Adjusted Plan (DD) (£m)	% Reduction
Track	1,295	1,264	-2%

Lineside	87	76	-13%
Signalling	960	851	-11%
Level Crossing	203	192	-5%
Structures	642	568	-12%
Earthworks	228	257	13%
Drainage	135	127	-6%
Buildings	416	379	-9%
E&P	723	681	-6%
Telecoms	71	60	-15%

### Maintenance plans development in constrained renewal volumes

ORR's DD did not account for our latest maintenance plan submission to ORR (April 2023), which showed greater alignment between our maintenance and renewals plan but recognised that further work was required. We continue to develop our maintenance plans for CP7, which will be a key area of focus to the CP7 delivery plan. This involves planned region wide workshops with accountable owners from each route and discipline to assure and refine our plans to ensure consistency of approach and sharing best practice across all routes. As discussed under the safety section we will also, we have provided input to and support the approach to developing the bow tie risk assessment framework developed by TA.

The routes are highlighting training to be included as part of Modernising Maintenance plans to align new working practices and competency requirements.

We continue to develop maintenance responses to the Mair and Slingo reports, and Ash Die Back, both of which have funding in CP7. Using intelligent infrastructure and train borne data, we will continually improve our asset intelligence and optimise maintenance plans. Undertaking bottom-up review of work volumes by delivery unit relative to renewals strategies has led to several changes across the ABP submission. This now better reflects the volumes of each work activity spread through the control period. Examples include the following:

- Track plain line and S&C maintenance volume increases in line with less than preferred renewal volumes
- Track inspection reduction from Year 1 onwards due to applying risk-based maintenance (RBM) on track
- Maintenance Scheduled Tasks (MSTs) reductions in track circuits due to application of RBM
- Increased drainage maintenance aligned to Mair and Slingo recommendations
- Increased vegetation volumes aligned to ash dieback risk management
- Significant increase in axle counter maintenance progressively from Year 1 to 5, due to impacts from Digital Railway on East Coast including Kings Cross and Hitchin, and reduced signalling related MSTs from Year 3-5 with Welwyn - Hitchin Signals away

- Hosting sessions to progress the Route Infrastructure Engineer and maintenance teams' interaction within the ABP model
- Focusing on key compliance activities, using embedded processes to manage and mitigate service affecting failures
- Maintenance activities modelled with resourcing gaps identified and mitigated via overtime and contract labour.

### **Vegetation**

There is more funding for the management of vegetation in CP7 than CP6. This is still below the sum required to manage the lineside environment in a sustainable way due to increases in the unit rate for delivery, and historical under investment in this area. Safety will be prioritised, including the management of dead, dying and diseased (DDD) trees, and leaf fall sites to manage Signals Passed at Danger (SPaD) risk. A compliant vegetation profile will be prioritised on key routes, in areas with a concentration of DDD trees identified by survey or from hyperspectral data, or in areas agreed with TOCs or FOCs as a priority.

During CP7 the way we manage vegetation will more fully meet the needs of Electrification & Plant (E&P) to manage the risk of vegetation contact to OLE; and signalling, to manage the risk of signal and level crossing sighting. It will align with our commitments to achieve net biodiversity gain. Our intervention workbanks will be updated and based on better data as Digital Lineside Inspection (DLI) goes live in CP6 Year 5 in time for the CP7 Year 1 inspection season. We will also use hyperspectral data, collected in CP6, to inform CP7 priority from Year 2 onwards.

### **Managing risk from reduced structures renewals**

Structures renewals were prioritised within funding constraints through a combination of internal risk prioritisation and alignment to policy, and local route priorities. Changes to the plan were informed by the regional risk scoring framework. Assurance was undertaken throughout the planning process by the regional engineering and asset management team and the TA.

To support sustainable and proactive management of defects, the annual reactive maintenance budget has been increased by 20% in CP7. This will enable a greater number of defects to be addressed at a lower risk threshold before further deterioration occurs and the risk profile increases. This will allow cyclical campaigns of planned preventative maintenance to be delivered on key assets or along key corridors, for example, on the approach to key stations where access is challenging.

Eastern's examination recovery plan was submitted to ORR on 30 June 2023 with further engagement throughout July. It should be noted that risk assessments are undertaken on all non-compliant examinations; these take planned renewals into consideration to determine whether further action is required in the interim. Additionally, the deferred renewals register and associated risk assessment is used to document and manage the risk of deferred renewals, ensuring that controls are appropriate.

**Lineside buildings**

Throughout CP6, the provision of emerging CAPEX budgets has gradually increased and is protected into CP7. This allows for proactive and targeted 'minor renewals' to be undertaken promptly by Works Delivery in response to defects highlighted by BAU examinations. This ensures emerging safety and performance risk is proactively managed.

Enhanced visual examinations were undertaken on all lineside estates within Year 4 of CP6. A relatively small proportion of defects were identified; remediation is planned in CP6 or CP7 depending on urgency and severity. Following this programme of initial examinations, routine examinations are being established for each asset. These will identify any future deterioration and support formation of proactive long term work banks. Based on initial surveys of the portfolio, we are not anticipating a significant rise in the identification of defects requiring urgent attention during CP7.

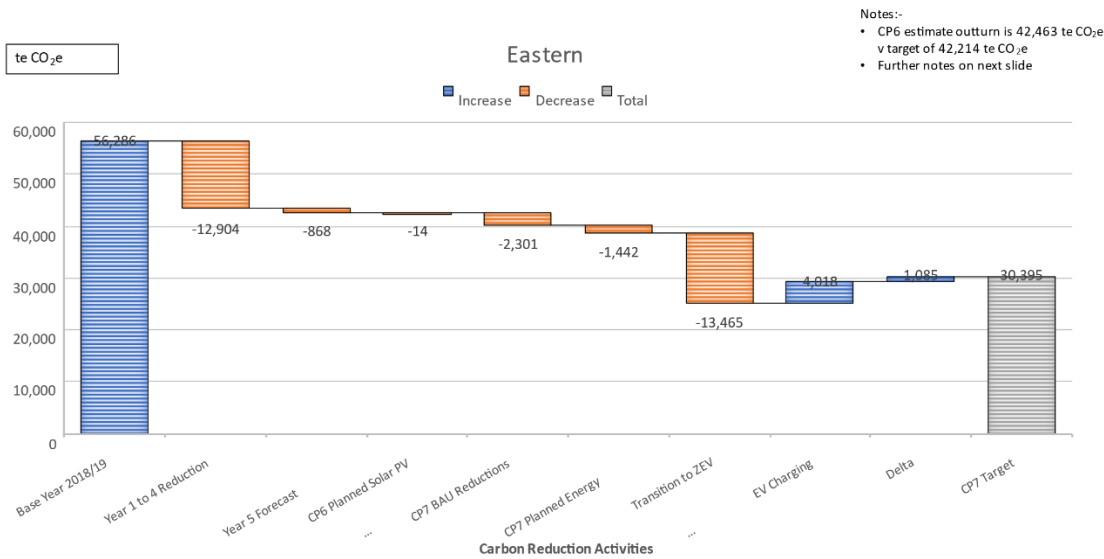
**Biodiversity and carbon emissions**

Eastern region's proposals for reducing Scope 1 and 2 emissions are in line with previous work on science-based targets. They meet ORR expectations to reduce carbon emissions by 46% from a CP5 exit position, which equates to an effective reduction of 21% in CP7 from the CP6 exit target. We provided ORR with an updated carbon glidepath covering our proposals for CP7. We established that c.50% of our energy is consumed at 22 sites, including our three managed stations. We developed work packages for these sites, which are ready for tender when CP7 frameworks are confirmed. We anticipate these sites will take 12-24 months to deliver and during this time we will continue to develop a pipeline of projects to achieve additional savings, such as removal of natural gas and installation of renewables.

We set up a fleet transformation programme team to work with routes and the National Road Fleet Transformation project to deliver zero emission vehicles separately from the decarbonisation workstreams. The decarbonisation benefit of the switch to zero emission vehicles (ZEV) is included in our carbon glide path. Work is ongoing to develop a programme for both installation of charging infrastructure and the roll out of ZEVs, including staff engagement, details of which will be shown in the delivery plan.



## CO<sub>2</sub>e Reduction – CP6 & CP7



5

Figure 9: CO<sub>2</sub>e reduction – CP6 & CP7

Eastern has an overall target to improve biodiversity by 10% by 2035. We recognise that we must start working towards this target during CP7 and have proposed a trajectory of 1% gain across the estate from 2025 onwards. Additional funding has been identified to deliver biodiversity net gain based on work on the Transpennine Route Upgrade (TRU) project. This funding will primarily be used for extra enhancement works at the vegetation management sites within the existing workbanks to establish higher value habitats such as woodland fringe. We will pilot enhancements at NR sites that are underutilised either by improving existing habitats or removing invasive species. We recently launched a partnership with the Wildlife Trust to help us deliver stakeholder events, plans and techniques to deliver this target. Detail on Eastern’s biodiversity initiatives will be included in the delivery plan.

We are still embedding the new biodiversity measure. While we are using the best methodology available, there is a margin of error that must be considered in monitoring year-on-year percentage changes. Qualitative assessment will likely be an important part of ORR’s monitoring in this area to provide a balanced assessment throughout the Control Period, and we will work with ORR to agree the right approach to this, including the development of supporting for the evaluation of progress in this area.

Eastern are investigating the benefits of a circular economy approach in our design and procurement processes. Our Capital Delivery functions have produced case studies that can be embedded into future projects, to complement the resource efficiency workshops that are already taking place. There will be an increased focus on waste management, where training programmes are being developed to improve behaviours, and site facilities will be improved to increase segregation of waste and therefore recycling.



Social Value initiatives are considered as part of each major project. In addition, a central budget has been allocated for CP7 for route level initiatives. Details will be included in our delivery plan.

Eastern will aspire to include potential impacts of the Environmental Improvement Plan and relevant updates from the Rail Policy Statement as it emerges. Further detail will be included in the delivery plans.

### **Removal of polychlorinated biphenyls (PCBs) contaminated electrical equipment**

Special Inspection Notice (SIN) 209 - Regulatory Requirements for PCB Contaminated Equipment activity will be completed in October 2023, and will identify the locations where PCBs are above the allowed quantity. Temporary variation (TR81156) allows the maintenance teams time to understand the implications. As many of the old Principal Supply Point (PSP) installations were renewed in CP4, 5, and 6, there are not many locations expected to be identified in N&E and East Coast routes.

In East Coast, the Power Supply Upgrade (PSU) project is removing most of the booster transformers, however, these may remain an issue in N&E (Doncaster to Leeds or Leeds - Skipton / Ilkley / Bradford). In the East Midlands, the ongoing Midland Mainline Electrification projects (L2C and L2W) removed all PCB contaminated transformers as part of their booster removal scheme. Anglia's CP7 plan includes the removal of PCBs contaminated electrical equipment (booster transformers) in Years 1 and 2. There is also provision in CP7 for the removal of those that are yet to be assessed but are expected to be above the PCB limit. These are predominantly in Anglia Route, which has identified funding for reactive transformer and other related assets that might contain PCBs. This is in addition to the c.£2m dedicated to the booster transformer workbank which already includes PCB removal.

Our plans assume that the proposals set out in the Department for Environment Food & Rural Affairs consultation on proposed amendments to The Environmental Protection (Disposal of PCBs and other dangerous substances) are not implemented without a further national impact assessment, including any incremental funding that would be required to implement them.

### **Earthing and bonding**

Low voltage earthing and bonding issues are reviewed from the workbanks generated by OLE bonding patrols and BS7671 inspections undertaken on NR managed buildings. Train operators / other lessees carry out BS7671 inspections to identify issues on their assets.

Most issues are rectified under the buildings and civils discipline / workbank. However, some use the minor works route budgets and this is expected to continue in CP7.

In Anglia, on the routes electrified before 1965, a number of specific LV / 25kV bonding issues are under investigation. There is a specific project in CP6/7 to survey these areas which will generate a project in CP7 that is funded in the CP7 submission.

## **6. Accessibility**

We note ORR's comments in relation to accessibility in the settlement document.

Providing an accessible and inclusive railway remains a core commitment in Eastern's CP7 planning. In our SBP, we set out how we aim to improve accessibility for our passengers, and we continually consider this commitment as we refine our plans for the next control period.

Eastern continues to engage with the Lift and Escalators team, as well as major stakeholders and station operators. Further analysis of footfall at stations highlighted a higher demand for lift and escalator accessibility at key stations, while the data indicates a trend of availability decline. The routes prioritised funding for lift renewals at key franchised and managed stations to improve accessibility where footfall and demand is highest such as Newcastle and Kings Cross. However, we have also made provision at stations with lower traffic where performance data highlights increased risk of failure. These include Rotherham Central, Sheffield, Chesterfield, Leicester and Luton. Prioritisation was informed by reliability data and age profiles.

Further examples of interventions include improvements at Leeds Station to install a 'changing places' facility. At Liverpool Street station, there will be significant transformation of accessibility and wayfinding if the planning application for Project Mersey is successful.

Across all routes, we continue to engage with our operators on Access for All (AfA) schemes and funding applications for a range of accessibility improvements have been made for CP7. We intend to work with System Operator and the GBRTT accessibility team on an approach to investment prioritisation which will consider how we maximise journey opportunities amongst other important considerations.

## 7. Efficiency

We are committed to delivering the ambitious 10% OPEX and 15% CAPEX efficiency targets for CP7 that we set out in our SBP. On the latest iteration of our CP7 regional plan this equates to c.£0.76bn, split between c.£0.32bn of OPEX efficiency and c.£0.44bn of CAPEX efficiency.

We have reassessed the viability to achieve these targets following the challenges we face with the impact of inflation, overall reduction of portfolio spend and the transition to more refurbishment and repair activities. Despite these challenges however, we remain confident to deliver the targets we set, and that further efficiency opportunities will present themselves in CP7 and therefore we are maintaining our original SBP commitments.

Since SBP, we have strengthened our efficiencies pipeline. Workshops were held within the region, including the routes and Capital Delivery, to discuss progress on our Eastern led efficiencies, where progress is subject to peer review and challenge. Good practice was shared, to accelerate all routes to the optimum position to achieve our CP7 targets.

Examples include initiatives on track access windows. To test ways of minimising the industry impact of disruptive work, N&E investigated 'line of route planning', packing work items into fewer, longer blockades that are designed to maximise the work done in each access window. By using new multi-disciplinary delivery contracts, they also gained synergy from site setup and reduced unit costs.

East Coast are trialling mid-week blockades, to minimise weekend disruption and reflect the change in passenger profile post-covid. Learnings are shared with other routes to improve our overall plans. For both opportunities we continue to work closely with our train and freight operating colleagues, as we do for our whole industry initiatives.

PACE, SPEED and MVP principles remain a key driver in realising efficiencies for the region. As set out in the SBP, these will be embedded into each route. Full workbank reviews will be held to identify opportunities within each project, with cross functional representation to generate challenge.

### Capex Efficiencies

Figure 9 provides a comparison between the deliverer allocations across the workbanks following the move to the risk adjusted plan. The percentage of Capital Delivery (CD) workbank in CP7 Vs. Work Delivery (WD) is 58% versus 65% in CP6, a fall of 7% when excluding other delivery agents).

Latest CP7 Workbank Submission Pre-Reduction (£m)					Reductions (£m)				New CP7 Spend (£m)			
Asset	CD	WD	Other	Total	CD	WD	Other	Total	CD	WD	Other	Total
Track	744	526	28	1,298	2	(33)	(1)	(33)	746	493	26	1,264
Off Track	-	78	5	83	0	(6)	(1)	(7)	-	72	4	76
Signalling	400	202	359	961	(52)	(1)	(57)	(110)	347	201	302	851
Level Crossings	91	86	25	203	(11)	3	(3)	(11)	80	90	22	192
Structures	432	168	41	641	(72)	(10)	8	(74)	361	158	49	568
Earthworks	124	88	17	229	29	4	(4)	28	153	92	12	257
Drainage	12	120	5	137	(1)	(5)	(4)	(10)	11	115	1	127
Buildings	186	186	45	416	(27)	(10)	(1)	(38)	159	176	43	379
E&P	420	254	49	723	(27)	(19)	5	(42)	392	235	54	681
Telecoms	38	6	26	70	(9)	2	(3)	(10)	29	8	23	60
Other Renewals			99	99	0	0	(8)	(8)			92	92
<b>Total</b>	<b>2,446</b>	<b>1,716</b>	<b>698</b>	<b>4,860</b>	<b>(168)</b>	<b>(76)</b>	<b>(69)</b>	<b>(314)</b>	<b>2,278</b>	<b>1,640</b>	<b>629</b>	<b>4,546</b>
<b>% Allocation</b>									<b>50.1%</b>	<b>36.1%</b>	<b>13.8%</b>	
<b>% Allocation CD Vs. WD</b>									<b>58.1%</b>	<b>41.9%</b>	<b>N/A</b>	

\*Excludes Regional Renewals and Minor Overlay

Figure 10: Comparison between deliverer allocations across workbanks

The opportunity to deliver efficiencies within the Capital Delivery portfolio is larger as it includes most of our flagship efficiency initiatives in CP7 such as PACE/SPEED/MVP. The reduction in both overall renewals value and Capital Delivery share of the workbank reduces the scope to achieve our SBP targets. This is reflected in our updated efficiency workbank modelling, that now presents a Year 5 efficiency of 12.5% versus the original 15% target and c.£40m of overall gap built up throughout CP7 (excluding the impact of unidentified stretch overlay in renewals on our overall efficiency target). Figure 10 helps to illustrate this point.

Despite these challenges, we remain confident to deliver the targets we set, and that further efficiency opportunities will present themselves in CP7 and therefore we are maintaining our original SBP commitment of 15% efficiency by year 5.

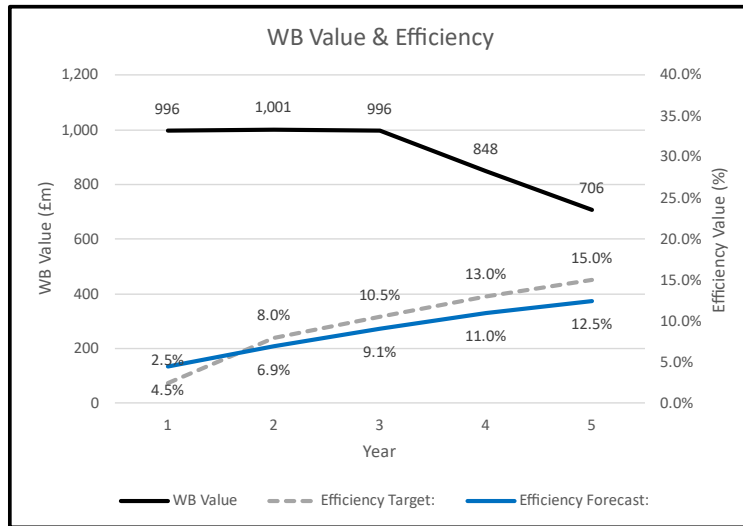


Figure 11: Work bank (WB) value and efficiency

### Operations Efficiencies

As part of our CP7 commitments, we are maintaining our SBP target of 10% efficiency in OPEX by the end of the control period. This equates to c.£76m in Operations efficiencies. We are targeting this through the following key initiatives:

**Managed Stations Integration:** Working closely with operators to develop integrated organisational designs at major stations, to drive efficiencies for both NR and operators by having a single, integrated station team. This will reduce duplication and provide passengers with a better experience.

**Premium Time:** We will develop better Management Information to understand productivity and efficiency opportunities within the Operations teams staff costs. To support this, we will create improved location-based productivity reporting to identify key areas of opportunity (Resource Required vs. Deployed), (Fixed & Variable Elements) to improve rostering capability and assurance.

**Control Integration:** This programme will deliver an integrated operating model for route controls across the region. When implemented it will create a new control structure, promoting collaboration between NR and participating train operators with a single point of ownership to drive efficiency, improve safety and deliver a seamless passenger experience.

### Other Efficiencies

We also note that around 30% of NR's total CP7 efficiencies relate to our share of industry reform savings, and that this may be more challenging to achieve given delays to reform legislation. Not all initiatives require legislative reform (e.g., we are already delivering joint accommodation efficiencies) but ORR support for driving forward and delivering these whole-system savings will be instrumental.

Beyond this, we continued our engagement with Route Services and TA to identify further ways to collaborate and work closely in future, to ensure we maximise opportunities available to our

region. Mapping will ensure key initiatives, such as High Street Principles, R&D developments, and Intelligent Infrastructure will be fed into the correct forums within the region and routes to generate the most traction and value.

In addition, our Industry Efficiency Board continues to provide a forum to identify cross-industry efficiencies and challenge all parties to realise the benefits which can arise from improving cross industry collaboration. Figure 11 shows how we will prioritise our activity into CP7.

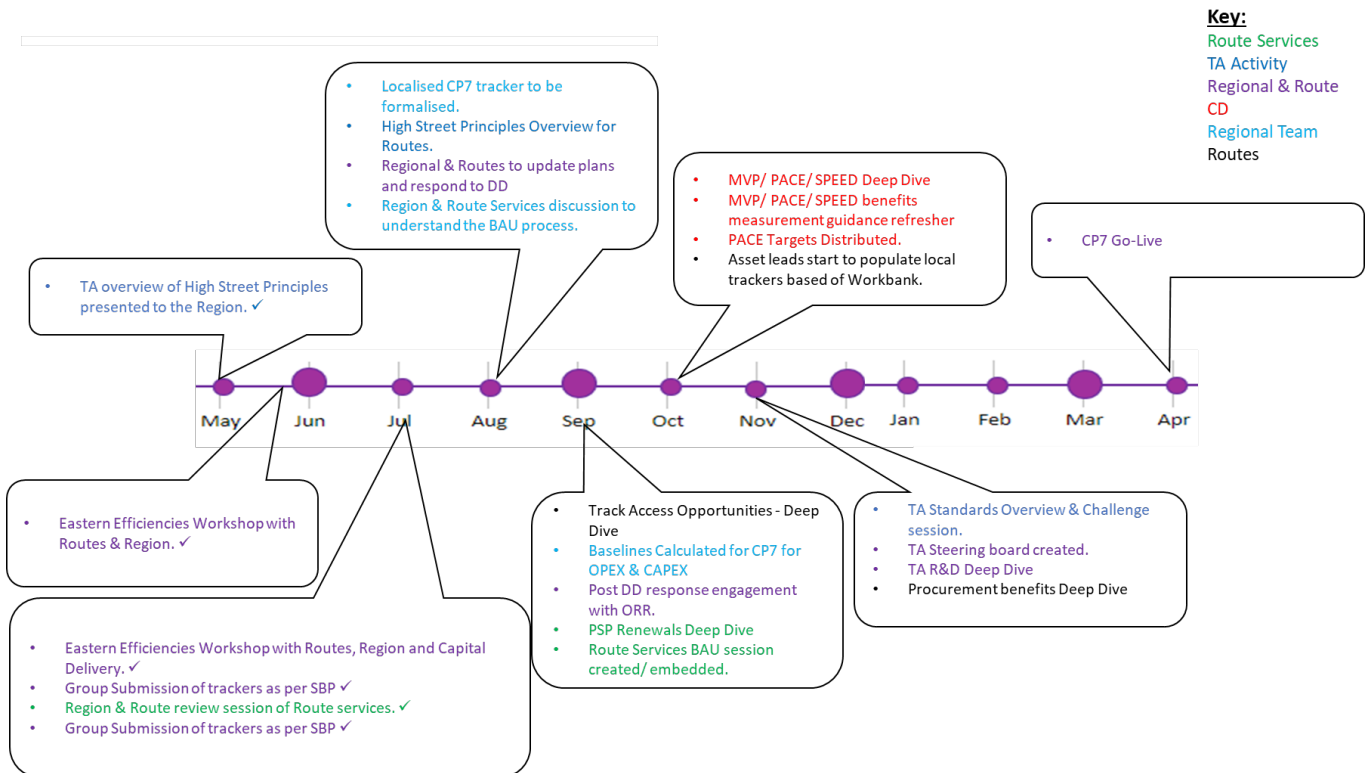


Figure 12: Eastern efficiencies roadmap

## 8. Financial risk

Our SBP assumed £2bn of risk provisions in England and Wales based on £500m funding in Group, with £1.5bn held as contingent activity across region plans. The impact of recent higher inflation forecasts on CP7 plans means that we have already absorbed £1.5bn of additional cost through our move to the risk adjusted plan (i.e., removing contingent activity from our plans by £0.3bn for Eastern<sup>1</sup>). Therefore, we start CP7 with lower risk funding than stated in the SBP.

<sup>1</sup> This takes into account both the £0.5bn impact of moving to risk adjusted plan and the £165m incremental funding identified with TA

However, we identified a proportion of our input price provisions to sit within risk funding. This reflects uncertainty about whether the previously observed relationship between CPI inflation and our own costs will be re-established after we move on from our current, high inflation environment.

Currently, we believe that the plan is deliverable. However, any material changes in future inflation, material Schedule 8 payments or other significant unplanned financial outlays will necessitate a review of plans to further prioritise activity to keep within the funding available. Changes to plans during CP7 would be taken through the managing change process.

We note that Schedule 4 and 8 costs are a significant driver of financial risk. The level of our exposure will depend on ORR's decision on payment rates, which will be decided as part of the final determination.

## 9. Stakeholder engagement

We note ORR's comments in relation to Eastern's stakeholder engagement in CP7 and recognise the continued importance of close engagement as we refine our plans throughout CP6 and into CP7.

Since the publication of the SBP, meaningful and effective engagement with our stakeholders has continued across the region. Following workshops with our passenger operators earlier this year, each route is developing discrete plans to enhance collaboration and cooperation for all major workstreams.

As presented in our SBP stakeholder engagement strategy, CP7 engagement is now largely integrated into the routes' standing BAU forums with their operators and other key stakeholders. This includes Alliance Boards, Joint Performance, and Partnership Boards.

We put specific focus on strengthening our communication pathways to better manage and mitigate performance-related impacts. Additional workshops with internal stakeholders, covering deliverable efficiencies within CP7 explored potential opportunities. This included briefings with representatives from Capital Delivery and the TA to discuss the application of High Street Principles and PACE/SPEED/MVP; and how they can be integrated and accounted for in CP7.

Maintaining established good practice, the region is committed to continued engagement with stakeholders in inclusive and transparent ways, targeted and well governed around the right stakeholder groups. The routes continue to develop their bespoke CP7 plans in close engagement and communication with their key stakeholders.

### Freight

Eastern's freight team has run workshops and presented at various forums, including the North of England forum. The regional team has attended level one (Director to Director) meetings, discussing plans for CP7 and the investment Eastern is making to deliver the 7.5% target. Stakeholders are signposted to relevant resources, people, and materials.

Additional presentations in response to the DD were undertaken at level one meetings involving freight operators and the Caledonian Sleeper. We continue to engage and collaborate with our freight community to identify opportunities to maximise freight paths and meet our freight growth targets.

### **Train Operating Company (TOC)**

Eastern's performance teams run regular bilateral performance forums with our train operators. This creates an opportunity to raise and discuss risks and improvements to performance trajectories, including the impact of planned CP7 activities.

Following DD, continued engagement has developed understanding about the impact of operator and NR activities on our performance trajectory, further informing our response and plan. All operators are engaged and agree we should be working to targets that are challenging but realistic.

### **Supply Chain**

Eastern region is currently in the procurement cycle, with the Invitation to Tender for the CP7 Eastern Routes Partnership Framework issued in July, and procurement events for the remaining CP7 frameworks follow later this year. During this period, supply chain engagement has continued where appropriate, including presentations to RIA in July with a CP7 overview, a chance for suppliers to ask questions about our CP7 aspirations; market engagement activities on our High Street Principles routes to market; and our regular quarterly updates across the region.

## **10. Other relevant information for our response**

### **Outcomes**

Our CP7 plans and targeted outcomes are ambitious. There is significant uncertainty around CP7, in particular the financial and economic pressures that create additional risk to delivering our outcomes. For example, in response to ORR's DD, we identified additional costs that we still need to be reflected in our plans, which are currently included as an overlay. When these additional costs are included, this will impact on the activity we are able to deliver in CP7. We must make difficult choices about how we manage the associated risks to our plans but we remain committed to providing the best possible outcomes for passengers, freight, and taxpayers. Flexibility in the regulatory framework must recognise the need to balance activity and outcomes across our plans.

We are reviewing the implications of the financial pressures post-SBP on our stated outcomes.

### **Income**

We have reviewed our CP7 income forecasts as part of the development of our DD response, which has meant a £28m increase.

Access charging income reflects the draft price lists and our latest view of our traffic forecasts for CP7. We note this is £99m higher than our SBP based on the latest traffic forecasting assumptions and charging rates which are assumed to increase in real terms between CP6 and CP7, of which



£75m is Variable Track Access Charges (VTAC). Our managed stations QX income and Long Term Charge forecasts have also increased, but we assume that increases in income from DfT and TS contracted train operators are offset by a reduction in FTAC to align to the Statement of Funds Available (SoFA).

Combined Schedule 4 and associated access charge supplements have been revised based on the latest assumptions and workbanks. This has resulted in a £45m increase to our total income figures.

Other income is higher than the SBP by £2m. We see an £8m increased stretch on our Property Income expectation. Within Eastern our sales plan for CP7 continues to mature to develop a robust programme of sales. We are working towards the additional £8m stretch by anticipating further revenue from new opportunities currently under review, windfalls and an element of slippage from the end of CP6 pipeline. This is partially offset by the removal of TOC insurance income in CP7 (£6m).

### **Schedule 8**

As discussed in our overall response, we do not support ORR's decision to not fully implement the lower Network Rail Schedule 8 Payment Rates at the start of CP7. We believe the new proposal (average 45% reduction in CP7 rate compared to CP6) is not appropriate as it does not reflect the latest empirical evidence and economic best practice, resulting in train operators being overcompensated by delays caused by Network Rail. We are not clear on ORR's justification for this proposal nor on how ORR have accounted for the risks of defunding vital infrastructure works that would arise from the overpayment to train operators as a result of unrealistic benchmarks and unjustified payment rates. Therefore, we think that the full reduction (75%) should be applied from the start of CP7.

### **Inflation**

Increases in inflation forecasts since the start of the year mean that the cost of our CP7 plan is significantly higher than we assumed in our SBP (£1.5bn higher across England and Wales using May 2023 Bank of England forecasts). For Eastern, recent forecasts increase the cost of our plan by £0.5bn in cash terms. Whilst we have not had time to reflect the August 2023 Bank of England inflation forecasts in our region response, the forecasts have decreased marginally. We set out the high-level assessment of the impact of this latest forecast on our CP7 plans in our overall NR response.

Our overall NR response explains how we seek to balance funding pressures, including inflation, across our CP7 plans, such as moving to the risk adjusted plan. We will continue to monitor inflation as we move towards the delivery plan as it is a major risk to the delivery of our CP7 plans.

### **Operations**

Spend on operations for CP7 is broadly in line with CP6. Incremental spend required for scope changes includes the impact of TRU (signalling and Electrical Control (ECRO)), trespass and



vandalism security (including suicide prevention). This is offset by a reduction in costs where CP6 costs are not repeated in CP7 and efficiencies.

The new National Rostering Principles secured as part of the settlement of the industrial action include significant productivity elements which will reduce costs, including agreements that will reduce turnover of signallers.

The headwinds in CP7 are largely the requirement to resource to comply with the new fatigue standard, and to resource to comply with continued work to professionalise operations competency, with a focus on quality assurance of competence.

**Operations & support costs breakdown**



We have planned on the assumption that our pre-efficient CP7 baseline will be broadly in line with our forecast CP6 exit position, with adjustments to exclude minor one-off costs that will not perpetuate in CP7. This equates to **c.£1,187m\*** of operational expenditure and **c.£381m\*** of support expenditure. Provision has then been made for additional requirements in CP7 such as the impact of major enhancement schemes such as TRU, additional compliance requirements around areas including environment and sustainability, and fatigue standards.

**Financial risk profile**

We reviewed the drivers impacting our financial risk that could potentially cause a deviation from our base P50 plan. At the lower end of the range (P5), we expect minimal changes to the forecast in our SBP with the exception of Schedule 8 income, due to ORR proposals to reduce rates by up to 45%.

At the higher end of the range (P95) we increased our risk profiles marginally following the move to the risk adjusted plan. The key drivers here relate to:

- The deliverability of our CP7 forecast efficiencies; lower renewals expenditure and further deferrals from Year 5 make our stretching efficiency targets increasingly difficult to achieve
- We note the pressures to further reduce our cost base in light of increased inflationary pressures and requirement to increase core asset renewal expenditure nationally. We recognise the related increased risk in our plan.

Area of plan	Explanation of key drivers	Range (£m)
OPEX	<ul style="list-style-type: none"> <li>- Deliverability of CP7 forecast efficiencies</li> <li>- Operational impacts of new assets/systems</li> <li>- Impact of changes in traffic</li> </ul>	<p>(151) 503</p> 
Income	<ul style="list-style-type: none"> <li>- Risk of variances to schedule 4 cost forecasts</li> <li>- Fluctuations in variable and property income</li> <li>- Impact in changes in traffic</li> </ul>	<p>(198) 198</p> 

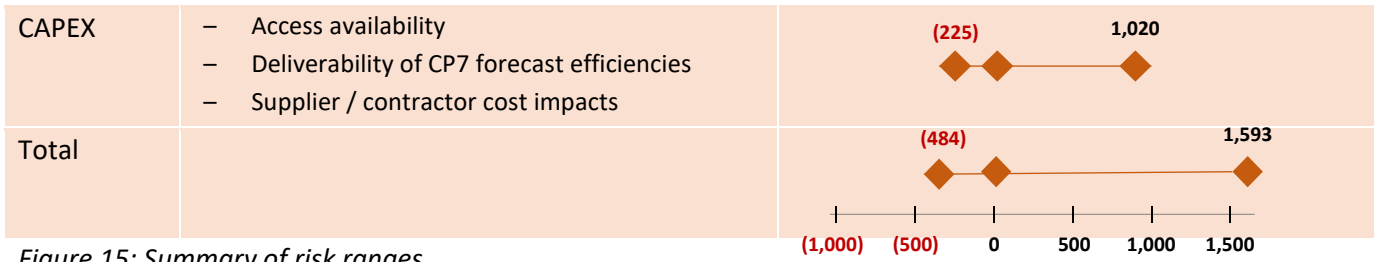


Figure 15: Summary of risk ranges

## Annex A: Updated financials and outcomes

£m in 2023/24 prices	Direct costs			Allocated costs			Total costs		
	CP6 (RF3)	SBP	DD Response	CP6 (RF3)	SBP	DD Response	CP6 (RF3)	SBP	DD Response
Operations	1,156	1,075	1,195	66	0	0	1,222	1,075	1,195
Maintenance	3,372	3,390	3,465	138	183	175	3,511	3,573	3,639
Support	272	414	396	989	1,066	1,022	1,261	1,480	1,418
Industry costs and rates*	0	0	0	561	646	649	561	646	649
Electricity for traction (EC4T)	0	0	0	850	1,266	1,382	850	1,266	1,382
<b>Total operating expenditure (excl. EC4T)</b>	<b>4,800</b>	<b>4,879</b>	<b>5,056</b>	<b>1,753</b>	<b>1,894</b>	<b>1,845</b>	<b>6,554</b>	<b>6,774</b>	<b>6,901</b>
Renewals	5,041	4,627	4,315	211	174	152	5,251	4,802	4,467
Other capital expenditure	133	104	-113	502	702	588	635	806	475
<b>Total capital expenditure</b>	<b>5,173</b>	<b>4,731</b>	<b>4,202</b>	<b>713</b>	<b>876</b>	<b>740</b>	<b>5,886</b>	<b>5,607</b>	<b>4,942</b>
ETCS enablers	0	0	0	0	259	259	0	259	259
Risk funding	0	0	0	0	0	157	0	0	157
<b>Total Expenditure (excl. EC4T)</b>	<b>9,974</b>	<b>9,611</b>	<b>9,258</b>	<b>2,466</b>	<b>3,029</b>	<b>3,002</b>	<b>12,440</b>	<b>12,640</b>	<b>12,259</b>
Input prices moved to risk funding			256			25			281

\* Excluding BTP

£m in 2023/24 prices	Direct costs			Allocated costs			Total costs		
	CP6 (RF3)	SBP	DD Response	CP6 (RF3)	SBP	DD Response	CP6 (RF3)	SBP	DD Response
Passenger access charges (VUC, EAUC, FTAC)	-1,673	-1,538	-1,502	-81	-44	-44	-1,754	-1,582	-1,546
Stations and Depots: Station LTC, Stations Lease, QX and Depots	-477	-652	-689	0	0	0	-478	-652	-689
Freight and open access track access charges	-214	-205	-229	0	0	0	-215	-205	-229
Electricity for Traction (EC4T)	0	0	0	-859	-1,299	-1,382	-859	-1,299	-1,382
Property and other income	-221	-283	-286	-59	-147	-92	-279	-430	-378
Schedule 4 access charge supplement	-337	-546	-306	-169	-155	-172	-506	-701	-477
Schedule 4 and 8	696	618	332	9	107	172	705	725	504
Network grant	0	0	0	-9,913	-9,795	-9,444	-9,913	-9,795	-9,444
<b>Total Income</b>	<b>-2,227</b>	<b>-2,606</b>	<b>-2,679</b>	<b>-11,072</b>	<b>-11,332</b>	<b>-10,962</b>	<b>-13,299</b>	<b>-13,938</b>	<b>-13,641</b>
<b>Total Income (excl. EC4T)</b>	<b>-2,227</b>	<b>-2,606</b>	<b>-2,679</b>	<b>-10,213</b>	<b>-10,034</b>	<b>-9,581</b>	<b>-12,440</b>	<b>-12,640</b>	<b>-12,259</b>

Strategic theme	Measures	Eastern																
		Proposed Regulatory Baseline																
		2024/25			2025/26			2026/27			2027/28			2028/29				
		SBP	DD assumption	DD response	SBP	DD assumption	DD response	SBP	DD assumption	DD response	SBP	DD assumption	DD response	SBP	DD assumption	DD response		
Train Service Delivery	Passenger On Time	To be provided in performance addendum by 14 September																
	Passenger Cancellations	To be provided in performance addendum by 14 September																
	Freight cancellations	To be provided in performance addendum by 14 September																
	Composite sustainability index (CP7 change % pts)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-2.9%	-2.9%	-2.0%
Efficiencies*	Opex (£m)	20	20	21	40	40	42	61	61	64	82	82	86	103	103	109		
	Capex (£m)	26	26	25	83	83	81	102	102	107	106	106	113	115	115	109		
	FPM (£m)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sustainable Growth	Carbon emissions - scope 1 & 2 (CP7 change % pts)	-3.8%	-3.8%	-3.8%	-7.6%	-7.6%	-7.6%	-12.4%	-12.4%	-12.4%	-16.2%	-16.2%	-16.2%	-20.0%	-20.0%	-20.0%		
	Biodiversity units net gain (CP7 change % pts)	1.0%	1.0%	1.0%	1.9%	1.9%	1.9%	2.9%	2.9%	2.9%	3.8%	3.8%	3.8%	4.8%	4.8%	4.8%		
	Freight growth (net tonne kilometres)	1.5%	1.5%	1.5%	3.0%	3.0%	3.0%	4.5%	4.5%	4.5%	6.0%	6.0%	6.0%	7.5%	7.5%	7.5%		

\* Please note that ORR's draft determination combines region-delivered efficiencies with an allocation of national function efficiencies. We only show in this table direct efficiencies, consistent with the SBP. ORR accept our England & Wales efficiency assumptions but do not distinguish between opex and capex.

\* DD response for Passenger On Time is the P50 position of our modelled outputs, which is effectively the bottom of our range in the SBP (as requested by P&R)

\* Metrics shown for CP6 Y5 are the Eastern scorecard targets

## Annex B: Sign-off

Job Title	Name	Signature	Date
Region Finance Director	James Drury (Regional Finance Dir. on behalf of RMD)		31/08/23