

May 2019

Eurostar response to HS1's draft CP3 5 Year Asset Management Statement (5YAMS)

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INSPIRER DE VRAIES RENCONTRES

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The draft 5YAMS proposes extraordinary price increases and risk transfers which may have a material long-term effect on the development of the railway. Such proposals require a convincing evidential case. It is Eurostar’s view that **the case has not been made** and many questions remain. We cannot start with a presumption of approval; **further independent analysis is likely to be required**. In addition, the proposals raise a number of long-term policy questions which need to be discussed with Government in parallel with the Periodic Review (PR) process. It would be wrong for the PR outcomes to pre-judge a policy debate, if this is not complete.

Strategic Context
[Confidential] track infrastructure charges continue to inflate above inflation.
[Confidential] This threatens the sustainability of the system and redoubles the need for robust control. In this context HS1- already the most expensive European HSL – proposes to accelerate this adverse trend much more rapidly than anywhere else.

Efficiency
In 2009, 2013 and 2018 external reviews found HS1 to be significantly less efficient than benchmarks. HS1’s proposed O&M efficiency does little to acknowledge or close this gap. It is less than half the level of PR18 for NRIL or in the “Rebel” HSR OMR effectiveness report. The differences are not explained. The efficiency overlays assumed for renewals in Control Period 2 (CP2) have been removed altogether. [Confidential]. The case for HS1 to achieve less than those who fund it is not made.

Risk and Incentives
The Concession is not a finance asset. HS1 has assumed certain risks. There is a pattern in the 5YAMS that risks are either transferred or filled out with layers of contingency. Examples include seeking to escape CP2 outturn in blanket fashion (vs determination), additional costs to de-risk O&M, levels of contingency in renewals, and transfers on performance regime and market test costs. A fundamental question is posed as to HS1’s incentives to get its forecasts right.

Renewals (incl. stations)
Very significant increases are based on forecasts, which have low levels of “accuracy of asset information” (Bechtel). Over 40% of costs are fees and contingency; 60% lie beyond the current Concession. The efficiency overlay is dropped and renewals (and O&M) appear to be accelerated by assumptions of future usage which are not substantiated. The categorisation and funding of ERTMS needs review.

Annuity and LTC Funding
The Escrow accounts result in excessive and inefficient tying up of capital. We agree with the principle of Escrow but translating 40 year “look ahead” to 40 year “pay ahead” drives inefficiency and inequity. We believe the approach to renewals requires fundamental review. We have proposed an alternative option and are happy to consider others.

Stations
Double digit increases are forecast in 40 year renewals and LTC at a time when HS1 has not delivered a 5 year look ahead for just QX. This provides an inadequate basis for future budgeting (both scope and confidence). In addition there are questions of allocation both between TOCs and between the Railway Undertakings and the retail estate which is not contributing to its long term costs despite HS1 earning an operating margin of 60% on these.

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Key Term	Description	Key Term	Description
5YAMS	5 Year Asset Management Statement	LTC	Long Term Charge
CA	Concession Agreement	NR(HS)	Network Rail (High Speed)
CAGR	Compounded Annual Growth Rate	NRIL	Network Rail Infrastructure Limited
CEPA	Cambridge Economic Policy Associates	O&M	Operations and Maintenance
CP	Control Period	OCS	Overhead Contact System
CPI	Consumer Price Index	OMR	Operations, Maintenance and Renewal
CTRL	Channel Tunnel Rail Link	OMRC	Operations, Maintenance and Renewal Charge
DfT	Department for Transport	ORR	Office of Rail and Road
EC4T	Electric Current for Traction	PR	Periodic Review
EIL	Eurostar International Limited	QX	Qualifying Expenditure
ERTMS	European Railway Traffic Management System	RPI	Retail Price Index
GRIP	Governance for Railway Investment Projects	RU	Railway Undertaking
GSM-R	Global System for Mobile Communications – Railway	S&P	Standard & Poor, a credit rating agency
HMG	Her Majesty's Government	SPI	St Pancras International
HS1	High Speed 1	TOC	Train Operating Company
HSR	High Speed Rail	TSI	Technical Specification for Interoperability
IRC	Investment Recovery Charge	UIC	International Union of Railways

1. Introduction

1.1. The strategic context of this review

This review matters.

Eurostar operates in a competitive multi-modal travel market, which includes airlines. The majority of travel with Eurostar is discretionary. To secure the sale we need to be attractive on price, destination and service. In recent years the business has faced significant pressures, with external events [Confidential].

In such an operating context, there is more emphasis than ever on control of costs to retain the competitiveness of the business and our capacity to reinvest in service development [Confidential].

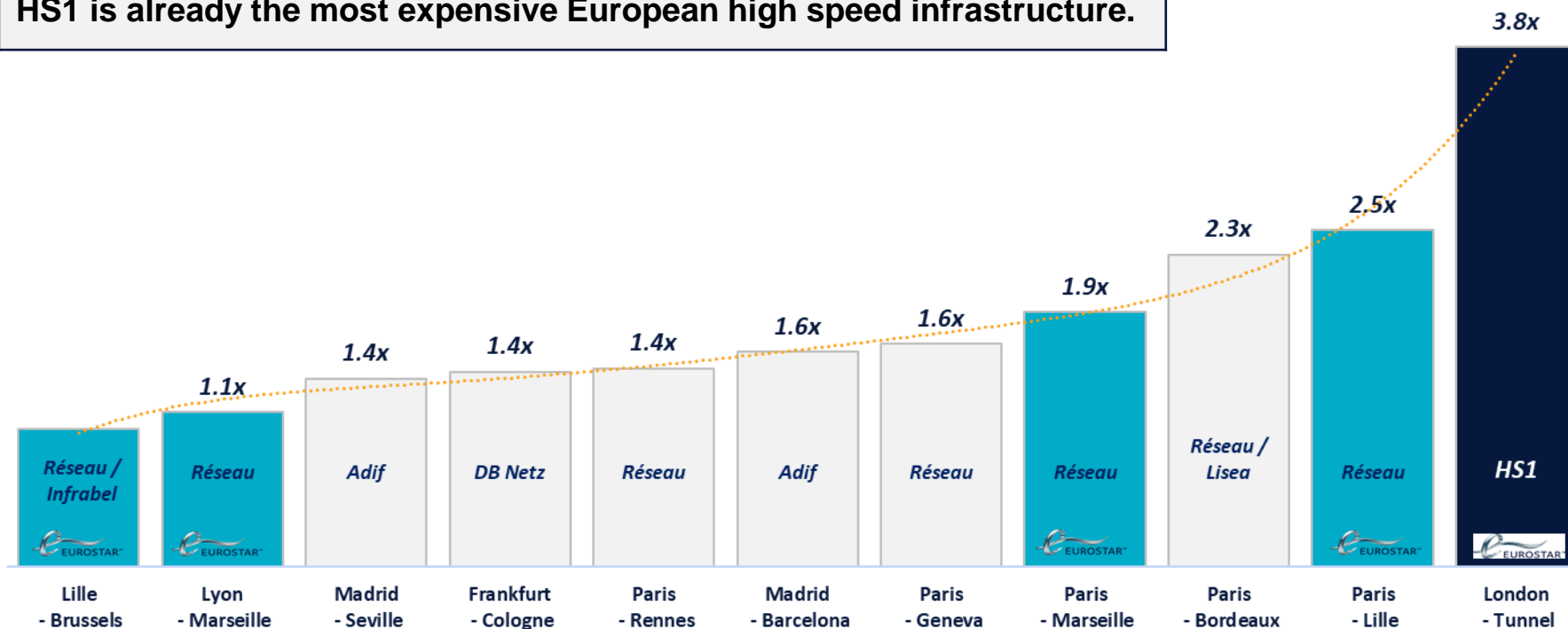
However, controllable costs are [Confidential]% of our overall cost base. Infrastructure costs represent more than [Confidential]% of Eurostar's cost base and, since 2014, the per train track charges have been rising at an annual average *real* rate of nearly 6%. HS1 accounts for over [Confidential]% of the total Eurostar cost base and, on a per train km basis, HS1 is already the most expensive infrastructure we use (excluding the Channel Tunnel); further increases in its charges mean that operators will have less money to invest in developments, such as improved station facilities and more frequent services, which benefit both passengers and HS1; this in turn potentially puts the network into a spiral of declining services and rising 'per train' charges, transforming HS1 firstly into a "railway for the rich" and then no railway at all. It is difficult to see how this would attract new entrants – domestic or international – onto the line.

Eurostar accepts the need for a sustainable funding package for the infrastructure – our long term investments depend on it. However, we risk a strategic squeeze. Year-on-year real terms increases in infrastructure costs cannot be compensated by controllable cost efficiencies within the business at a ratio of [Confidential]. **There is a risk that an abundance of caution in pursuit of infrastructure sustainability stifles near-term investment and in turn renders the same system unsustainable from the perspective of passenger affordability. It is imperative that costs are properly assessed, evidenced and efficient.**

1. Introduction

1.2. The HS1 periodic review is of particular importance

HS1 is already the most expensive European high speed infrastructure.



Source: UIC

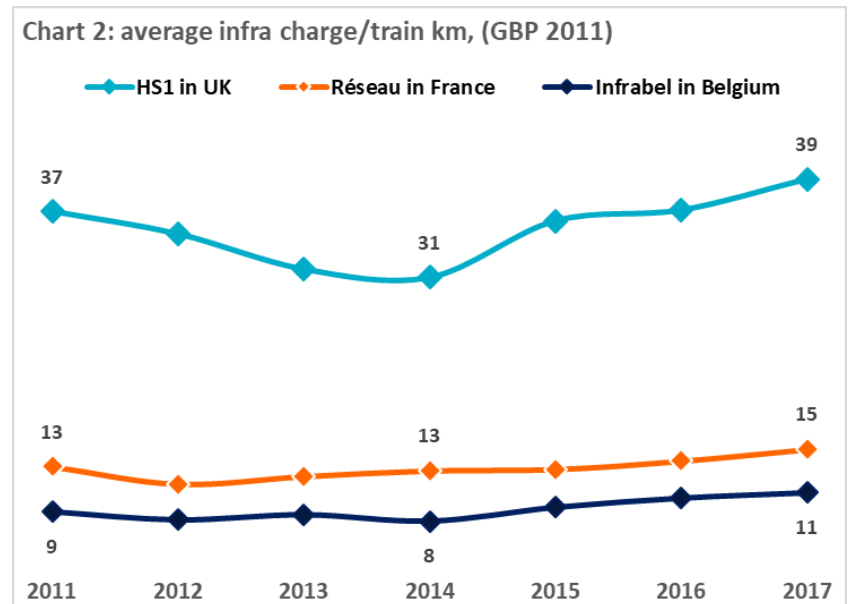
The chart above, based on an International Union of Railways (UIC) report and EIL's accounts, is a snapshot of the relative 2017 track access charges per km of a number of high speed lines in Europe, including the lines used by Eurostar.

On a per km basis, HS1 from London to the Channel Tunnel is nearly four times as expensive as the line between Lille and Brussels, the least expensive high speed line used by Eurostar and 55% more costly than the line between Lille and Paris, the most expensive high speed line used by Eurostar in France. The proposed increase in OMRC in the draft 5YAMS would magnify this already marked cost differential.

1. Introduction

1.3. The “strategic squeeze”. Is this a sustainable railway?

All infrastructure is inflating at a rate the market cannot sustain. On HS1 this effect would accelerate markedly from CP2 to CP3 if the proposed charges were implemented. HS1 is becoming not just the most expensive but also the least predictable. This kind of step change in forecast costs after just two control periods raises serious questions about confidence in forecasting or asset knowledge – and the incentives to get it right.



Sources: EIL accounts and timetables

Chart 1 [Confidential]

Chart 2 shows that on a per train km basis, HS1 is the most expensive high speed railway used by Eurostar. Our own analysis shows that if the draft HS1 CP3 proposals were implemented, **HS1 would be approximately three times as expensive as SNCF Réseau in France.**

1. Introduction

1.4. The current charging proposals are extraordinary

Infrastructure is intended to be a long-term predictable asset. Consequently, we do not understand the basis for large changes in the charges from one CP to the next.

Units = GBP Feb 2018	CP2 Submission	CP2 Outturn	CP3 submission
NR(HS) O&M	213m	213m —	205m 4% ↓
HS1 own costs	61m	66m 8% ↑	60m 1% ↓
NR(HS) and HS1 O&M Costs	274m	279m 2% ↑	265m 3% ↓
Pass thru' costs	79m	85m 8% ↑	95m 21%↑
Sub total	353m	364m 3% ↑	361m 2% ↑
EC4T	79m	91m 14%↑	115m 46%↑
Sub total	432m	455m 5% ↑	476m 10%↑
Route renewals in CP3	16.3m	n/a n/a	82.9m 409%↑
Forty year route renewals to 2060	781m	n/a n/a	1,525m 409%↑
Route renewals annuity	12.6m	n/a n/a	37.9m 201%↑
International OMRC £ per minute	54.07		78.95 46%↑
Stations renewals in CP3	11.8m	n/a n/a	18.8m 59%↑
Forty year stations renewals to 2060	358m	n/a n/a	422m 18%↑
Stations renewals LTC	6.5m	n/a n/a	9.3m 42%↑
Route escrow interest	5.9m	3.9m 34%↓	n/a n/a
Stations escrow interest	3.4m	2.6m 44%↓	

- The CP2 outturn is forecast to exceed the submission in all areas except one, with, notably, **controllable costs being 2% higher**, due to HS1's own costs exceeding its submission by 7%;
- **The projections for CP3 show real terms increases – mostly double digit percentages** - in all categories except controllable O&M costs; whilst we welcome the small reduction in these costs, it is swamped by the large rises in the other cost categories;
- **The proposed OMRC for international services is up 46%** on CP2, principally due to very large increases in the renewals annuities, reflecting the sharp rises in forecast renewals expenditure over the forty years to March 2060.

1. Introduction

1.5. The main themes of the draft 5YAMS

The Concession Agreement requires that HS1 is to fulfil its Asset Stewardship Purpose:

“in accordance with best practice and in a timely, efficient and economical manner”

The forewords and executive summaries of the draft 5YAMS documents state that HS1:

“will always seek to challenge our suppliers and deliver efficiently for our customers” and that the “proposals are ambitious, respond to operators’ needs so that they can most effectively serve passengers”

The scale of proposed increases, and their potential strategic significance, redouble the need to ensure that the proposals reflect the ambitions of the Concession Agreement and key PR documents relating to “best practice”, “challenge” and ambition.

Eurostar has reviewed the draft 5YAMS documents through this “lens”. We find that, in terms of efficiency the proposals are cautious rather than ambitious. Some of the biggest increases are built upon the least robust forecasting. And there appears to be a consistent pattern of excessive contingency and risk transfer. There are also fundamental questions relating to the incentives on HS1 to do otherwise.

Overall, the document raises as many questions as it answers. We believe there is the need for much further independent analysis.

Our detailed response is structured around the following themes:

- The proposed **efficiency** savings are insufficiently ambitious compared to a range of other benchmarks;
- There is a consistent theme of **risk transfer** by HS1 and overlaying excessive contingency on those risks that remain;
- There is a lack of clear **incentives** on HS1 to “get it right”;
- The **forecast renewals costs are so uncertain** as to raise questions of confidence and fairness;
- The **renewals methodology is fundamentally flawed**;
- In addition to uncertainties of forecasting, the **stations proposals also perpetuate unfairness** (and potential cross-subsidy) in allocations.

1. Introduction

1.6. Progressive assurance and supplemental analysis beyond the 5YAMS

The effectiveness of the Periodic Review depends on the underlying principle of “progressive assurance” whereby the draft 5YAMS is discussed with stakeholders as it evolves. The 5YAMS document becomes the principal input to the determination, such that the conclusions and outcomes of the determination are defined relative to it.

HS1 has engaged with all stakeholders, including Eurostar throughout the PR19 process. Until late 2018 this was broadly on “methodology and approach”; latterly it started to include indicative costings at Eurostar’s request. On 28th February 2019, HS1 produced its draft 5YAMS which Eurostar has now had an opportunity to review. We have observed that:

- Uncertainty in the numbers continued to late in the process
 - the track and stations LTC charging models were only released on 2 April, more than a month after the draft 5YAMS document and 8 days before the original 10 April deadline for consultation replies; and
 - as late as January there was confusion over CP3 route renewals, with estimates shifting between £80 and £150m.
- Whilst Eurostar and others have raised points and participated in the stakeholder meetings, we have seen little evidence that the draft 5YAMS has materially evolved in the direction of these points about, for example, risk transfer, forecasting confidence. Broadly it restates the indicative numbers and positions first produced (the approach to the capacity reservation charge being a notable exception).
- Our understanding is that the general level of submission response to the draft 5YAMS is broadly comparable with that submitted by Eurostar on 10 April. This was (for reasons well-documented) superficial and can be contrasted with that which we are producing now. If other responses are of a similar standard to the 10th April, then the consultation process to date has lacked an equivalent level of external scrutiny.
- To date, compared to the NRIL PR18 process, we have seen very little external analysis commissioned by the ORR, though ORR may still intend to commission

The draft 5YAMS remains a critical document but does not provide sufficient evidence to support the level of increases proposed. Eurostar’s view is **that this draft 5YAMS cannot be allowed to anchor the discussion and subsequent determination**. There remains scope for HS1 to evolve the document significantly to address and answer questions such as those raised in this response but **the ORR and DfT must be prepared to supplement this with further independent review**. The following slide illustrates the way in which the NRIL progressive assurance process was supplemented with further analysis.

Overall, the increases envisaged within the charging proposals demand a commensurate level of confidence in the analysis that underpins them and the draft 5YAMS does not in itself deliver this. There must be scope for radical adjustment. Increases of this order should only be allowed if they are properly evidenced rather than the burden being placed on operators to disprove them.

1. Introduction

1.7 Supplementary analysis commissioned for NRIL PR18

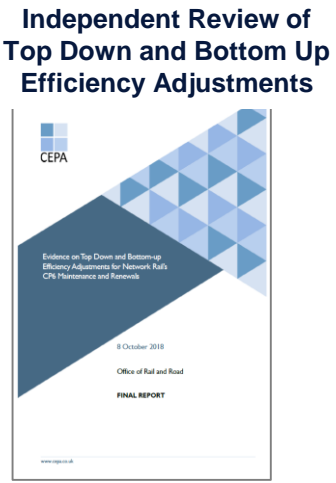
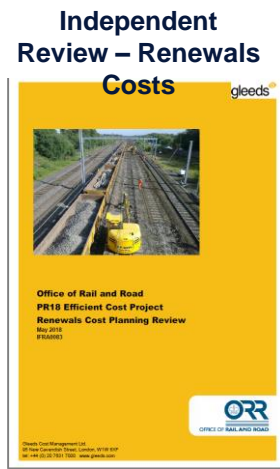
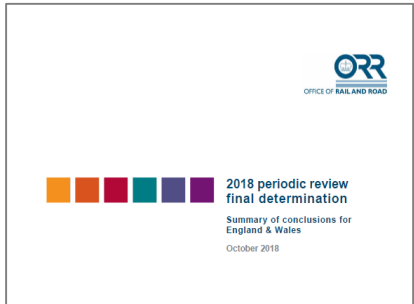
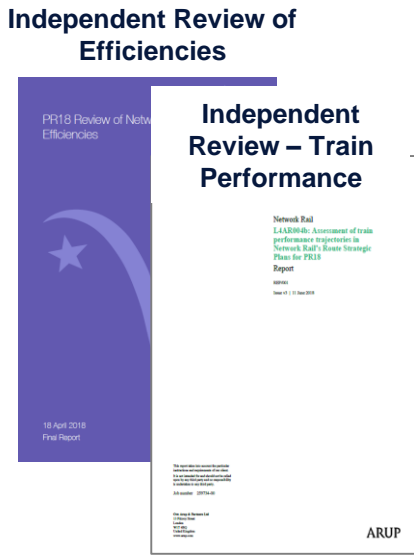


Figure 1.3: The final determination suite (includes weblinks)

PR18 final determination overview document		
England & Wales summary	PR18 draft determination consultation – summary of comments and our response	
Scotland summary (and settlement details)	Supplementary documents	
Settlement documents	Scorecards and requirements	
FNPO route	Health & safety	
System Operator	Review of NR's proposed costs	
England & Wales	Other single till income	
	Anglia route	Stakeholder engagement
	LNE & EM route	Financial framework
	LNW route	Review of network licence conclusions from consultation
	South East route	Overview of charges & incentives decisions
	Wales route	Infrastructure cost charges conclusions
	Wessex route	Variable usage charge conclusions
	Western route	
Other documents		
Glossary	Managing Change Policy	
Consultancy & reporter studies	Grading of Network Rail's route and System Operator strategic plans for CP6	



2. Efficiencies

Overview

This section considers efficiencies. We make the following key points:

- 2.1** HS1's efficiency proposals are not ambitious.
- 2.2** HS1's efficiency proposals fall short of benchmarks
- 2.3** We would expect to see more ambitious savings on O&M pass through costs
- 2.4** EC4T cost reflects poor design with limited incentives to improve
- 2.5** Limited evidence of continuous improvement in terms of efficiency savings
- 2.6** Efficiency assumption has been removed from the station renewals forecast

2. Efficiencies

2.1 HS1's efficiency proposals are not ambitious

In the foreword to each of the draft route and stations 5YAMS documents, HS1 states:

“We are not complacent and will always seek to challenge our suppliers and deliver efficiently for our customers”

As a statement of intent, Eurostar welcomes this, and also this statement on page 45 of the draft 5YAMS:

“[CP3] costs have been subject to a robust process of internal review and challenge”

However, despite this and other similar statements (the word “robust” occurs 20 times across the two documents), we feel that the **proposed efficiencies and cost savings fall far short of this intent**. For example:

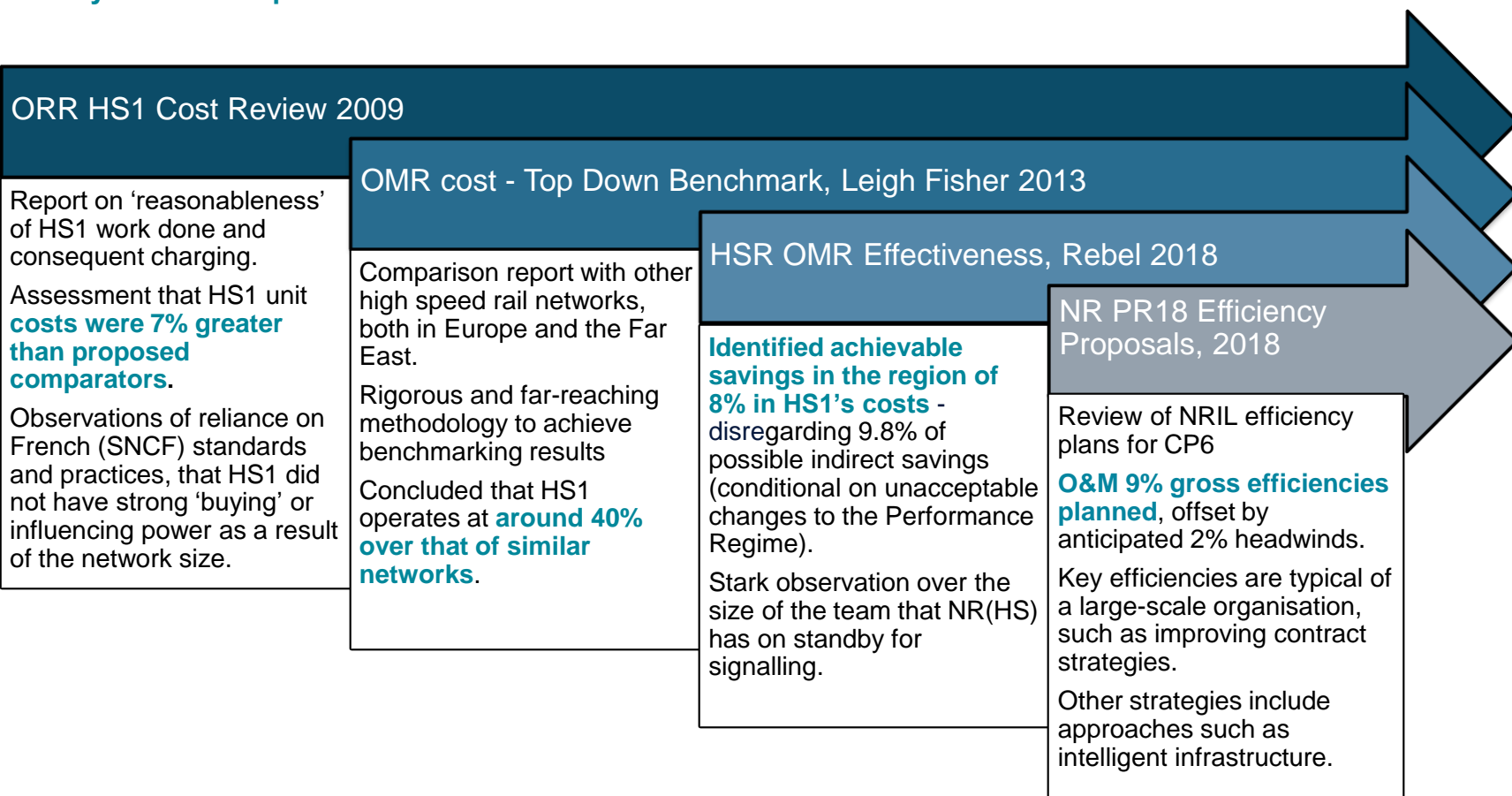
- HS1's own route costs are proposed to decline by solely 1% in CP3 compared to CP2.
- We would expect that after nearly a decade of operating experience, a **best practice infrastructure manager** operating in a *“timely, efficient and economic manner”*, would be able to achieve greater efficiencies than are currently being achieved and are proposed going forward.
- We note that the renewals forecasts for route and stations **have removed the explicit efficiency overlays** used in CP2, compounding the double digit rises in these forecasts and leading, in their own right, to an annual real increase of £4.3m in the proposed route annuity and stations long term charges.
- We have also received little or no methodology or analysis to support the final proposals. HS1 say that it will commission a further study to challenge the efficiency assumptions in the Effectiveness Study (Rebel report, 2018), but this **won't report until January 2020, after the final determination**. This is an insufficient response to independent analysis that has shown a significant efficiency gap since 2009.
- It is disappointing that **no wider view of developments in the UK High Speed Rail (HSR) sector** has been taken into account, particularly in recognising the potential efficiencies that major high speed rail projects (such as HS2) will bring – for example cost and best-practice sharing, increased supply chain and economies of scale. Additionally we would expect to see some benefit from new technologies such as Artificial Intelligence and greater remote monitoring.

2. Efficiencies

2.2 HS1's efficiency proposals fall short of benchmarks

HS1 is more expensive than other European infrastructure managers, and is proposing efficiency improvements much lower than other HSR infrastructure managers and NRIL.

For the controllable route O&M costs, HS1 are proposing a 3% reduction on the CP2 costs. This seems unambitious - **there is a consistent view that O&M costs for HS1 are currently significantly higher than other comparator railways and HS1's planned efficiencies are lower.**



2. Efficiencies

2.2 HS1's efficiency proposals fall short of benchmarks

HS1 is proposing annual maintenance cost reductions much lower than other rail infrastructure managers, NRIL and other regulated sectors.

- In PR18, ORR appointed CEPA to review and potentially refine its assessment of the scope for efficiency in NRIL operations, maintenance and renewal costs in CP6. CEPA produced a working note with:
 - An assessment of top-down evidence that can contribute to assessing efficiency adjustments for Network Rail's CP6 assessment drawing on case study evidence of transformational change in other industries;
 - A bottom up review of the scope for efficiency in maintenance and renewals drawing on information provided to ORR by Network Rail and ORR's analysis of that.
- The CEPA examples show that organisational transformation can lead to significant efficiencies in maintenance, renewals, operations and support expenditure. This extract summarises quantified estimates of maintenance efficiencies:

Entity	Annual maintenance cost reduction
Tube lines	11.2%
National Grid	1.9%
SSE	0.9%
NRIL CP6	2.0%
NR(HS) CP3	1.4%

This value should be considered in light of additional savings being made in administration OPEX

NR(HS) maintenance efficiencies lag behind most other comparators

Source: CEPA and EIL

- For further comparison, **Highways England reported a 6.4% efficiency for 2017-18** as part of a consistent efficiency target over the next three years.

2. Efficiencies

2.2 HS1 category costs appear consistently higher than NRIL

A simple comparison of HS1 and NRIL costs on a route mile basis suggests HS1 is consistently more expensive than NRIL in virtually all maintenance categories.

It is not apparent that this can be explained by differences in assets between a high speed and a classic railway, especially bearing in mind that HS1 is much more modern than the mainline network, and has none of the associated Victorian legacy issues.

Despite starting with lower costs, NRIL is delivering double the proposed efficiencies of HS1.

Cost per route mile /£k			
Maintenance Activity	NRIL	NR(HS)	Difference
Overall	279	519	86%
Track	55	71	29%
S&T	13	84	546%
Civils	18	32	78%
OCS (& 3 rd rail)	26	26	Parity

This analysis is not definitive, but indicates a potential issue which we feel should be examined in detail. To date HS1 has not presented any data that would allow a more definitive view.

In the absence of more relevant data, we feel that the case for the draft 5YAMS proposals is poorly evidenced. This reinforces our view that ORR needs to commission its own detailed independent studies.

2. Efficiencies

2.3 Lack of ambition for O&M pass through costs

Efficiency – Pass through costs

Pass through costs are a gauge of HS1’s intent to work on behalf of its customers. In CP2 there have been positive examples of this – notably a robust engagement and push back by HS1 on business rate rises as well as significant savings on like-for-like insurance costs.

It is, therefore, disappointing that this historic approach is not reflected in the ambitions in the draft 5YAMS.

Table 47 of the draft 5YAMS (see below) shows the pass through costs remaining the same as or slightly greater than CP2 exit in real terms. Non-traction and insurance are assumed to continue through CP3 at the same real rates as CP2.

Rather than simply assuming RPI increases, we expect HS1 to set more ambitious targets and to drive real cost reductions.

Table 47: Pass through costs forecast (£m, February 2018 prices)

	20/21	21/22	22/23	23/24	24/25	Total	CP3 exit v CP2 exit
Non-traction electricity	1.8	1.8	1.8	1.8	1.8	9.0	0.0
Insurance	3.0	3.0	3.0	3.0	3.0	15.0	+0.1
UKPNS O&M and renewals	5.9	5.8	5.8	5.8	5.8	29.2	+0.5
Rates	8.4	8.4	8.4	8.4	8.4	42.2	+0.0
Total	19.1	19.1	19.1	19.1	19.1	95.4	+0.6

Our view is that HS1 should put together more ambitious savings for the pass through costs. We are willing to discuss a ‘pain share/gain share’ incentivisation mechanism.

2. Efficiencies

2.4 EC4T cost reflect poor design with limited incentives to improve

Efficiency – EC4T

The principal concerns are:

- Operator charges are based on transmission losses of up to 30% which represents design weaknesses for which we were not responsible and cannot control.
 - At 17%, the modelled transmission losses on HS1 are higher than on any of Eurostar’s other infrastructures and in some cases, nearly or more than double. This is primarily driven by modelled losses from two of the three sub-stations being in excess of 30%.
 - What makes this very problematic for train operators is that the majority of traction energy costs are now driven by non-commodity charges that are directly driven by the amount of electricity consumed on the infrastructure, so the already high 17% of modelled transmission losses also generate an additional 17% of constantly-increasing non-commodity charges.
 - Neither of these pass-through costs are within Eurostar’s remit to control and, whilst HS1 has worked to improve the partnership with UKPN, **there is limited incentive to address the underlying infrastructure issues, as the risk falls wholly on the train operators.**
- The specification reflects excess capacity driven by over-optimistic forecasts for which operators are now being charged. In part, the design represents resilience requirements occasioned by the needs of national grid connections which are of no interest or benefit to rail operators.
- There is a fundamental issue of sustainability, exacerbated by the very high-carbon UK energy mix. It is almost inconceivable that it will be acceptable to run with this level of transmission losses in any low-carbon future. The issue needs to be addressed and there is little incentive to do so whilst the problem can effectively be charged through to operators.

Comparative Eurostar energy mix

UK		France & ET		Belgium		Netherlands	
Natural Gas	63%	Nuclear	72%	Nuclear	52%	Wind Energy	100%
Nuclear	19%	Hydro	12%	Natural Gas	41%		
Coal	12%	Geo-thermal	7%	Coal	7%		
Other	4%	Wind	5%				
Renewable	3%	Solar	2%				
		Biomass	2%				

2. Efficiencies

2.5 Route renewals: CP2 efficiency stretch replaced by “international practice”

Efficiency – Efficiency Overlays

- Neither the route nor the stations renewals forecasts for CP3 include explicit efficiency overlays. For CP2 in the PR14 process, the following efficiency overlays were applied:
 - 0.5% per annum from 2020/21 onwards for route renewals;
 - 0.6% per annum from 2015/16 onwards for stations renewals.
- Repeating these assumptions for the CP3 forecasts leads to annual real reductions of £2.8m and £1.5m in the projected route renewals annuity and stations’ long term charges.
- **In other words, the absence of an explicit efficiency target in CP3 will cost the operators an extra £4.3m a year.**

Efficiency – Route Renewals

- For route renewals, HS1 “*challenged Bechtel to provide aggressive productivity assumptions in terms of how renewals would be delivered. **The proposed volumes and productivity rates are in line with international industry practice, which approximately triples the volumes traditionally achieved in the UK***” (p.102).
- We are now ten years into HS1’s management of the asset. In our view operators should not still be paying for HS1 to close the gap with its own identified international productivity standards. The charges should be rebased to assume these.
- **No further efficiencies seem to be assumed following the achievement of international industry practice;**

In the spirit of continuous improvement, we would expect a best practice infrastructure manager to have an ongoing programme of efficiency savings in place to the end of the forty year look ahead period.

2. Efficiencies

2.6 Station renewals: CP2 efficiency stretch replaced by “cost discipline”

Efficiency – Stations Renewals

- For stations renewals, in confirming the removal of the 0.6% p.a. efficiency assumption, HS1 state:
“While we recognise the need to stretch ourselves and chase efficiency improvements, there is limited evidence to support such an overlay that reduces the 40 year budget by approximately 25%.”
- In place of a stretching efficiency target, HS1 proposes a series of initiatives (improved project governance, an enhanced approach to asset management and driving ongoing improvement plans), which we would expect as a matter of course from a best practice operator, to *“deliver appropriate cost discipline now and into the future”*. [Reference to CA] No estimate of the cost reductions arising from the successful implementation of these initiatives is provided.
- Five years on from the DfT’s quasi-regulatory determination requiring it, HS1 has not produced a 5 year QX look forward budget. Without this we have little handle on performance vs budget, efficiency trends or even scope. This fundamentally undermines confidence in any 40 year forecast, regardless of efficiency overlay.
- It is unclear what the drivers and underlying assumptions are behind the additional spend. How much of these increases are due to additional traffic arising from the route 5YAMS assumptions? How much is from other traffic, e.g. Thameslink passengers?
- Instead there has been a **track record of rapidly rising QX costs** which suggests a lack of understanding and ineffective management of the asset (see chart to the right [chart confidential]).

Eurostar believe that station charges should simply be held flat (in nominal terms) until a basic understanding and control of costs has been demonstrated.

3. Risk and Incentives

Overview

This section considers HS1's approach to risk and incentives. We make the following key points:

- 3.1** The Draft 5YAMS starts with CP2 outturn
- 3.2** Examples where HS1 seek to transfer cost
- 3.3** HS1 passes through a premium to hedge its own efficiency risk
- 3.4** Revised Performance Thresholds do not incentivise improved performance
- 3.5** Build-up of contingency and fees
- 3.6** Weak risk exposure to the consequences of poor forecasting

3. Risk and Incentives

3.1 The Draft 5YAMS starts with CP2 outturn

CP2 outturn

HS1 is seeking to start CP3 on the basis of new actuals rather than the regulated exit point from CP2. Whilst there may be arguments for looking at exceptional items on a case-by-case basis, to make a blanket assumption undermines the purpose of the CP2 determination in a fundamental way.

Units = GBP Feb 2018	CP2 submission	CP2 outturn
NR(HS) O&M	213m	213m
HS1 own costs	61m	66m
Total NR(HS) and HS1 O&M Costs	274m	279m 2%↑

3. Risk and Incentives

3.2. Examples of HS1 seeking to exclude costs from CP outturn

Brexit

During its engagement on the proposals for a revised PR19 timetable which arises from the pressures of Brexit, HS1 indicated that it would seek to charge on these additional costs. There is a general point of principle here. Many UK businesses – including Operators – are exposed to additional costs arising from Brexit, or a wide range of other business risks. There is no case for simply treating the unexpected as additional. HS1 should accept a level of business exposure to unexpected, or even unforeseeable, costs within the normal envelope of the CP determination.

Market testing of Operator Agreement in CP3

The following paragraph relates to market testing of the services provided under the Operator Agreement between HS1 and NR(HS) with a view to achieving greater efficiencies which would be passed on as lower OMR charges to the railways:

“If the ORR declines to treat market testing costs as suitable for inclusion as pass through costs, we [HS1] would wish to agree with ORR a specific review mechanism which would allow us to recover these costs if we proceed with the market test, subject to ORR determining that they have been efficiently incurred¹.”

We fundamentally disagree with this approach. As a ‘*best practice operator*²’ with a decade of experience, and a duty to operate in an efficient manner, we would expect HS1 to challenge suppliers and deliver efficiently in the customers’ best interests as part of their business as usual. The potential to market test the O&M contract has been a fundamental feature of the Concession from the outset and should be included in the long-term strategic planning of the business. There is no case for regarding it as somehow additional to the discharge of the Concession obligations.

¹ Section 16.6.2, 5 Year Asset Management Statement

² Supplement to Concession Agreement, 2015, Section 1, p.80

3. Risk and Incentives

3.3. HS1 passes through a premium to hedge its own efficiency risk



It is a fundamental component of efficiency that risks should be borne by the parties best placed to manage them.

The Concession is an operating agreement, not a finance asset, and HS1 retain a number of essential risks, including availability and asset stewardship. Their success (or otherwise) in managing these risks has a fundamental impact on pricing, since it flows through to the accuracy of forecasting, delivery and performance.

HS1 has told its investors that that the “majority of (O&M) costs and regulatory risks are passed on to sub-contractors”. The risk of challenge from the Regulator on costs is mitigated as costs are directly passed through with “full cost recovery in CP2 and NR(HS) taking majority of regulatory cost risks until at least 2025”. To accept this risk, NR(HS) charge an 8% premium on the O&M contract, on top of the usual management fees.

This approach is problematic for operators at **two levels:**

- If the principle is maintained (as it should be) that HS1 is held to the O&M determination, rather than outturn, then there is no benefit to operators of this premium. We are funding HS1’s hedging of a risk which it should own.
- We are concerned about HS1’s incentives to maintain expertise and interest in being an intelligent client and driving O&M efficiency. This is particularly so if performance incentives are also weakened.


Eurostar believe that the NR(HS) 8% performance premium should not be charged through to operators and HS1 should not be permitted to offset the entirety of the CP3 O&M outturn risk.

Key Risks Remain Mitigated

Consideration	Mitigation
Reduced Domestic Services	• Domestic traffic is underpinned by the UK Government for c. 53,000 train paths pa for the entire concession length. Standard timetable from December 2015 is c. 2,000 trains above the underpin level
Reduced International Traffic	• 20 year operational track record and business resilient in the face of recession and terrorist attacks with 10m passengers in 2016
Insolvency of Eurostar	• Still majority state owned post UK stake sale in 2015 • Potential to redistribute OMRC to domestic operator • Highly likely that another rail operator will step in, given profitability and prestige of service
Non-payment by a Domestic TOC (e.g. TOC Insolvency)	• Train Operating Companies pay quarterly in advance • The 4 TOC failures in the UK since 1994 have resulted in immediate remediation and access charges paid in full
Unexpected Event Occurring	• HS1 benefits from a comprehensive insurance framework including terrorism cover. Cover improved since 2012 to £20m from off route incidents and excess reduced from £5m to £2.5m. Excellent operating track record now of running full service with no major disruptions since 2009
Non-performance by Network Rail/UKPN	• Performance regimes under Network Rail OA and UKPN assume part of the risk
Regulatory Challenge of Costs	• Only OMRC reviewed. New OA and pass through costs. CP2 Periodic review confirmed full cost recovery with NRHS taking majority of regulatory cost risk until at least 2025
Unplanned Major Capex Spend	• Renewals funded through OMRC. Reviewed at each Control Period to ensure sufficient funds available. Major capex at stations unlikely – paid from accrued long term charge escrow. Total of £93.8m in escrow at end of the financial year 2016/17 • £7m GSMR specified upgrade nearing completion. Originally approved by ORR as a specified upgrade and will be recovered with financing costs from the TOCs. HS1 has no obligation to provide specified upgrades
Unexpected Changes to Regulatory Framework	• Clear regulatory statement from ORR, pre-approvals of agreements to date and good relationship. Periodic review clear evidence of ORR regulatory intent and no changes in framework proposed by ORR / TOCs • Regulation based upon, and supported by, precedent consultation process & supportive legal analysis

Note: for Brexit considerations, see slide 35

(Source: HS1 Annual Investor Presentation 4 Oct 2017 accessed from HS1 website 7 April 2019)


04 October 2017
Slide 34

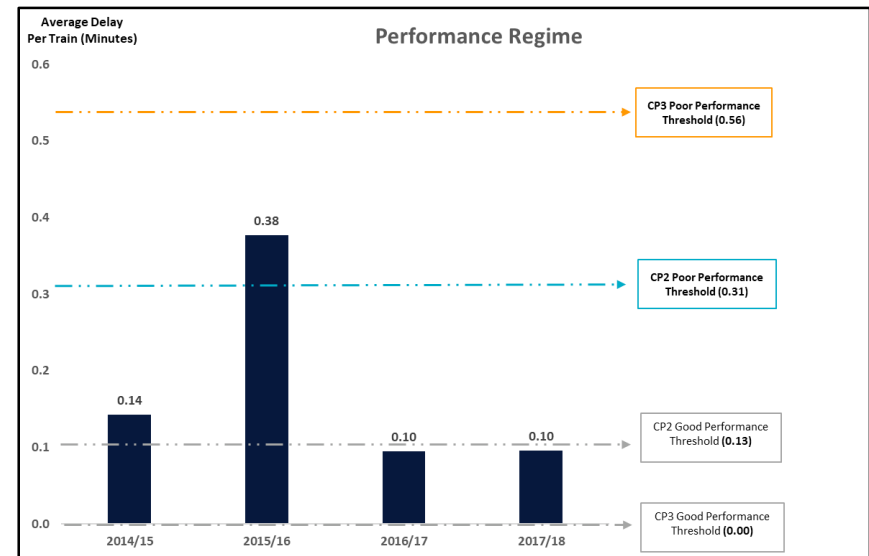
3. Risk and Incentives

3.4. Performance regime – revised thresholds

The Performance Regime is a key incentive mechanism to ensure HS1 retains focus on the operational performance of the railway. The principles of best practice and continuous improvement suggest that HS1 should be progressively tightening its own performance standards,

The draft 5YAMS proposals do the opposite with HS1 proposing to nearly double the headroom it enjoys before it is subject to any performance penalty. The issues this raises are:

- The new Poor Performance Threshold bears no relation to the previous four years of historical HS1 delay data captured in the Performance Regime, and Eurostar are unable to reconcile the published data with either of the proposed Thresholds.
- For the past four years average delays to Eurostar trains on HS1, due to HS1 causes, have been 8.6 seconds (2014-15), 22.6 seconds (2015-16), 5.7 seconds (2016-17) and 5.8 seconds (2017-18) versus a Poor Performance Threshold of 18.6 seconds (CP2), The proposed CP3 Poor Performance Threshold proposal is 33.6 seconds. This further transfers financial risk from HS1 to Eurostar by significantly reducing the possibility of HS1 paying Penalty Payments to Eurostar during CP3, during which the Annual Performance Regime Cap will significantly increase due to it flexing to Aggregate IRC + OMRC (3%).
- By effectively adding at least 300 delay minutes per 4-week Period before Penalties could be paid to Eurostar, there is far less incentive on HS1 or NR(HS) to manage Performance Incidents in a timely manner, to the detriment of the paying passengers.



Note: The above chart excludes 2018-19 due to two Periods being in dispute and the associated minutes not yet having been finalised.

We would welcome the opportunity to work with HS1, other operators and the ORR to agree revised performance targets which incentivise improvement of infrastructure performance.

3. Risk and Incentives

3.5. Build-up of Contingency and Fees

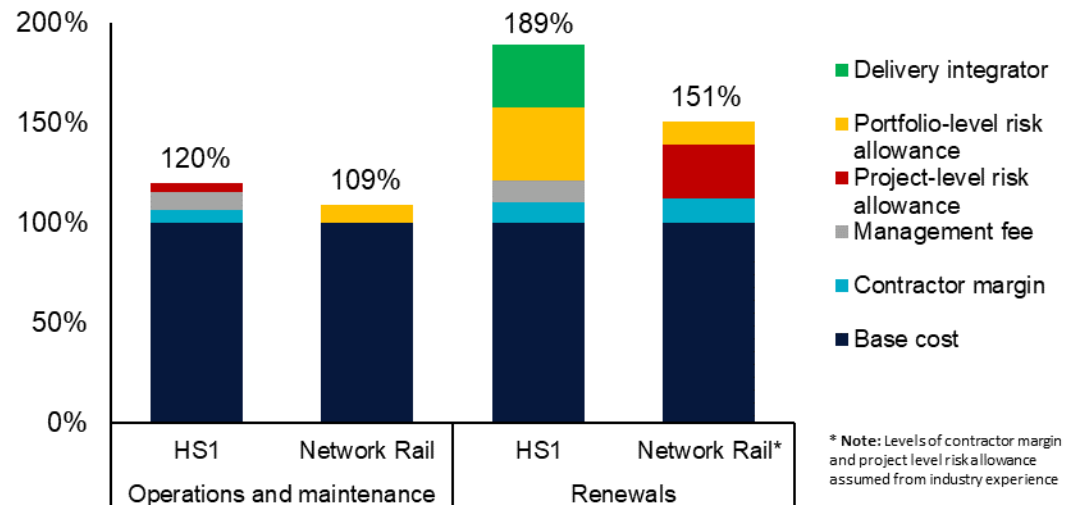
Contingency and fees make up £360m (24%) of the forecast £1.525bn of route renewals and £9.4m (25%) of the proposed £37.9m renewals annuity. They are layered bottom-up on direct costs in several places, with poor visibility of what they include. We consider that this compounding of fees inflates costs compared to what we would expect to see for the main-line network.

The renewals forecast has a significant client contingency of £276m (30%) added on top of the direct costs for years 6 to 40 – on top of a carrying balance in excess of £100m that itself represents additional contingency. The uncertainty implicit in a 40 year forecast of direct costs is compounded (“doubling-down”) by the addition of the 30% contingency, and 10% fees on direct costs and on contingency, leading to a peak projected closing escrow balance (excluding stations) of £350m.

By way of comparison the overall contingency for the construction of CTRL was 18% and the project was delivered within this at the risk of the then private partner.

We have not seen a clear breakdown of what these overheads cover and how the proposed levels of management fee, risk, project delivery costs and planning costs, along with a 30% client contingency can be justified.

Preliminary comparison with the main line network suggests O&M costs inflated by 38% for renewals and 11% for O&M.



3. Risk and Incentives

3.6. The incentives on HS1 to forecast accurately are weak

Accurate forecasting depends on asset knowledge. This is a fundamental responsibility of HS1 under the Concession Agreement¹. Significant changes and lack of transparency on unit costs raise important questions about how well HS1 is discharging this function.

The extent to which HS1 are penalised for inaccuracy of their long term forecasts, for example from applying incorrect assumptions or overestimating, is unclear. They have the ability to adjust a long term forecast which turns out subsequently to be too conservative but, by the nature of the annuity calculation, the impact of a “high” initial forecast is felt immediately on train operators and their passengers.

Under-funding can result in a highly visible and embarrassing sudden cash call on train operators, but over-funding can lead to decades of under-investment in developments which benefit passengers and increase usage of the line.

This risk dynamic suggests:

- the importance of holding HS1 to the accuracy of near-term forecasts, such as Control Period outturns; and,
- the need to exercise caution in determining the basis for significant charging increases on forecasts which lie outside a reasonable range of confidence

Eurostar would welcome a discussion on how HS1 can be incentivised to forecast accurately, rewarded for doing so but also carry meaningful risk. The latter point about the limitations of long-term forecasting is fundamental to the renewals proposals which are discussed in the next section.

¹ Supplement to Concession Agreement, 2015

4. Renewals (including stations)

Overview

This section considers renewals. We make the following key points:

- 4.1 Significant increases are predicated on low-confidence forecasts
- 4.2 Near doubling of overall costs from PR14 to PR19
- 4.3 Current users are charged for increased M&R costs that are based on *possible* increases in future traffic.
- 4.4 Three 'layers' of contingency are present throughout the route renewals
- 4.5 ERTMS is miscategorised and responsibility for funding needs review

4. Route and stations renewals forecasts

4.1 Significant increases are predicated on low-confidence forecasts

The table summarises the changes in the forecasts for renewals in CP3, forty year renewals and the associated annual payments:

£m Feb 2018	Renewals in CP3			40 year renewals			Annuity/Long Term Charge		
	PR14	PR19	<i>Increase</i>	PR14	PR19	<i>Increase</i>	PR14	PR19	<i>Increase</i>
Route	16.3	82.9	409%	781.0	1524.9	95%	12.6	37.9	201%
Stations	11.8	18.8	59%	357.9	421.5	18%	6.5	9.3	42%
Total	28.1	101.7	262%	1,138.9	1,946.4	71%	19.1	47.2	147%

Note: none of the above estimates include an explicit contingency overlay except for PR19 40 year renewals, where £276m of the full cost is identified as contingency.

Eurostar believe that significant price increases need to be underpinned by accurate forecasting built on a track record of good asset knowledge. The current proposals do not provide this. Put bluntly, if the latest renewals forecast for the next five years is more than three and a half times the forecast made five years ago, what confidence can we place in forecasts which go out forty years to 2060?

Even if the forecasts are better this time around, why should operators have to pay the full effect of adjustment from previously inaccurate forecasting? What is the incentive on HS1 to do better?

In addition, we note that:

- in the context of not adding contingency for stations, it is stated “the renewals are so far into the future that it is hard to generate a meaningful estimate of the costs, and it goes against the affordability criteria”¹;
- until January of this year, the route renewals forecast for CP3 was still lying in a range of £80 - £150m, a spread of c.100%;
- in their June 2018 report, Bechtel state that deriving the renewals forecast “proved challenging given the low level of accuracy of asset information covered in this plan” (p.36);
- the Dec 2018 Arup report states that “forecasting future asset condition (and thus the expected renewals profiles) is challenging because the assets are new in relative terms and are relatively unusual regarding standards and operations”;
- despite a DfT action at the end of the PR14 process², HS1 has not provided a 5 year station qualifying expenditure (QX) forecasts. As QX should be more predictable than renewals, we think that HS1’s inability to provide a 5 year forecast reflects a poor understanding of the asset base, and thus its ability to forecast.

We have little confidence in HS1’s forecasts and do not believe that they are sufficiently robust to be the basis for double and triple digit cost increases.

¹ in section 11.4 of the HS1 Stations LTC review,

² paragraph 2.153 of the “HS1 Control Period 2 – Stations Review Final Decision” of August 2014)

4. Forty year route renewals forecasts

4.2 48% increase in "like-for-like" costs and a 95% overall increase

Route Renewals £m (2018)	2015 / 2020 CP2	2020 / 2025 CP3	2025 / 2030 CP4	2030 / 2035 CP5	2035 / 2040 CP6	2040 / 2045 CP7	2045 / 2050 CP8	2050 / 2055 CP9	2055 / 2060 CP10	40 Year Totals
PR14 pre efficiencies	26	16	103	115	138	228	151	85		862
efficiency overlay	-	-0	-4	-7	-12	-25	-19	-13		-81
PR14 with efficiencies	26	16	99	108	126	203	131	72		781
PR19 direct costs		74	112	85	55	77	172	191	56	821
Prep & planning in CP3		-	6	-	-	-	-	-	-	6
Tier 2 management & fee @ 10%		-	11	9	6	8	17	19	6	75
Project/delivery costs		9	34	34	34	34	34	34	34	248
Comparable PR19 costs		83	163	127	94	119	224	244	96	1,150
ERTMS (direct cost)			-	90	-	-	-	-	-	90
ERTMS Tier 2 management & fee @ 10%			-	9	-	-	-	-	-	9
ERTMS Client Contingency @ 30%			-	30	-	-	-	-	-	30
Other Client Contingency @ 30%			37	28	18	25	57	63	18	246
PR19 full costs		83	200	284	113	144	281	307	114	1,525

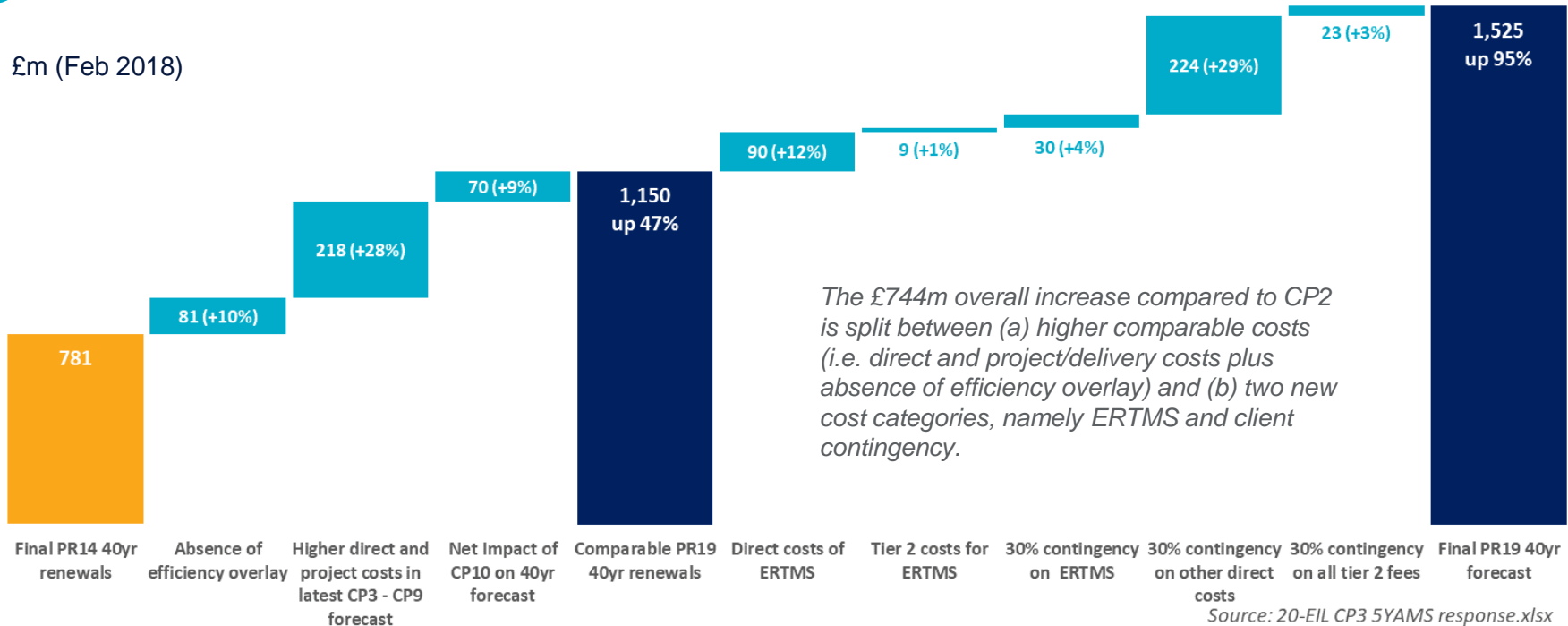
+ 47%

+ 95%

- The near doubling from CP2 to CP3 of the forty year renewals forecast is largely due to:
 - the absence of an explicit efficiency overlay combined with higher direct/project delivery costs; plus,
 - the inclusion of new categories of cost (ERTMS, tier 2 management & fee and client contingency).
- 60% of the full costs are direct (including ERTMS) with the 40% of indirect costs totalling £608m.
- The proposed CP3 route renewals forecast has 60% of the direct costs (excluding ERTMS) being incurred after the end of the Concession in 2040 (the end of CP6), whereas for CP2, the corresponding percentage was 52%.

4. Forty year route renewals forecasts

4.2 Comparison of forecast renewal costs between PR14 and PR19



New cost categories drive half of the increase in forecast renewals and we do not believe that any of these should be included. In our view, ERTMS should be classed as a Specified Upgrade and the imposition of **a uniform 30% contingency throughout the 40 year period is unjustified**. It equates to the contingency allowance at GRIP Stage 0 of NR planning but, crucially, is being applied over the full 40 years **and irrespective of the maturity status of the individual renewal projects**. Such an approach is simply compounding the uncertainty inherent in multi-decade forecasts for which “*it is hard to generate a meaningful estimate*”.

We have not yet seen the derivation of renewals costings as part of this review, which raises key questions such as the degree to which the costs have been based on historic data and the degree to which out-turn risk has been removed from unit costs. Furthermore, we note that some indirect renewals costs appear to have been included in the 5YAMS for CP2 – it is unclear to what extent such costs may have been double-counted.

The following three slides outline our position in relation to higher direct and project costs, contingency and ERTMS.

¹ Section 11.4, HS1 Stations LTC review

4. Forty year route renewals forecast

4.3 Near doubling in int'l train paths in first 20 years is not explained

The draft route 5YAMS shows that there are assumed to be 32,200 international train paths in 2040, 87% up on the 2017/18 figure of 17,200 (p.51). The growth is said to be made up of additional Eurostar services and new entrants. These assumptions arise from the engagement by HS1 of *“independent experts to provide analysis of the underlying drivers and the likely range of future demand”* (p.50).

HS1 is free to set whatever assumptions it wishes about new operators and the future competitive landscape. However, because of the “pay-forward” approach, at least a proportion of the additional wear and tear generated by these increased volumes will be reflected in the level of charges to be paid today. Therefore, the assumptions need to be validated, especially given the significant volume increases envisaged, and we have a number of questions. For example:

- How is Eurostar assumed to respond to the new entrant and is the volume growth assumed to be entirely additional to the underlying Eurostar forecasts which remain unaffected?
- The 87% growth in international services is equivalent to c. 2.9% p.a., higher than the annual growth rates assumed for Paris and Brussels services. What is the basis for this growth?
- In forecasting the numbers of international trains, did the independent experts simply concentrate on “market size and share” analysis or did they take into account route profitability, including notably the trend of infrastructure costs in each territory and in the Channel Tunnel? In particular, was account taken of the proposed 46% rise in international train costs on HS1 from April 2020?
- How much of the forty year renewals forecast is due to growth in international services, and what studies have been done to consider other constraints such as station and platform capacity?

The reopener provisions can be used when a new entrant arrives and subsequent charges revised at the next periodic review onwards. Whilst we understand the desire of HS1 to have indicative forecasts, these are incapable of reasonable validation and should not be built into charges today.

HS1 has forecast strong growth in traffic over time. This traffic increase appears to have been built into the 40 year maintenance and renewals requirements. There is a concern that additional costs – which are assumed to be caused by a putative future competitor – are expected to be part funded now by Eurostar’s own passengers whilst there is no certainty that such an operator and such costs will materialise.

4. Forty year route renewals forecasts

4.4 Contingency is present throughout the route renewals

Eurostar believe that there are actually three ‘layers’ of contingency in the renewals:

1. The funds in the route escrow account, forecast at £199m on CP3 exit (table 69) and peaking at £350m in 2042/43, provide immediate contingency;
2. There is contingency built into the underlying renewals volumes: on page 12 of their June 2018 report, Bechtel state that **the renewals plan “uses conservative volumes ... to build enough contingency”**;
3. The assumed 30% client contingency hypothecates £276m as further explicit contingency; we consider that for renewals, which in many cases are repeatable work items with a clearly defined scope, the risk allocation of +/- 15% (GRIP stage 4) may be more appropriate.

We do not believe that such an accumulation of contingency in the renewals forecast reflects “best practice” manager and it is not “timely, efficient and economic”.

Furthermore, we note that London & Continental Railways built the high speed line and associated stations within the funding envelope with a contingency of 18% (2012 National Audit Office report on the completion and sale of HS1); it is not apparent why renewals of an asset which is less than 20 years old should have a contingency rate applied which is nearly double that used for the original construction of the asset.

We also note that the forty year renewals forecasts for the stations exclude any explicit contingency overlay. In the context of not adding contingency, Section 11.4 of the HS1 Stations LTC review states **“the renewals are so far into the future that it is hard to generate a meaningful estimate of the costs, and it goes against the affordability criteria”**.

Given the uncertainty in the renewals forecasts, the existence of the Escrow account and the conservative renewals volumes, Eurostar believe that imposing an explicit 30% client contingency simply compounds uncertainty and double-downs on existing contingency.

4. Forty year route renewals forecasts

4.5 ERTMS is miscategorised and responsibility for funding needs review

Eurostar urge HS1 to join us in seeking discussion with HMG on the classification and funding of ERTMS, and not to pre-empt outcomes in this review.

Categorisation

We consider that ERTMS should be a Specified Upgrade and not a renewal. The Concession is clear that “*major upgrades of the signalling, control systems of track form for HS1 comprised in the HS1 Railway Infrastructure, including any such upgrades required in connection with the implementation of a TSI requirement*” are considered as Specified Upgrades.

This is clearly the case with ERTMS since:

- track side ERTMS, on train ERTMS, and GSM-R track and train are all part of the same Command, Control and Signalling TSI made European law by EU 2016/919 and the preceding EU 2008/57;
- HS1 have previously considered track side GSM-R a Specified Upgrade, and this would be consistent.

Funding

Even as a Specified Upgrade, the proposals to fully fund the infrastructure elements of ERTMS within the Concession framework place a unique burden on HS1 operators within Europe and would stymie the commercial development of the railway.

In the PR18 Review for Network Rail, the DfT and Network Rail have committed to funding the installation of track side ERTMS equipment on the East Coast, Great Eastern and the South Western Main Lines, having previously done so on both the Cambrian Line and the Thameslink route. There is no requirement for TOC funding of either current or future track side ERTMS equipment in the South Eastern franchise documentation.

This is clearly indicative of the current and future strategy for track side ERTMS funding within the UK, which is also consistent with the funding strategies on other mainland European networks.

Eurostar will absorb project costs currently estimated at £[Confidential]m to upgrade its fleet. **It is unsustainable for EIL – or any other commercial operator – to bear £130m additional trackside costs.** It places both Eurostar and HS1 in a uniquely disadvantageous position.

5. Annuity and LTC funding of renewals

Overview

This section addresses issue relating to long term funding (as opposed to forecasting), argues for an inclusive review of alternative options and illustrates one such alternative:

- 5.1** The Escrow accounts are a very inefficient use of capital
- 5.2** Whilst we agree with the escrow principle, we disagree that the 40 year “look ahead” implies a 40 year “pay ahead”
- 5.3** Proposal to illustrate an option for a sustainable alternative

5. Annuity and LTC funding of renewals

5.1 The Escrow accounts represent a very inefficient use of capital

The draft 5YAMS documents lead to significant rises in the proposed annual payments to be made by the railways into the Escrow funds:

- the proposed route annuity of £37.9m is three times the current £12.6m p.a. and twice the £18.4m p.a. “guide” in the CP2 5YAMS
- the proposed LTCs for St Pancras, Ebbsfleet and Ashford total £8.1m, 39% higher than the CP2 charge of £5.8m¹

In turn these high annual payments lead to the projected funds in the Escrow account reaching extraordinary levels:

- the combined total of the route and stations escrow accounts peaks at £505m in March 2043
- the total of the projected closing balances of the Escrow accounts exceeds the opening balance total of £106m in each and every one of the 31 years up to and including 2049/50, with five years forecast to have closing balances above £400m
- at the end of the concession, March 2040, a closing total balance of £350m is forecast
- the accounts are forecast to be net overdrawn for the last 9 years, plunging to -£154m by March 2054 but no assumptions are made about the need or opportunity for these highs and lows to be considered in the context of the Concession re-let two control periods earlier.

The investment rules – no longer than CPend+12 months, very safe assets, A- (S&P) or higher for banks – **lead to an investment strategy which is essentially cash and short term, and not fit for funding 40 year renewals.**

Monies in the Escrow account are projected to earn c.1.1% p.a. due to the very restricted range of investment types and tenors allowed by the Concession Agreement.

Consequently, substantial sums of railway capital are projected to be tied up at returns scarcely better than zero, rather than being invested in projects to benefit passengers services which would thus grow use of the route and the stations.

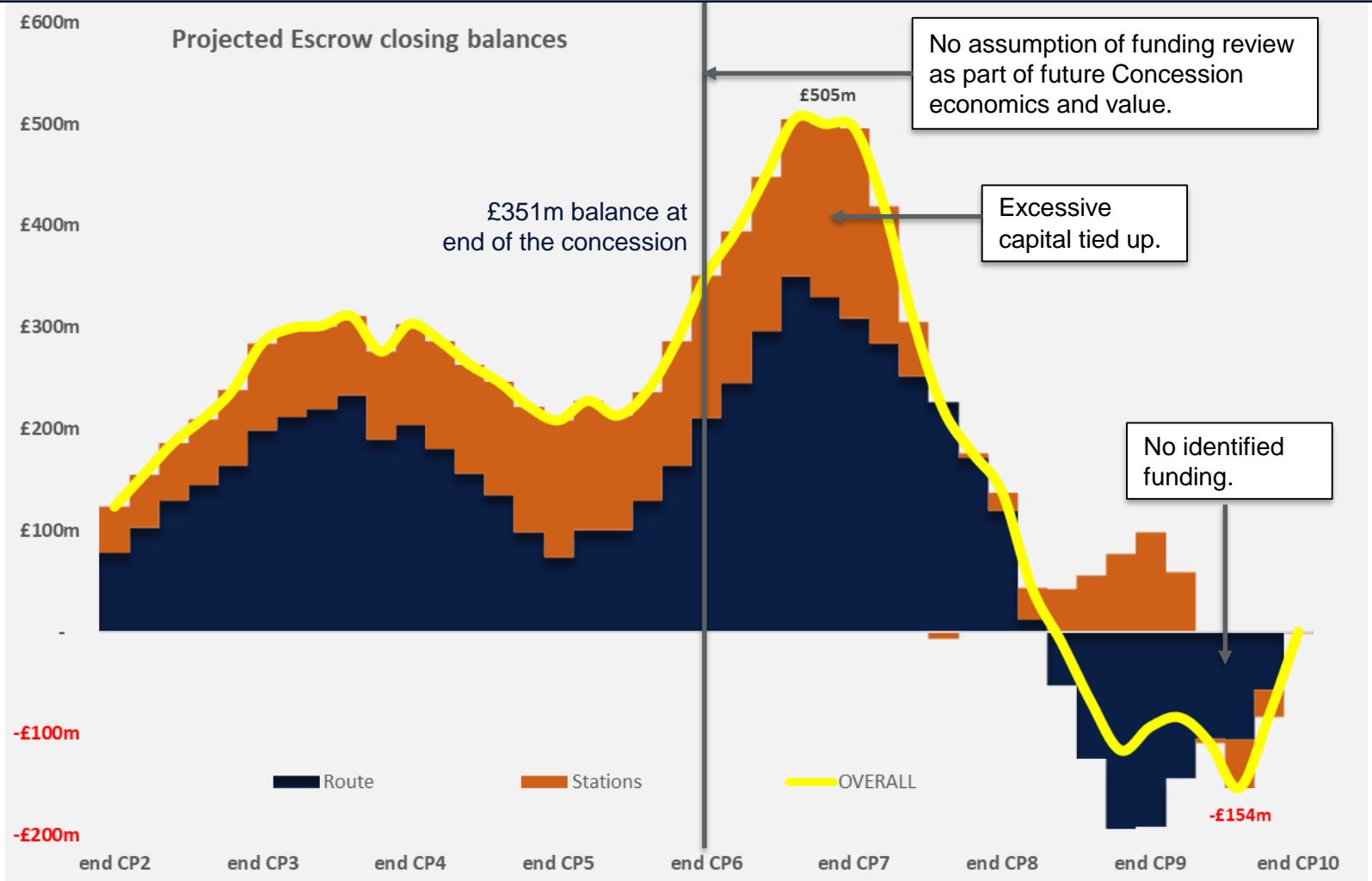
¹ p5 of the draft stations 5YAMS

5. Annuity and LTC funding of renewals



5.1 Combined route and stations escrow balance to end CP10

Eurostar agrees with the principles of a sustainable basis for renewals funding, and the holding of a reasonable escrow account to smooth contributions and absorb shock or contingency. However, the approach which has evolved creates some fundamental issues of efficiency and sustainability.



5. Funding forty years of renewals in advance

5.2 We question whether a 40 year “look ahead” implies a 40 year “pay ahead”

Whilst we agree with the escrow principle, we disagree that the 40 year “look ahead” implies a 40 year “pay ahead”.

The current approach of funding renewals by “annuitizing” a forty years forecast of renewals such that the Escrow has a zero closing balance after forty years is not required by the Concession Agreement but seems to be a matter of custom and practice established in CP1 and CP2.

Furthermore, ORR’s 2009 “Regulation of HS1” statement is silent as to how far ahead renewals costs should be funded.

A 40 year pay-forward is significantly out of step with the approach taken on all other infrastructure networks. Those used by Eurostar have ‘pay ahead’ periods of between 1 and 5 years; we note that during the December 2018 workshop, NR(HS) indicated that NRIL only forecasts 10 years ahead.

Operations, maintenance and renewal charge

18. Under the concession agreement, the element of track access charges levied for operation, maintenance, and renewal of High Speed 1 Railway Infrastructure⁶ (‘OMR charges’) is subject to periodic review by ORR. During the course of such reviews we would expect to either approve or determine the level of operation, maintenance, and renewal cost that would be incurred by an efficient operator, and set a level of OMR charges consistent with that. For passenger operators we expect that the OMR charges will, in particular, continue to comprise:

- charges for costs directly incurred as a result of operating train services; and
- charges for fixed and common costs, recovered as long-term costs of providing for railway services on HS1 (that is, of the operational phase of the High Speed 1 project). Charges relating to renewal will be calculated as an annuity based on the long term cost with a fund, held in escrow, being built up to cover the cost of future renewals.

Source: “Regulation of HS1” statement, ORR, 2009.

Eurostar believe that it would be appropriate to conduct a fundamental review of the renewals funding methodologies. We would welcome the opportunity to work with HS1, ORR, DfT and other operators on such a review.

The inherent uncertainty in forecasting out four decades means that the annuity method of funding leads to “tomorrow’s uncertainty being funded today”. The application of the Escrow over 40 years runs the risk of penalising railways today with very high charges to cover the unknowable costs and commercial behaviour of railways in the future.

The annuity method imports into today’s charges a proportion of forward funding for control periods that Eurostar may not be around to see. Eurostar is not just being asked to pay for the renewals its own services will necessitate, but also for some of the renewals from a future international operator’s services. This is generational inequity.

5. Funding route renewals

5.3 Proposal to illustrate a sustainable alternative

The analysis raises some far-reaching concerns with the existing methodology:

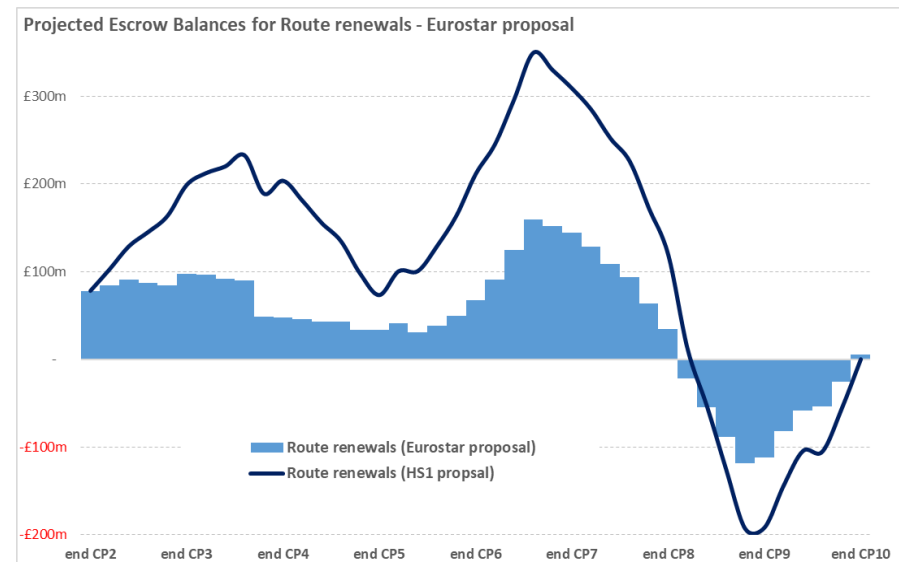
- funding 40 years of forecasts, due to the inherent uncertainty in such forecasts tending to render the calculated annuity “unaffordable”;
- inefficiently large amounts of capital being tied up in very low yielding escrow accounts;
- including ERTMS and a uniform contingency uplift in the forecasts;
- Any charging element which accrues to extremely ambitious future growth forecasts which are unvalidated and may simply not materialise.

To illustrate an alternative approach (recognising that other options will also be available), we have modelled what we call the Eurostar “Ratchet” model on a 15 year pay-ahead of the forecast renewals. Using the existing forecast and settling the annual payment for CP3 as the sum of 100% of the direct and delivery costs for CP3, 100% of the direct and delivery costs for CP4, and 50% of the direct and delivery costs for CP5, and then dividing by 15, gives an annual real charge of £20.45m. The option is based on excluding ERTMS, applying no uniform contingency uplift and the benefit of a 0.5% p.a. efficiency overlay, and using CPI of 2% to inflate real costs to nominal rather than RPI of 2.75%.

The chart demonstrates that with these assumptions, the carrying value of the Escrow account remains strongly positive in every year up to 2049 and is only negative beyond 2050, where the Escrow’s balance in initial HS1 proposals also turns negative.

This option is similar to the Escrow account profile of the draft 5YAMS at more proportionate levels of account balance.

We do not argue our proposal is definitive. However, we do believe that there needs to be a review of the renewals/escrow approach to identify sustainable alternatives.



6. Stations apportionment of costs

Overview

Overall principles relating to stations costs were included within Section 4 – Renewals. This section comments specifically on the following key point:

6.1 Methodology for apportionment of station LTC should be reviewed

6. Stations

6.1 Support HS1's proposed review of station LTC apportionment

Eurostar welcome the intentions set up by HS1 in the stations 5YAMS to review the scope and methodology for the apportionment of station charges. In the draft 5YAMS HS1 focus on Thameslink. We think there are two broad categories:

a. Non-rail users: A high-proportion of “footfall” users of St Pancras Station are not counted or are non-rail users.

- As HS1 indicate, users of the Thameslink service are forecast to increase significantly over CP3 and beyond. However, as the “Thameslink Box” is not counted as part of SPI, no contribution is made for these passengers, even though their sole access and egress is via the SPI concourse.
- There are also users of the retail estate who do not use the trains. Rail operators see limited direct benefit from this footfall.

b. LTC and the retail estate: HS1 currently adopt the NRIL model for station charges and do not charge LTC to the retail estate. However, this is not a requirement or restriction of the Concession Agreement (which only requires charging in accordance with the relevant Access and Charging Regulations).

- There is a strong argument that the national model is not appropriate for HS1 stations. That is because NRIL, as a not for dividend company, recycles the retail income back into station development. It therefore offsets the costs that railway operators would otherwise have to bear.
- It is not apparent that this happens on HS1. Currently HS1 earns an operating margin of c.63% on its retail activity. Since this does not appear to be recycled, there is a risk that the approach breaks the principles of charging according to usage under the access regulations and risks becoming a cross subsidy from rail users to the separate commercial business of HS1.

Eurostar believe that the approach to the apportionment station costs needs to be reviewed and validated or changed. We support HS1's proposals to review the Thameslink contribution at the time of franchise change. However, we also think the review needs to look more broadly at other users, including retail contribution to LTC. We are happy to discuss different allocation metrics.

7. Response to consultation questions

Overview

This section contains the following slides:

7.1 Answers to the questions (Route)

7.2 Answers to the questions (Stations)

7. Response to draft CP3 5YAMS

7.1. Answers to the questions – Route

No.	Question	Answer
1	Do you agree with our asset management approach and the development of our long-term renewals plans (including our proposals for funding ERTMS as a renewal)? Do you support the recommendations of the Bechtel report?	No. The asset management approach in the draft 5YAMS drives excessive costs for train operators, with excessive contingency and management fees. There is limited confidence in the forecasts underpinning it. Eurostar does not agree with categorisation of ERTMS as a renewal. Please see Sections 4 & 5.
2	We welcome your feedback on our O&M proposals, including your views on whether they appropriately respond to the proposed CP3 outputs previously agreed with stakeholders.	Our principal comments on O&M at this stage relate to the level of proposed efficiencies and on the assumed indexation of pass-through costs. Sections 1.1 - 1.3. We also have concerns about assumed start point of CP2 actuals and some proposed additional costs. We do not see the case to charge on the NR(HS) 8% fixed cost premium. Sections 3.1 - 3.2
3	We welcome your views on our proposals to improve governance for CP3 renewals. Specifically, do you support our proposals for increased operator engagement in decision-making on renewals projects?	We welcome an openness of dialogue and reporting of progress against the renewals plan. Our principal interest is not to engage with each proposed renewal but to use the PR process to ensure that the overall plan is robust and its costs efficient. Drawing TOCs too deeply into a “sign-off” process could muddle risks and responsibilities. We would wish to maintain a more active interest in specified upgrades or enhancements.
4	Do you agree with the criteria we have adopted for calculating the renewals annuity, specifically: <ul style="list-style-type: none"> • sustainability • user pays • affordability • stability; and • efficiency 	We agree the criteria but believe that the current methodology is driving an application which does not take a balanced view of these criteria. For instance, there is more than one dimension to sustainability; and allocation between current and any future users risks being prejudicial. Please see Sections 4 & 5.
5	Do you agree with our approach to calculating the renewals annuity? Does it demonstrate consistency with our asset stewardship obligations in the Concession Agreement while satisfying the commercial requirements of your business?	We believe that the current methodology is no longer fit for purpose and should be reviewed. Please see Sections 4 & 5.

7. Response to draft CP3 5YAMS

7.1. Answers to the questions – Route (continued)

No.	Question	Answer
6	<p>If you have concerns with our approach to calculating the renewals annuity, how would you propose that we modify our proposal? Do you support the following options, noting that each will have different implications for existing and future stakeholders:</p> <ul style="list-style-type: none"> • Revising contingency levels for future renewals projects? • Moving to a zero escrow account balance at concession handback (2040) rather than at 2060? • Modifying HS1 Ltd.'s obligations in the Concession Agreement? <p>Is there anything else which would address your concerns?</p>	<p>We have provided an illustrative example of an alternative approach but remain open to discussing a range of alternatives which better deliver the criteria summarised in Question 4 above.</p> <p>Please see Section 5.4</p>
7	<p>Do you agree with our proposals to make minor changes to the regulatory regime for the HS1 route (including suspension of the Capacity Reservation Charge)?</p>	<p>We welcome the suspension of the Capacity Reservation Charge whilst there is only one international passenger operator. We have concerns about the new proposed thresholds to the HS1 Performance Regime which we believe provide insufficient incentives. Please see Section 3.3</p> <p>We note the proposals to clarify the wording in the PAT in relation to baselines for volume re-openers. Experience suggests this can be a minefield of competing interpretations and we would welcome the opportunity to discuss any proposals.</p>
8	<p>Is there anything missing from the document(s) that would help your business or organisation over the course of CP3?</p>	<p>Detailed 'bridge / waterfall' charts explaining the movements in costs and charges between CP2 and CP3 would be helpful. For, example a chart breaking out the components of the 46% increase in OMRC/minute for international trains and showing why the increase is so much greater than that proposed for domestic OMRC</p>
9	<p>Are you satisfied with how we have engaged with you to date as part of the PR19 process?</p>	<p>Given the context of our application for Judicial Review, we would not propose to comment further at this stage.</p>
10	<p>Is there any other area of the document you would like to comment on that was not raised as a specific question?</p>	<p>This is the most complex of the three Periodic Reviews conducted to date. Whilst we have sought to focus on the most material points the draft 5YAMS raises a significant range of important topics at varying levels of detail. Our response cannot be comprehensive in the time available and we wish to maintain an ongoing dialogue.</p>

7. Response to draft CP3 5YAMS

7.2. Answers to the questions – Stations

No.	Question	Answer
1	Do you agree with our asset management approach and the basis of our long-term renewals plans?	We are concerned that significant price increases are driven off forecasts which carry low levels of confidence and validation. This reflects previously established concerns over cost management in stations and the need to provide of multi-year QX budgets. Please see Section 4.1
2	We welcome your views on our assessment of individual station asset criticality, as part of our renewals programme.	We have been unable to review these at this stage.
3	Do you agree with the approach we have taken to calculating the LTC, in view of the HS1 asset stewardship obligations? We welcome views on inclusion of on-costs, risk and contingency in the overall cost base, and any other factors which impact the commercial requirements of operators.	The LTC includes neither contingency nor efficiency but both would be meaningless without a robust baseline forecast. We believe that costs should be held flat until effective control can be demonstrated. Section 2.6. We support HS1 proposals to review apportionment of costs in relation to Thameslink but believe that these should be widened to include retail contribution to LTC also. Section 6
4	Do you agree with our proposals to modify the regulatory framework, particularly the addition of a new stations enhancements policy?	We strongly support the proposals to introduce develop a new policy for station enhancements. At this stage we are neutral as to whether this should require change to the Concession Agreement. We agree with the high-level proposals indicated, including beneficiary pays – recognising that the IM as well as Operators may be one such beneficiary. We look forward to engaging further on the topic.
5	Are our station safety and security improvement measures clear? Would you suggest any amendments to our approach?	HS1's proposed safety and security improvement measures are commensurate with our expectations
6	Is there anything missing from the document(s) that would help your business or organisation over the course of CP3?	The fundamental issue remains that of confidence in cost projections and forecasting. There needs to be a five year look-ahead for QX.
7	Are you satisfied with how we have engaged with you to date as part of the PR19 process?	As per route above.
8	Is there any other area of the document you would like to comment on that was not raised as a specific question?	As per route above

8. References

- HS1 Ltd Five Year Asset Management Statement for Control Period 3, Draft for Consultation, 28 February 2019, HS1
- HS1 Ltd Stations Long Term Charge Review for Control Period 3, Draft for Consultation, 28 February 2019, HS1
- HS1 Ltd Five Year Asset Management Statement [for Control Period 2], 31 December 2013, HS1
- Concession Agreement for the design, construction, financing, operation, repair and maintenance of High Speed 1, December 2017
- The Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016, July 2016
- Phase 1 Deliverability Strategy Report, October 2017, Bechtel
- 2018 periodic review final determination, Summary of conclusions for England & Wales, October 2018, Office of Rail and Road
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- The completion and sale of High Speed 1, March 2012, National Audit Office
- HS1 Cost Review, October 2009, prepared by Arup for Office of Rail Regulation
- 2014 High Speed 1 Periodic Review (PR14), ORR's Approval of HS1 Ltd.'s Five Year Asset Management Statement, May 2014, Office of Rail Regulation
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- High Speed Rail – Fast track to sustainable mobility, International Union of Railways (UIC), May 2018
- HS1 Annual Investor Presentation, 4 October 2017, HS1
- Commission Regulation (EU) 2016/919 of 27 May 2016 on the technical specification for interoperability relating to the 'control-command and signalling' subsystems of the rail system in the European Union (Text with EEA relevance)
- Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community (Recast) (Text with EEA relevance)
- HS1 Ltd, HSI Renewals Programme, Governance Handbook Report, December 2018, Arup
- OMR Cost – Top down benchmark – Final Report Ref NLA813R02, 26 September 2013, prepared for HS1
- Annual Assessment of Highways England's Performance – 2017-18, 2018, ORR