



Periodic Review of HS1 Ltd 2024 (PR24)

Approach and process

31 January 2023



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Executive summary

This document

This document sets out the process for our next periodic review of HS1 Ltd (PR24), and the approach that we intend to take. It sets out the questions asked in our initial consultation on PR24, summarises the responses we received, and sets out the approach we have decided to take after considering all the feedback from stakeholders.

The process for PR24

Our initial consultation was the first of several stages of engagement with stakeholders. HS1 Ltd will be consulting ORR and other stakeholders on its draft five-year asset management statement (covering HS1 route infrastructure) and draft life cycle reports (covering the four HS1 stations) by 29 February 2024. HS1 Ltd should then take into account stakeholders' feedback, before submitting the final versions of these documents to ORR by 31 May 2024.

We will publish our draft determinations on HS1 Ltd's plans and consult stakeholders by 30 September 2024. We will then issue our final determinations by 6 January 2025.

Key factors in our approach

Primarily, our approach to PR24 aims to meet our obligations under the Concession Agreement and the stations leases. In particular these include ensuring that HS1 Ltd's plans are consistent with its general duty (for the route assets) and the life cycle purposes (for the station assets). In several places the Concession Agreement and stations leases require HS1 Ltd to comply "to the greatest extent reasonably practicable having regard to all relevant circumstances" and to consider whether charges can be borne by the system. As such, we will continue to engage with operators to understand the impact of charges on them.

We are aware of ongoing discussions between HS1's stakeholders and DfT about possibly amending parts of the Concession Agreement. ORR's approach will be to proceed with PR24 on the basis of the current Concession Agreement. Given that our determination at the end of the periodic review must be consistent with the Concession Agreement, the decisions we take cannot alter the Concession Agreement. Therefore, any proposals to amend the Concession Agreement must be addressed to the Secretary of State – the PR24 process is not the appropriate mechanism to discuss any such amendments.

To comply with the Concession Agreement, much of our approach to PR24 will be similar to our previous periodic review (PR19). However, there are two fundamental changes:

- (1) Since PR19, the regulation of renewals on HS1 stations has transferred from DfT to ORR. As such, PR24 will be ORR's first periodic review of HS1 Ltd's stations. The timeline for stations and route are now aligned, and we will be conducting additional stakeholder engagement and assurance on stations, to ensure we fully understand those assets and charging structures. Reviewing route and stations together allows us to ensure there is consistent treatment of issues including financial risk and efficiency across the whole system.
- (2) Since the last periodic review, the COVID-19 pandemic and other events have introduced a high level of uncertainty in the HS1 system (e.g. on costs and traffic levels). In the current control period, there has been some discussion of the legal mechanisms and processes available to deal with this uncertainty, but no clear strategies. As such, in PR24 we intend to consider a more holistic approach to managing uncertainty. Throughout PR24 we will clearly identify areas of uncertainty in HS1 Ltd's plans and in our determination. Then we will work with HS1 Ltd and other stakeholders to understand the mechanisms available to the railway system to mitigate the risks arising from this uncertainty. This should allow us to ensure that parties better understand where risk and uncertainty is already assigned in the system, which should help us to avoid double-counting of risk in PR24.

1. Background and introduction

The HS1 network

- 1.1 The HS1 network is a 109km high-speed rail line that connects London St Pancras through Kent to the Channel Tunnel.
- 1.2 There are four stations on the line: London St Pancras, Stratford International, Ebbsfleet International and Ashford International.
- 1.3 This network is used by domestic services between London and Kent and within Kent; and international passenger and freight operations through the Channel Tunnel.

HS1 Ltd

- 1.4 HS1 Ltd holds a 30-year concession of the HS1 network until 30 December 2040, and concurrent leases for the four stations on the line. Some of its revenue comes from regulated access charges which are paid by train operators to use HS1 Ltd's track and stations. The company also receives further income, which is not regulated, to recover the long-term costs of the project; and from the provision of retail facilities and car parking at stations. Unlike Network Rail Infrastructure Ltd (NRIL), HS1 Ltd does not receive any Government network grants.
- 1.5 Many of the functions which HS1 Ltd must perform as infrastructure manager under the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016, such as operation, maintenance, renewal, signalling and timetabling, are contracted out to third parties.
- 1.6 HS1 Ltd also manages contracts for the provision of certain services, the costs of which are passed directly through to operators as part of their charges. For example, this includes electrical power supplied by UK Power Network Services.

Our role in relation to HS1 Ltd

- 1.7 We regulate the safety of the HS1 network under the Railways and Other Guided Transport Systems (Safety) Regulations 2006; the Concession Agreement; and the stations leases. HS1 Ltd has safety obligations set out under the Concession Agreement and stations leases. Network Rail (High Speed) Ltd (NR(HS)) and Mitie Plc also have safety obligations because they are the safety duty holders for the

railway, holding safety authorisations for the route and Ashford Station respectively.

- 1.8 We also have responsibilities to regulate HS1 Ltd's charging of operators under the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016 (the Regulations). These functions include: a pre-approval role for new and amended framework agreements; ensuring that charges for use of the assets comply with the requirements of the Regulations; and ensuring that HS1 Ltd is provided with incentives to reduce the costs of provision of infrastructure and access charges.
- 1.9 In addition, the concession agreement assigns duties to us in regulating HS1 Ltd to ensure that it meets its asset stewardship purpose. Similarly, the stations leases assign regulatory duties to us, to ensure HS1 Ltd's plans for each of its four stations meet the life cycle purpose for that station.
- 1.10 We have entered into a [Memorandum of Understanding](#) with the SoS in respect of the performance of our roles on the HS1 network. Our overall approach to our economic regulation of the HS1 network is outlined in two regulatory statements published in [2009](#) and [2021](#).
- 1.11 In particular, we are required by the Concession Agreement and stations leases to undertake periodic reviews of the asset management plans and the charges for using the network. Our 2024 Periodic Review of HS1 Ltd (PR24) will cover the fourth control period of HS1's concession and lease periods (referred to as "CP4"), covering 1 April 2025 – 31 March 2030.
- 1.12 The remainder of this report will set out our approach to the PR24 review process, taking into account all of the regulatory obligations described above, but also taking into account the consultation responses from stakeholders which highlight specific, current issues for this periodic review.

2. Our approach to PR24

Asset stewardship and life cycle purposes

2.1. The following sections cover key aspects of our approach to asset management, for the HS1 route and the four HS1 stations.

Cost reduction

2.2. HS1 Ltd must produce plans that deliver its asset stewardship purpose (route) and life cycle purposes (stations) and comply with safety requirements. We will assess whether HS1 Ltd has applied a reasonable approach to balancing long-term savings through their asset management strategies; short-term savings through renewals and maintenance intervention plans; and asset performance.

Specific stakeholder feedback and our response

We asked stakeholders what factors we should take into account when assessing HS1 Ltd's plans that must comply with the regulatory framework, but may need to balance the level of asset performance against the need to reduce costs.

Passenger operators using the route and stations - South East Trains Ltd (SETL), Eurostar International Ltd (EIL) and Transport for London (TfL) - were keen that cost savings were generated by driving efficiencies in the delivery of renewals and maintenance, rather than making performance trade-offs which would impact their ability to provide current levels of train services. We are aware through PR24 workshops that HS1 Ltd and NR(HS) are proposing some efficiency savings, but they are also working with operators to understand an acceptable weighting of asset management objectives, to balance performance and cost (as well as other factors including growth and environmental sustainability).

GB Railfreight asked that the potential for growth in freight services be taken into account when considering the level of overnight service availability.

We will carry out our own assessment of the asset management strategies and plans, to look for potential cost reductions. This will include reviewing documents, site visits and challenge sessions. We will continue to encourage HS1 Ltd, NR(HS) and operators to agree asset management objectives which balance conflicting needs. We must ensure that HS1 Ltd meets its asset stewardship and life cycle purposes, while still doing everything reasonably practicable to meet current and future users' needs. We would expect to see a whole-life cost approach in accordance with best practice asset

management to ensure that inefficiencies are not created which will lead to additional costs over time.

Cost efficiency and benchmarking

- 2.2 In scrutinising HS1 Ltd's efficiency plans, our starting point will be the cost efficiency plan included in its five-year asset management strategy (5YAMS) and asset life cycle reports (LCRs). Our approach to assessing efficiency in PR24 will include use of top-down cost benchmarking. We will use this analysis to complement our understanding of the relationship between HS1 Ltd's key cost drivers and its efficiency. We will also look at a sample of bottom-up costs and challenge any inefficiencies.
- 2.3 We understand that HS1 Ltd is undertaking benchmarking analysis to allow comparisons with other international infrastructure managers to try and quantify the efficiency position. We expect that this work will be supplemented by HS1 Ltd's:
- (a) analysis of life-cycle costing;
 - (b) out-turn information on the efficiency initiatives in CP3; and
 - (c) other efficiency initiatives that will be developed for the purpose of the review.
- 2.4 HS1 Ltd should provide top-down benchmarking data and also provide access to a sample of bottom-up costs for validation, to support the costs put forward in the 5YAMS and LCRs. Benchmarking should include a sufficient number of comparator organisations to allow meaningful conclusions to be drawn. Depending on the extent to which we are satisfied with the robustness of HS1 Ltd's approach and the way in which it uses its benchmarking analysis to inform the 5YAMS, we may undertake our own analysis.

Specific stakeholder feedback and our response

We asked stakeholders for comments on our proposed approach to the assessment of efficiency. While EIL supported our use of benchmarking to drive top-down cost efficiency, SETL was reluctant that money that it pays in charges be used for external expertise in areas in which HS1 Ltd has now developed its own knowledge and use of data. We recognise this concern and our review will focus on HS1 Ltd's capability to identify and deliver efficiencies.

As part of our last PR we required HS1 to improve the quality of its asset data. We understand that HS1 Ltd has made progress on this, as well as how it uses this data in decision-making and how it reports on data quality. During PR24, we will challenge HS1 Ltd to maximise the value it is getting from its increased evidence base, to inform its modelling of forecast costs. Our approach will consider both top-down benchmarking and reviewing a proportionate amount of bottom-up validation, for both route and stations.

- 2.5 The concession agreement allows for expenditure on “specified upgrades” or other upgrades to the capability or capacity of the network, that may be proposed by either HS1 Ltd itself or the SoS.
- 2.6 The concession agreement states that “specified upgrades” means major upgrades of the signalling system, control systems or trackform. Detailed discussions during PR19 concluded that, as agreed during PR14, HS1 Ltd’s proposed upgrade to the European Rail Traffic Management System (ERTMS) signalling system should be treated as a Specified Upgrade.
- 2.7 HS1 Ltd will need to provide adequate information on the Specified Upgrades or other upgrades to be carried out in CP4 and demonstrate that the costs will be efficiently incurred. In addition, HS1 Ltd will have to provide details of the resultant additional investment recovery charge along with evidence that those amounts are of a level that can be borne by operators on the network. This is likely to include an earlier submission to cover preparatory works for the upgrade to its signalling system, which HS1 Ltd has indicated it intends to request in advance of funding of the full project in CP5.
- 2.8 We understand that HS1 Ltd’s plans are also expected to present justified traffic demand forecasts compared against asset capability to demonstrate when the capacity or capability of the route may need to be enhanced through a future programme of Specified Upgrades.

Specific stakeholder feedback and our response

EIL agreed with the treatment of ERTMS as a specified upgrade, and did not object to HS1 Ltd’s proposal to undertake scoping work “*provided this does not pre-empt the treatment and funding of the main works*”. HS1 Ltd’s response proposes exploring a potential alternative approach to the treatment of ERTMS, while we note that DfT’s response also proposes exploring solutions around the costs of the upgrade. We welcome DfT and HS1 Ltd working together on the options that they have each raised: in HS1 Ltd’s case “*where the ERTMS costs might be allocated across a Renewal component and Specified Upgrade*

component”, and in DfT’s “to consider options around the CA definition of specified upgrade” in order to consider the impact of the resultant charges on operators.

Financial framework

- 2.9 The financial framework sets the rules and guidelines for a range of financial issues that determine how HS1 Ltd is funded to operate, maintain and renew its rail network, and renew its station assets.
- 2.10 In PR24, we will determine the regulatory treatment of a number of key issues affecting HS1 Ltd’s financial framework. These include:
- (a) the allocation and management of financial risk;
 - (b) forecasts and arrangements for the escrow accounts, including the profiling of payments by operators;
 - (c) our approach to assessing and monitoring HS1 Ltd’s efficiency; and
 - (d) the treatment of corporation tax, inflation indexation and authorised investments on the escrow accounts.

Financial risk

- 2.11 HS1 Ltd is exposed to a range of risks. These include macro-economic risks, like inflation and interest rates as well as specific risks, such as uncertainty in the supply chain and demand. As a general principle, we would expect that risks should be borne by those best placed to efficiently manage them. There are a number of recognised strategies to mitigate risk, e.g. using insurance to transfer the risk to another party. Also, we must have regard to the terms of the Concession Agreement and stations leases, where they set out requirements for risk.
- 2.12 As the future is inherently uncertain, some risks will materialise while others will not. To ensure the HS1 network is adequately funded, and remains financially sustainable, it is important to consider the risk landscape and ensure that HS1 Ltd recovers an appropriate and proportionate level of income from operators to cover risk.

- 2.13 When calculating the charges on operators in PR24, we would expect to review HS1 Ltd's contractual arrangements with NR(HS) and Mitie Plc to consider whether the company's approach to financial risk follows best practice.
- 2.14 In addition to the costs of contracted services, HS1 Ltd has two other broad categories of cost:
- (a) HS1 Ltd's internal costs, such as staff costs and office running costs; and
 - (b) Pass-through costs, where HS1 Ltd procures a commodity or a service on behalf of its customers, such as electrical power.
- 2.15 Once the level of income has been established in the calculation of the charges, HS1 Ltd bears the risk of any cost increases to its own costs (and also receives the benefit of any cost reduction). In contrast, movements in industry costs are subsequently passed through to customers. This means that customers receive the benefit or bear the cost of any changes to the original assumptions.

Specific stakeholder feedback and our response

We asked stakeholders how the financial framework could facilitate improved decision-making to better align incentives and allocate risk appropriately. We also asked for comments and suggestions on approaches to risk and uncertainty.

In relation to risk pricing in the system, HS1 Ltd, NR(HS) and passenger operators all agreed that it should be allocated to the party best able to manage it. However, operators expressed their concern that because of the pass-through of costs, HS1 Ltd and its contractors are not incentivised to reduce charges which cover risk. EIL asked that the regulator step in to bring about efficiencies.

Further to our PR19 recommendation, we have seen evidence that HS1 Ltd has worked to review risk in the HS1 system. We welcome the commitment in its response to inform stakeholders during PR24 how risk is currently managed and who holds what risk, with a view to identifying opportunities to improve risk management and possibly reduce cost.

Global and national events since the last periodic review (2019) have highlighted the level of uncertainty which the HS1 system is facing. These events have put unprecedented financial strain on the operators on the HS1 network, as well as on railway users. In 2022, HS1 Ltd and operators proposed new mechanisms to re-purpose escrow funding to mitigate the impacts of financial strain elsewhere in the system. This proposal was not achievable within the current legal framework, but highlighted the lack of clarity around

other mechanisms to deal with uncertainty in the HS1 system. Learning lessons from these events, we are proposing a more holistic approach to managing uncertainty in PR24.

In PR24 we will work with all HS1 stakeholders to better understand the uncertainties they face and the package of mechanisms which already exist to deal with uncertainty, in their business-as-usual activities and contractual arrangements. Where ORR has mechanisms within our control in the PR24 process, we will deal with risk in a transparent manner that recognises the financial strain on the system but ensures that our decisions appropriately balance our duties, and the effects on current and future operators. Where there is still uncertainty outside of our control, we will clearly identify this and then work with HS1 Ltd and other stakeholders to ensure it is understood and is monitored. In addition we will ensure that stakeholders are clear on the mechanisms available to deal with this uncertainty, if outcomes are more adverse than predicted.

Escrow accounts

- 2.16 The concession agreement and stations leases require funding for renewals to be held in escrow accounts operated jointly by the SoS and HS1 Ltd throughout the concession and lease terms. The escrow account arrangements are the mechanisms through which HS1 Ltd secures the required outcomes of the route asset stewardship purpose and stations life cycle purposes. The process is intended to smooth charges over time to avoid cost shocks to operators, intergenerational inequity for new entrants to the market or the build-up of a potentially un-fundable backlog of renewals, including after the end of the concession and leases..
- 2.17 We have a role in determining the value of deposits into the escrow accounts. HS1 Ltd would need to fund any shortfall in the escrow accounts over the concession and lease periods, if renewals were needed but there was insufficient funding in the escrow account at that time. Given the purpose of these funds in the concession agreement and leases, HS1 Ltd must make adequate provision in its forecast for the renewals annuity and for its forecast renewals activities. This should give due consideration to current challenges around inflation and emerging lessons learned, as the volume of renewals increases during CP3.
- 2.18 We set out our approach to the 40-year calculation period in paragraphs 5.17 – 5.24 of our PR19 Final Determination of route funding. In summary, our approach aims to smooth the level of charges between control periods; is consistent with the principle that users should pay for their use of the assets, rather than paying for the renewals which happen to be required at that time; and supports intergenerational equity. It is also consistent with the asset stewardship purpose set out under Schedule 10 of the concession agreement, which requires HS1 Ltd

to secure the operation, maintenance, renewal and replacement of the HS1 Railway Infrastructure in accordance with best practice and in a timely, efficient and economical manner as if HS1 Ltd were responsible for the stewardship of that infrastructure for the period of 40 years following the date of those activities. We intend to maintain this approach for PR24.

- 2.19 There is a degree of flexibility within the general duty set out in the concession agreement, which requires HS1 Ltd to achieve the asset stewardship purpose to the greatest extent reasonably practicable, having regard to all relevant circumstances. Therefore, the consequence of the level of charging on operators should be taken into account by HS1 Ltd when determining the amount for renewals charges, and in turn by ORR when considering whether to approve the 5YAMS as being consistent with HS1 Ltd's general duty and when setting charges.
- 2.20 Our Section 4 duties under the Railways Act 1993 include a requirement that we exercise our functions in a manner which, amongst other considerations, promotes the use of the railway network in Great Britain for the carriage of passengers and goods, and the development of that railway network, to the greatest extent that we consider economically practicable. Our approach to PR24 will take these factors into account. However, our determination must still meet our obligations under the Concession Agreement, to ensure HS1 Ltd's plans are consistent with its duties in terms of funding for renewals. For example, our PR19 determination achieved a balance between increasing charges from the previous control period, to address historical underfunding and to prepare for long-term peaks in renewals, while also reducing charges from what was initially proposed in the draft 5YAMS, through efficiencies and treatment of risk, to ensure costs could be borne by operators.
- 2.21 In PR19, we made a number of changes to our calculation of the renewals annuity. These changes made the calculation more robust and recognised that the escrow account had been underfunded in CP1 and CP2 and that long-term renewals cost forecasts were rising. Given reduced services in CP3 following the pandemic, it is likely that the escrow account has also been underfunded in CP3.
- 2.22 Since PR19, the industry has been dealing with the effects of the pandemic and the resulting lower levels of revenue. This lower level of revenue is likely to continue into CP4. Similarly, the lower number of train services since the pandemic has meant that the cost of charges per train is higher in CP3 (as the fixed costs are spread between fewer trains) and the number of trains may remain lower into CP4.

- 2.23 For PR24, a key issue will be how we balance the requirement to recover the costs of renewals over 40 years in a sustainable way, with the financial effect on existing and future operators. In establishing an appropriate level of balance, we will use our duties and the requirements of the concession and stations leases. How the financial framework deals with risk and uncertainty is a key issue, to be considered together with how the revenue required to cover the costs of the renewals annuity is profiled over time and incorporated into charges.

Specific stakeholder feedback and our response

We asked stakeholders for factors that we should take into account when considering the level of charging for renewals of the HS1 network, including the impact on operators.

All operators who responded agreed that the target should be a reduced cost-per-train to protect the industry's recovery after the pandemic.

As per our approach to uncertainty noted above, we aim to work with HS1 Ltd and operators to reach the best possible understanding of future scenarios for train volumes and cost-per-train. But, we recognise that there is a complex interdependency between cost and train volumes and there will be significant uncertainty in any assumptions. We will expect HS1 Ltd's plans to include appropriate measures and a package of mitigations, to ensure there is enough resilience to satisfy the Concession Agreement and stations leases, while still considering the impact of charges on operators, if assumptions about train volumes (or other assumptions) are incorrect.

The Campaign for Better Transport's response encouraged consideration during PR24 of the potential introduction of new services, as well as better integration with existing European services and the reduction of disruption due to border controls at St Pancras further to the UK's exit from the European Union. We are aware that HS1 Ltd undertakes various initiatives on these factors to encourage network usage, working with the UK Government and operators to do so. Our approach will consider any specific proposals to deal with these issues, under our Section 4 duties under the Railways Act 1993.

Reporting efficiency

- 2.24 It is important that HS1 Ltd helps to demonstrate that it is delivering efficiently for its customers, by transparently reporting on it.
- 2.25 As part of PR19, we determined an efficient level of cost for the operations, maintenance and renewal of the route infrastructure. The largest element of HS1 Ltd's cost is its contract with NR(HS). At PR19, NR(HS) committed to an efficiency

improvement of 6.7% across the five years of CP3, which it has outperformed annually thus far.

- 2.26 In PR19, we also determined that HS1 Ltd should establish a research & development programme to drive long-term efficiency. We are monitoring this within CP3 and we have seen that HS1 Ltd's research & development programme is targeting the key cost drivers (in particular track renewals) and is generating opportunities for long-term savings.
- 2.27 In PR19, DfT applied an efficiency overlay of 2.0% per year to HS1 Ltd's plans for renewing stations over CP3 and CP4, and a 0.6% per year frontier shift overlay beyond that.
- 2.28 In terms of our approach to PR24, we will review the proposals for efficiency initiatives within HS1 Ltd and through its management of its supply chain. We will also review HS1 Ltd's planned CP4 renewals in detail and discuss scope efficiencies (identifying work which does not need to be done) and cost efficiencies (delivering the same outputs at a lower cost).
- 2.29 During PR19 (and in earlier periodic reviews) HS1 Ltd had limited data on renewals, or maintenance of assets approaching life-expiry, because the assets were still relatively new. Since PR19, HS1 Ltd has gathered significantly more asset data and our approach to reviewing efficiencies in PR24 will focus on this data.

Specific stakeholder feedback and our response

We asked stakeholders for views on our approach to monitoring HS1 Ltd's cost efficiency.

Passenger operators asked for more visibility of efficiency reporting, as well as more forward-looking indicators of efficiency.

We agree with this feedback and we will continue challenging HS1 Ltd to present clear proposals and leading indicators of their successful implementation, as part of the PR24 process. This will particularly help when reporting on stations spending, where a portion of the costs (i.e. those for operations and maintenance) are unregulated.

Inflation

- 2.30 Broadly, inflation risk can be split into two categories: general price inflation, which covers overall inflation within the economy; and input price inflation, which covers

the increase in costs of individual items, such as steel, relative to the level of general inflation. As part of its plans, HS1 Ltd needs to produce a forecast of the efficient level of input price inflation. In relation to operations and maintenance, we understand that HS1 Ltd is tied to indexing by the retail price index (RPI) by its contractual arrangements with suppliers. So, our approach to PR24 will only consider the appropriate index for renewals cost inflation.

- 2.31 The [ONS methodology on consumer price inflation statistics](#), last updated in October 2016, recommends the use of the cost price index (CPI) as a more robust general inflation index than RPI. From 2019-20, we have used CPI in our regulation of Network Rail Infrastructure Limited, for all of its income and expenditure. This change did not affect Network Rail's overall revenues as we also adjusted the input price assumption. But, it did change the profile of charges, so that the Year 1 charge was higher and the expected increases each year were lower.
- 2.32 Given the contractual arrangements on operations and maintenance it is not possible for us to use CPI instead of RPI for all of HS1 Ltd's income and expenditure. We also note that the IRC paid by operators to HS1 Ltd, which is unregulated, is indexed by RPI in line with the terms of the Concession Agreement. So, in PR19, for these reasons we retained the use of RPI.

Specific stakeholder feedback and our response

We asked stakeholders for factors that should determine the appropriate inflation index for regulated renewals charges at PR24.

While operators noted that HS1 Ltd is tied to RPI increases in its own costs, they supported a move to the industry-standard CPI, which could make charges more affordable. We note that while HS1 Ltd would not support such a move unless changes are made to the Concession Agreement and stations leases, DfT has indicated in its response that it would be open to considering proposals to do so, if it would deliver a more financially sustainable system. However, the key issue as we explain above is that changing the index to CPI does not change overall charges but it does change the profile of charges.

In PR24, we will continue to work with HS1 Ltd, DfT and other stakeholders, to identify the optimal approach to inflation indices and the efficiency of our input price assumption, ahead of our draft determination.

Authorised investments

2.33 HS1 Ltd is allowed by the Concession Agreement and stations leases to invest up to 90% of escrow funds. We expect proposals from HS1 Ltd on the proportion of funds that it plans to invest and forecast rates of return for those funds in CP4 and beyond.

Specific stakeholder feedback and our response

We asked stakeholders what we should take into account when accepting or determining HS1 Ltd's approach to authorised investments at PR24.

HS1 Ltd and SETL noted the restrictive nature of the Concession Agreement requirements on escrow banks. We welcome HS1 Ltd and DfT's feedback that they are jointly working to address these issues early in the PR24 process. Changing these restrictions on the investment of escrow funds could increase the return on the investments without unduly affecting the level of risk. Both these factors affect stakeholders, so their views are important. We will continue to engage with HS1 Ltd and DfT for updates on this work and keep stakeholders informed.

We received no responses on the appropriate proportion of the escrow account that HS1 Ltd should invest. We will await HS1 Ltd's proposals during PR24.

Outperformance sharing

2.34 The Operator Agreement between HS1 Ltd and NR(HS) includes a mechanism by which NR(HS) shares outperformance against operations and maintenance costs for the last three years of each control period. The benefits are to be split 50% NR(HS), 30% to be shared between operators and 20% to HS1 Ltd.

2.35 The Concession Agreement and stations leases do not contain any outperformance sharing requirements in respect of operations and maintenance costs. However, there are outperformance sharing mechanisms for the treatment of renewals efficiencies.

2.36 Outperformance on renewals can be allocated 70% towards future renewals (that is, retained in the escrow account) and 30% to HS1 Ltd, for both the route and stations. Whether any payments arise in accordance with this mechanism is dependent on us: determining that HS1 Ltd has complied with its general duty, asset management strategy and life cycle reports/5YAMS; and outperformed against plans set out in its previous life cycle report/5YAMS; and the escrow

account balances are at the level necessary for HS1 Ltd to comply with its general duty in so far as it relates to renewals.

- 2.37 As part of a periodic review, we must review these allocations for the route escrow account (there is no comparable mechanism for stations renewals spending). In PR24 we will scrutinise any new proposals from HS1 Ltd for this mechanism as part of our overall review of incentives, alongside the views of stakeholders.

Specific stakeholder feedback and our response

We asked stakeholders for relevant factors for assessing the allocation of outperformance against forecast route renewals costs to incentivise efficiency.

HS1 Ltd and NR(HS) responded saying that the outperformance clause for operations and maintenance spend works better than the clause for renewals set out by the Concession Agreement. SETL was also open to a review of the latter to enable incentives to lie with the party delivering the work.

DfT's response noted that they would be open to amending the Concession Agreement to ensure that it incentivises an efficient outcome which delivers for passenger and freight customers.

Any change to the Concession Agreement would impact our PR24 process. Our approach will be to continue with PR24 based on the current drafting of the Concession Agreement and stations leases. If HS1 Ltd wish to propose changes to the Concession Agreement they should make their proposal to DfT as soon as possible. For any changes to take effect in time for ORR to consider them in PR24, the process of amending the Concession Agreement will most likely need to commence by roughly May/June 2023. This should allow the legal framework to be settled before HS1 Ltd submits its plans to us early the following year.

Charges and incentives

- 2.38 As part of PR24, we expect HS1 Ltd to provide evidence that the charging structure for its route and stations is consistent with the charging requirements in Part 4 and Schedule 3 of the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016.

Charging structure

- 2.39 For the route, the components of HS1 Ltd's track access charges include the Investment Recovery Charge (IRC), Operations Maintenance and Renewal Charge (OMRC), performance and possession regime costs and a capacity reservation charge. HS1 Ltd's charges recover avoidable costs (costs for specific services), variable costs, fixed allocated costs and other common costs. Different elements are allocated in different ways, as set out below.
- 2.40 Avoidable costs are allocated to the relevant operator (for example, the costs relating to track between Ashford and the Channel Tunnel are allocated to international operators). Where there is more than one operator, allocation is based on a share of the timetabled minutes:
- (a) variable costs of shared infrastructure are allocated using an engineering model on an 'equivalent gross tonne miles' basis (i.e. heavier trains running faster tend to get a higher share);
 - (b) costs that vary with length of track but not with the level of traffic (e.g. plant, signalling, electrification) are allocated using the share of timetabled minutes;
 - (c) other common costs are split by the share of timetabled minutes; and
 - (d) freight operators pay only incremental costs.
- 2.41 The structure of charges determines how these costs should be recovered from different operators and also how to incentivise efficient use of the network over time. For example, once a renewals annuity is calculated that amount of revenue needs to be incorporated into HS1 Ltd's charges.
- 2.42 The allocation of the renewals annuity between charges for direct and indirect costs is an especially important issue for PR24 given the effect of the pandemic on train service levels and revenue. As well as the issues mentioned below we will consider the profile of renewals annuity charges within CP4, and over time.
- 2.43 HS1 Ltd carried out a review of its charging structure (not including the IRC) which concluded in August 2022. HS1 Ltd stated that its strategic aim for the review was to encourage greater network usage to achieve lower costs overall as well as promoting the sustainability of the HS1 railway in the longer term.
- 2.44 As a result of its review, we understand that HS1 Ltd intends to implement the split between direct and indirect costs based on a review of NR(HS)'s costs in consultation with operators during PR24. However, HS1 Ltd proposed no changes

to the split between international and national operators; and the split between passenger and freight operators.

- 2.45 We understand that HS1 Ltd also intends to take forward a revised approach to pass-through charges to include those that HS1 Ltd does not control.

Specific stakeholder feedback and our response

We asked stakeholders for views on the appropriate structure of charges for CP4 that would incentivise efficiency and take into account the impact of renewals charges on operators.

We note from HS1 Ltd's response that it is taking forward a review of the split of costs between passenger operators. EIL has asked that, when we receive HS1 Ltd's proposals, we consider whether differences between the international passenger market and other markets served by the HS1 route are sufficiently significant that it merits a differentiated allocation of fixed and common costs.

We will continue to work with HS1 Ltd and operators in PR24 to review the charges and incentives of the resultant framework. As suggested by EIL, and as per our approach to uncertainty set out earlier in this document, we will consider the wider mechanisms set out in the framework contracts for access to HS1, as part of a package of mitigations to deal with uncertainty.

Determining charges

- 2.46 HS1 Ltd will provide its initial views on charges in its draft 5YAMS and LCRs. Together with any conclusions we draw from our independent scrutiny, this will form the basis of our charging calculation. In the event that we consider HS1 Ltd's proposals in the 5YAMS and LCRs to be deficient, we will set out our reasons why and HS1 Ltd must then re-submit an amended 5YAMS and LCRs within the prescribed timescales of the periodic review.

Performance and possession regimes

- 2.47 The performance regime is part of the charging system designed to encourage all parties to minimise disruption and improve the performance of HS1. Through the regime, operators and HS1 Ltd bear the financial impact of unplanned service delays and cancellations. The regime is designed to incentivise all parties to minimise performance-disrupting incidents and to contain their impact when they occur. The regime includes:

- (a) payment thresholds (the point at which performance is sufficiently good or bad to trigger payments from operators to HS1 Ltd, or from HS1 Ltd to operators); and
- (b) payment rates (the amount, per minute delay, that one organisation pays another because of its below-threshold performance).

2.48 Under the possessions regime, HS1 Ltd compensates its operators for any planned disruption it causes. As part of PR24, we would expect HS1 Ltd to undertake a review of the incentives framework, to ensure that it is appropriately incentivised to deliver the required the levels of performance on the HS1 network and to benefit from past experience.

Specific stakeholder feedback and our response

We note that HS1 Ltd and NR(HS) are working on structural initiatives that incentivise swift delay recovery, ahead of engaging stakeholders on their proposals. GB Railfreight has asked that, as this review takes place as HS1 Ltd is encouraging greater network usage, including by freight, that these plans ensure that freight is not priced off the HS1 network *“due to what can be seen as unreasonable performance regimes.”*

We welcome the work of HS1 Ltd and NR(HS) on structural initiatives to improve delay recovery. We will expect to see that the incentives regime still works to encourage efficient operation of the railway, drives the right behaviours and is set up to take into account any entry of new operators in CP4.

3. Process for PR24

Concession Agreement and stations leases process

3.1 When ORR took on responsibility for the regulation of HS1 stations in 2022, we agreed with DfT and HS1 Ltd to align the timescales for the periodic reviews of route and stations. The respective documents and their publication requirements are found below.

	Concession Agreement publication	Stations leases publication	PR24 milestone
30 months before end of control period	ORR initial consultation	ORR initial consultation	30 January 2022
26 months before end of control period	ORR Periodic review process document	ORR Periodic review process document	31 January 2023
Following publication of process document	HS1 Ltd development of inputs for periodic review		
13 months before end of control period	HS1 Ltd Draft five year asset management statement	HS1 Ltd Draft life cycle reports	29 February 2024
10 months before end of control period	HS1 Ltd Final five year asset management statement	HS1 Ltd Final life cycle reports	31 May 2024
6 months before end of control period	ORR draft determination	ORR draft determination	30 September 2024
60 business days before end of control period	ORR final determination	ORR final determination	6 January 2025
15 business days after ORR final determination	None	HS1 Ltd Revised asset management strategy (including life cycle budget)	27 January 2025
20 business days after ORR final determination	HS1 Ltd Revised five year asset management statement	HS1 Ltd Revised life cycle reports	3 February 2025

3.2 Further to the conclusion of this process, we will work with HS1 Ltd on the implementation of the periodic review through changes to the passenger and

freight access terms; access contracts; and station access conditions, by 1 April 2025.

Next steps

- 3.3 Following the publication of this approach document, we will continue to engage with HS1 Ltd and its contractors on their inputs to PR24, and also to engage with the other HS1 stakeholders. In particular, this engagement will focus on furthering our understanding of the stations assets (which we are reviewing for the first time), considering ways of dealing with the financial strain on the system and bettering the understanding of uncertainties, in line with our new approach.



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