ORR's approach to PR19

January 2018

Contents

1. Executive summary

1.1 This document sets out the approach ORR will take to the 2019 Periodic Review of HS1 Ltd (PR19). It sets out ORR's approach reached as a result of our consideration of responses received to our PR19 Initial Consultation document.

1.2 Broadly, ORR's approach is in line with the proposals made in the initial consultation document. This is largely because the representations we received from respondents were supportive of the proposals ORR made, and consistent with views we have heard at stakeholder sessions and workshops. Where respondents have raised novel or differing viewpoints, we have addressed these in this document. However, if readers of this document require further clarity or explanation, they should contact ORR using the details listed at paragraph 2.17 of this document.

1.3 The document takes each question ORR asked in turn, summarising the responses that we received, and setting out our response. Again, readers are invited to contact ORR if they require further clarification or explanation on any of these points.

1.4 For reference purposes, this document also confirms the high-level timetable and key milestones for the completion of the PR19 project.

1.5 ORR wishes to reiterate the importance of stakeholder engagement to the PR19 process. HS1 Ltd has adopted an open, transparent and cooperative approach to stakeholder engagement, both with its customers and with ORR as regulator. We encourage all stakeholders to continue to engage with HS1 Ltd on a similar basis for the duration of PR19 and beyond.

2. Introduction and background

This section provides background information, the purpose and structure of this document, and ways to get in touch and engage with the ongoing PR19 process.

The HS1 network

2.1 High Speed 1 (HS1) is a 109km high-speed rail line connecting London St Pancras through Kent to the Channel Tunnel. It is currently the UK's only high-speed rail line, serving four stations (St. Pancras, Stratford, Ebbsfleet and Ashford) along the route.

2.2 International services are currently operated by Eurostar International Limited (Eurostar), travelling direct to France and Belgium. Domestic services began in December 2009, operated under a UK franchise agreement by Southeastern and stopping at all the stations on the high-speed line as well as on the mainline railway network in Kent. Freight services have been developing on the route since 2011, and in recent years there have been between 400 and 700 services a year, mostly operating at night. By the start of Control Period 3 (CP3, which runs from 1 April 2020 to 31 March 2025) international and domestic services will have been running on the network for over a decade, meaning that it should no longer be regarded as a new asset but rather an embedded operational railway.

HS1 Ltd

2.3 HS1 Ltd holds a concession (until 2040) to operate, maintain and renew the whole line. The primary business of HS1 Ltd is to provide high-speed rail access to domestic and international passenger and international freight services. HS1 Ltd's revenue comes from access charges which are paid by train operators to use HS1 Ltd's track and stations. HS1 Ltd also receives income, which is not regulated, through its retail facilities and car parking at stations. Unlike Network Rail Infrastructure Ltd (NRIL, who operate the mainline railway network), HS1 Ltd does not receive any government grant.

2.4 The Concession Agreement [links to HS1 website] sets out the terms of the agreement between HS1 Ltd and the Secretary of State for Transport (SoS), who owns the HS1 railway infrastructure. This includes the charging framework; minimum operational standards including proper asset stewardship; protections against termination; and protection from material adverse changes.

2.5 Many of the functions which HS1 Ltd must perform as infrastructure manager (such as track operation and maintenance, signalling and timetabling) are contracted out to Network Rail (High Speed) Ltd (NR(HS)). The relationship between HS1 Ltd and NR(HS) is governed by an Operator Agreement (OA), which is a commercial agreement between the parties and the terms are not subject to regulatory approval. However, as explained in later sections, costs paid under the OA, and any outperformance incentives between the parties are relevant to the review.

2.6 HS1 Ltd's performance, both in terms of operations and asset management, has been good. In 2016-17 only 0.26% of services were delayed by HS1 Ltd-attributable incidents. Further information on HS1 Ltd's performance during the current control period are reported in our annual reports on HS1 Ltd.

ORR's role in regulating HS1

2.7 In terms of compliance with health and safety legislation, HS1 is regulated in the same way as other railway networks in Great Britain. Whilst HS1 Ltd and NR(HS) both have safety obligations, NR(HS) is the safety duty holder for the network and the infrastructure manager under the Railways and Other Guided Systems (Safety) Regulations 2006.

2.8 For a number of other defined aspects, we regulate HS1 Ltd under the terms of the Concession Agreement. ORR's role includes the monitoring of operational performance (and the ability to enforce non-compliance); the monitoring of asset stewardship obligations (which must be delivered as if the company is responsible for the stewardship of the infrastructure for 40 years following the date at which any activities are planned or carried out); the carrying out of a five yearly periodic review of access charges; and to act as an appeal body. Schedule 10 of the Concession Agreement sets out the purpose, in general terms, and the process for conducting periodic reviews.

2.9 In addition to the Concession Agreement, we have responsibilities concerning the regulation of HS1 Ltd under The Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016 (the Regulations) [links to government legislation website]. These functions include: a pre-approval role for new and amended framework agreements; ensuring that charges for use of the infrastructure comply with the requirements of the Regulations; and ensuring, through our rights and responsibilities under the Concession Agreement, that HS1 Ltd is provided with incentives to reduce the costs of provision of infrastructure and access charges.

2.10 We have entered into a Memorandum of Understanding with the SoS in respect of the performance of our role. Our approach to our economic regulatory functions in respect of the HS1 network is outlined in our 2009 Regulatory Statement.

2.11 This suite of documents sets the broad framework for conducting a periodic review and determines its scope.

Structure of this document

2.12 Chapter 3 sets out the regulatory framework for PR19.

2.13 Chapter 4 sets out the responses ORR received to the questions in its initial consultation document, and ORR's views on these responses.

2.14 The Annex contains a list of respondents and the date of their response. All responses can be found on our PR19 Initial Consultation webpage.

2.15 ORR would encourage all stakeholders and interested parties to continue to engage fully with the PR19 process.

2.16 If parties do have any particular concerns or comments, they should discuss these with HS1 Ltd in the first instance. ORR supports the open and transparent approach adopted by HS1 Ltd so far, and encourages all stakeholders to continue in this manner.

2.17 ORR remains open to representations – provided that these have first been discussed with HS1 Ltd. Any correspondence on PR19 should be sent to:

Debbie Daniels
Office of Rail and Road
1 Kemble Street
London
WC2B 4AN
PR19@orr.gov.uk

3. HS1 periodic review framework

This section provides an overview of the periodic review framework and outlines the scope, which is prescribed in the contractual framework.

Outputs of a periodic review

3.1 The 2014 Periodic Review of HS1 Ltd (PR14) was the first periodic review of HS1 Ltd. PR14 set some of the elements of HS1 Ltd's access charges, the outputs that HS1 Ltd was required to deliver, and the efficient cost for delivering these outputs during Control Period 2, which runs from 01 April 2015 to 31 March 2020. PR14 also established the 'regulatory framework' for CP2. This included the financial framework within which HS1 Ltd operates and the incentives that act on both it and train operators to deliver and outperform against that determination.

3.2 PR19 will be the second periodic review of HS1. It covers CP3, which runs from 1 April 2020 to 31 March 2025. The outputs of the review will be the same as in PR14 but conclusions may differ as the network is five years older. These are:

- whether HS1 Ltd has had regard to, and fulfilled, the requirements and obligations set out in the Concession Agreement;
- the outputs HS1 Ltd will deliver in CP3;
- HS1 Ltd's asset management plans for CP3 and beyond;
- the regulatory framework for HS1 Ltd in CP3;
- the structure of HS1 Ltd's charges; and
- the level of HS1 Ltd's regulated access charges.

Scope of the review

3.3 The scope of the review is determined by the arrangements set out in three key reference documents: the Concession Agreement, the Regulations and ORR's 2009 Regulatory Statement.

Concession Agreement

3.4 The purpose of a periodic review is to enable ORR to approve relevant matters such as the Operations, Maintenance and Renewals charge (OMRC) defined in the Concession Agreement following a fair, transparent and proportionate procedure. The process is designed to be as consistent as possible with the broad approach taken by ORR for periodic reviews on the mainline network, with charges being determined for each control period lasting five years.

3.5 Our regulatory statement confirms that any periodic review will focus on the OMRC. The OMRC comprises charges in respect of fixed and common costs and charges in respect of the cost that is directly incurred as a result of operating train services. Our conclusions will not take into account the actual or expected income that HS1 Ltd receives from property (including station and depot lease charges and station access charges); retail; car parking; or from some of the other charges. This is because the Concession Agreement states the specific sources of funding that we can take into account when we approve or determine the level of OMRC and those sources are excluded.

3.6 Nevertheless, as set out below under the Regulations, ORR has a statutory duty to ensure that charges are compliant with legal requirements. ORR will also identify separately the costs for NR(HS) and the other costs of HS1 Ltd.

3.7 The Concession Agreement also sets out HS1 Ltd's General Duty concerning stewardship of the HS1 network. In simplified terms, this is to secure the operation, maintenance, renewal, replacement, and upgrade of the infrastructure in a timely, efficient and economical manner. This should be undertaken in accordance with best practice (defined as the exercise of that degree of skill, diligence, prudence, foresight and practice which would reasonably be expected from a skilled and experienced infrastructure manager engaged in the provision of high-speed railway infrastructure). It should also be done as if the company is responsible for the stewardship of the infrastructure for 40 years following the date at which any activities are planned or carried out.

The Regulations

3.8 The Regulations require us to ensure that charges for the use of railway infrastructure imposed by HS1 Ltd comply with the requirements in Part 4 and Schedule 3. They state that an infrastructure manager must be provided with incentives to reduce the costs of provision of infrastructure and the level of access charges. They require ORR to exercise its rights and responsibilities under the Concession Agreement in order to ensure compliance with this.

3.9 They also require HS1 Ltd to establish a performance scheme, ensuring that the basic principles apply in a non-discriminatory manner throughout the network which relates to the scheme.

ORR's 2009 Regulatory Statement

3.10 In October 2009, we published a statement setting out our approach to the regulation of the HS1 network. This sets out the elements of the regulatory arrangements for the HS1 network, and our approach to carrying out these functions. As indicated in the regulatory statement, in the course of a periodic review, we will approve or determine the level of OMRC that would be incurred by an efficient operator and set a level of OMRC consistent with that.

Exclusions from scope

3.11 Some elements that make up HS1 Ltd's charges are not included in the scope of PR19 by virtue of the exclusions identified in the Concession Agreement. These are:

- the Investment Recovery Charge (IRC). This charge is levied on each passenger train service (freight services do not currently pay) on the network on a 'per minute' basis. This charge will be levied for the duration of the current concession (until 2040) with the purpose of recovering the long-term construction costs of the HS1 network;
- the Performance Cap (as defined in Schedule 8 of the Passenger and Freight Access Terms), relating to a cap on performance payments made under Schedule 8;
- other unregulated income. HS1 Ltd operates a 'dual till' model whereby the Concession Agreement does not permit us to take the actual or expected unregulated income into account (such as the IRC, or income from property, retail, media and car parking at stations); and
- areas covered by a separate stations review led by the DfT, which will set out its approach in early 2018.

ORR's statutory duties

3.12 We have statutory duties that we must balance when reaching our decisions on PR19. Our general duties are set out in Section 4 of the Railways Act 1993. They are not in any order of priority and it is for ORR to decide how much weight should be attached to each duty.

3.13 Given the concurrent periodic review of NRIL (PR18), it is helpful to explain the differences between the two, which largely reflects the way the UK government structured the concession compared to the way the mainline railway network is structured:

- PR19 will not be conducted under the process set out in the Railways Act 1993 (the Act), as is the case for PR18. Instead, as described above, it is governed by the Concession Agreement and, in terms of charging arrangements, by the Regulations. However, by virtue of the Regulations, our general duties under Section 4 of the Act do apply.

- The Concession Agreement limits the scope of PR19 and does not include the same jurisdiction in terms of regulating HS1 Ltd as ORR has through NRIL's network licence. Additionally, as HS1 Ltd is not funded by government there is no High Level Output Specification (as there is for the mainline network) in which government specifies the outputs to be delivered over the next control period. Neither is there a Statement of Funds Available issued in which government specifies the funds available to NRIL to deliver the specification.

4. Consultee responses and ORR approach

Timetable

4.1 Following consultation in March 2017, the timeline for PR19 has been revised to allow more time during the consultation process for HS1 Limited to carry out the planning and development of the Five Year Asset Management Statement (5YAMS), and for ORR to carry out the evaluation of the 5YAMS and prepare the Final Determination.

4.2 This has been done through amendments to Schedule 10 of the Concession Agreement to reflect lessons learned from PR14 with a view to:

- harmonising more closely with DfT's periodic review of stations;
- replacing the lengthy iterative process for the Final Determination;
- giving all parties more time to review both the draft 5YAMS and the Draft Determination; and
- allowing more analysis from actual CP2 data to be taken into account.

4.3 There will be three stages of work:

- **a consultation and development stage**: from now until February 2019. During this phase, HS1 Ltd will progress benchmarking and efficient cost analysis culminating in the production of a cost efficiency plan. Work will also be carried out on the structure and level of charges, including a proposal by HS1 Ltd on the level of OMRC. Consideration and any recalibration of incentives (such as the performance regime contained in framework agreements) will be carried out during this time. Finally, HS1 Ltd is expected to develop its asset management strategy and asset-specific policies. This work will all input to the development of HS1 Ltd's 5YAMS;
- **a consideration stage**: from February 2019 until the Final Determination in January 2020. During this phase, HS1 Ltd will complete its consultation on the 5YAMS which, once revised, will then be submitted for ORR's approval. ORR will scrutinise the 5YAMS and publish a Draft Determination for consultation in September 2019, before issuing a Final Determination in January 2020.
- **an implementation stage**: The process for implementing ORR's decisions is set out in HS1 Ltd's passenger and freight access terms. ORR will publish an implementation notice by the end of April 2020 that will implement the Final Determination through amendments to the track access contracts, Passenger Access Terms and Freight Access Terms.

4.4 Should the 5YAMS not be approved in full by ORR, HS1 Ltd will update the 5YAMS in the implementation stage in line with the Final Determination. This will give HS1 Ltd, ORR and stakeholders the benefit of being able to refer back to a single document during CP3.

Figure 4.1 below summarises the key milestones. This is designed to allow stakeholders to plan accordingly. It also clarifies specific roles and identifies the main decision points.

Figure 4.1: Key milestones

Proposed timetable		Concession Agreement requirement
Consultation and development stage		
28 September 2017- Complete	ORR publishes its first PR19 consultation.	*This must occur at least 30 months prior to the end of CP2.*
10 November 2017 - Complete	Consultation period on ORR's first consultation document closes.	
30 January 2018	ORR issues its Periodic Review Process Document (this document), thus notifying HS1 Ltd and stakeholders of the process it intends to adopt for the conduct of the next Periodic Review.	*This must occur at least 26 months prior to the end of CP2.*
Throughout 2018	HS1 Ltd prepares its plans in conjunction with its customers and stakeholders	
Five Year Asset Management Statement (5YAMS) Consideration Stage		
By 28 February 2019	HS1 Ltd submits draft 5YAMS to ORR and commences formal public consultation.	*This must occur at least 13 months prior to the end of CP2.*
By 31 May 2019	HS1 Ltd shall produce and submit to ORR the Final 5YAMS.	*This must occur at least 10 months prior to the end of CP2.*
May – Sept 2019	ORR scrutinises the finalised plans	
By 30 September 2019	ORR to issue Draft Determination and commence public consultation.	*This must occur at least 6 months prior to the end of CP2.*
By 30 November 2019	Final date for HS1 Ltd to revise the Final 5YAMS including making changes needed to address deficiencies identified by ORR, submit additional information or revise existing information.	*This must occur at least 4 months prior to the end of CP2.*

Proposed timetable		Concession Agreement requirement
By 7 January 2020	ORR to issue Final Determination.	*This must occur at least 60 business days prior to the end of CP2.*
Implementation Stage		
Latest 4 February 2020	HS1 Ltd submits revised Final 5YAMS in line with ORR Final Determination.	*This must occur within 20 business days of ORR's Final Determination.*
1 April 2020	Implementation of PR19 determination and start of CP3.	

4.5 As the review progresses there may be specific issues that occur which require additional intermediary steps. These will supplement the proposed timetable but will be planned in a manner that is transparent and allows the full engagement from stakeholders.

4.6 As shown in the timetable, the key input to the review is HS1 Ltd's submission of its 5YAMS, along with any supporting information (such as its business strategy, overall vision or any commercial strategy). This, and any other relevant information provided by stakeholders during the consultations, will be the evidence base for ORR's conclusions. It is therefore critical that HS1 Ltd's submission is of high quality, complete and on time. HS1 Ltd will need to demonstrate that its plans are robust and underpinned by sound analysis.

4.7 While it is HS1 Ltd's role to lead engagement with its stakeholders and the production of the 5YAMS, it is the ORR's role to provide independent challenge. If there are any deficiencies in the plan then ORR will undertake its own additional analysis. However, this is a backstop and we hope that it will not be necessary for us to do further analysis and that the Draft and Final Determinations will not contain many changes to HS1 Ltd's 5YAMS submission.

4.8 It is equally important that HS1 Ltd continues to build on its good engagement to capture views from existing customers, and a sense of the needs of future customers, in setting out what the network should deliver.

4.9 The Concession Agreement broadly sets out what HS1 Ltd needs to include in its 5YAMS, with its general composition including: CP3 outputs; elements of the regulatory framework including OMRC and the contractual performance and possessions regime; the asset management strategy; and a cost efficiency plan. HS1 Ltd will lead on the development of its CP3 outputs and it will engage with its customers and stakeholders before finalising the 5YAMS.

4.10 We intend to adopt a progressive approach during the review. We will work with HS1 Ltd to develop the detailed format and content of the 5YAMS and agree the requirements progressively rather than wait for the formal submission. This will include guidance on the types of supporting evidence that HS1 Ltd should provide. At this stage we anticipate that the 5YAMS is likely to include the following elements:

- a performance and infrastructure plan;
- a clear analysis of the efficient operation, maintenance and renewal (OMR) costs;
- definitions for the provision of cost information such as the definition of fixed and common costs;
- planning assumptions, such as inflation and traffic growth forecasts;
- the treatment of risk and contingency within cost estimates, particularly in relation to renewals;
- clarity on the distinction between renewals and 'Specified Upgrades'; and
- long term plans covering the 40 year future period look ahead to inform the assessment of funds payable by train operators into an Escrow account used for the funding of renewals.

ORR asked consultees for their comments on the timetable for PR19, or on the structure of the 5YAMS

Respondents' views and ORR approach

The Go-Ahead Group's response rightly identified that bringing the consultation stage forward means that much of the initial engagement falls during critical stages of ORR's concurrent periodic review (of Network Rail Infrastructure Ltd). The new process for periodic review of HS1 Ltd should mean that stakeholders get early and continuing insight into both ORR and HS1 Ltd's work for the next control period. Where possible, ORR shall seek to engage with PR19 stakeholders so as not to draw industry resource away from the crucial final stages of PR18.

The response from Eurostar noted that the new timetable aligns to the latest dates required by the revised Concession Agreement. It is true that the proposed timetable sets out the dates by which stages must be completed, but ORR shall seek to undertake tasks earlier than these dates if appropriate.

DB Cargo asked that freight issues and costs be identified and explained separately. As was the case with the 5YAMS for CP2, ORR would expect that HS1 Ltd would set out the issues it has identified for its freight customers, and the breakdown of freight costs, allowing ORR to assess these separately.

Health and safety

4.11 During CP2, ORR has undertaken a number of proactive inspections and supervision activities with NR(HS). These revealed a proactive attitude towards predicting defects and anticipating potential problems. As a result, we have no current concerns over the safety of the network. We will continue to:

- carry out proactive inspections, which are planned and targeted;
- consider applications for the renewal of NR(HS)'s safety authorisation and for exemptions from the Railway Safety Regulations;
- regularly liaise with NR(HS); and
- investigate incidents in accordance with ORR's processes.

4.12 During CP3, as the asset ages, there may be a need for more intrusive maintenance and that the level and type of work may differ from CP2. ORR will be seeking assurance that there are plans in place with the appropriate level of capability and capacity to address this challenge. We will also check whether the 5YAMS has included sufficient expenditure to comply with safety requirements.

Asset management

General

4.13 ORR will focus on compliance with HS1 Ltd's proposed strategy to deliver its contractual requirements in the Concession Agreement. This includes the need to carry out activities in accordance with best practice in a manner that is timely, efficient and economical and as if it were responsible for the stewardship of the infrastructure for 40 years following the date at which any activities are planned or carried out.

4.14 The infrastructure assets are currently in relatively good condition but the network will be over ten years old at the start of CP3. While the focus of PR19 will be mainly on HS1 Ltd's maintenance programme, there is also a need to examine the robustness and sustainability of the forward programme of renewals for later control periods. As such, HS1 Ltd needs to provide a long-term renewals plan in its 5YAMS.

Asset management strategy

4.15 HS1 Ltd is developing its 5YAMS in accordance with the terms of the Concession Agreement. The strategy is updated regularly to deal with ongoing delivery and HS1

Ltd produces an annual statement, which reports on delivery in the previous year and planned for the current year.

4.16 HS1 Ltd has continued to develop its asset management capabilities and is in the process of refining its policies, plans and strategies with its suppliers. It also intends to do further work in the areas of asset criticality; asset improvement (in particular whole life cost analysis); and revisions to its long term renewals plans. We consider that HS1 Ltd is making good progress in advance of the 5YAMS submission. These aspects of the plan are important to the evaluation of costs and consequently our decision on the required levels of payments to the Escrow account.

Asset sustainability

4.17 Whilst HS1 Ltd has a range of key performance indicators for customer experience that align with internal targets, it needs to develop measures that also reflect delivery of the asset requirements in the Concession Agreement. A key area is demonstrating that the infrastructure is being managed in a sustainable way for the length of the Concession Agreement and that it will be returned in the required condition at the end of the concession. This will be a principal driver in determining the level of renewal volumes which in turn will determine expenditure levels and, therefore, the required levels of payments to the Escrow account.

Specified Upgrades (enhancements)

4.18 The Concession Agreement has the facility to include Specified Upgrades or other upgrades that may be promoted by either HS1 Ltd itself or the SoS. Specified Upgrades include only ‘major upgrades of the signalling system, control systems or trackform’ and these could be used to deliver new functionality (such as the recent implementation of GSM-R) or enhancement of existing capabilities.

4.19 HS1 Ltd, as part of its 5YAMS, will need to provide adequate information on the Specified Upgrades or other upgrades that have been done in CP2, and plans for any to be carried out in CP3. It will also need to present well justified traffic demand forecasts and have considered whether the forecast asset capability of the route is sufficient to meet them, or whether the capacity or capability of the route may need to be enhanced through a programme of Specified Upgrades.

Cost reduction and efficiency

Cost reduction

4.20 While HS1 Ltd must produce plans that deliver the requirements of the Concession Agreement and comply with safety requirements, there may be opportunities to balance performance risk against maintenance or renewal interventions that could reduce OMR costs. Such opportunities may be small as operations and maintenance resources need to be sufficient to accommodate fault scenarios that may drive a higher resource requirement than the core planned preventative maintenance programme.

ORR asked consultees for their views on HS1 Ltd presenting options that comply with the Concession Agreement and safety obligations but with lower levels of asset performance to reduce charges.

Respondents' views and ORR approach

In its response, Go-Ahead Group stated that while it supported HS1 Ltd seeking opportunities to balance performance risk against maintenance and renewal interventions with a view to reducing OMR costs, this should not result in subprime levels of asset performance. ORR would want to see that any step-down in agreed performance was governed by appropriate controls and could be reversed in light of any change in understanding; the long-term sustainability of the asset must not be compromised by decisions taken in this area.

Eurostar, in its response, also supported HS1 Ltd using its increased asset knowledge since the last periodic review to present options on a cost/performance basis to allow understanding of the interplay between the two. ORR is supportive of this collaborative approach between HS1 Ltd and train operators to explore the relationship further.

We note that DB Cargo would also support HS1 Ltd presenting options that comply with the Concession Agreement and safety obligations but with lower levels of asset performance in order to enable stakeholders to make informed and balanced choices between levels of performance and charges. ORR is supportive of HS1 Ltd exploring opportunities to deliver the Concession Agreement stated performance more efficiently, subject to them not having any negative long-term sustainability impact.

Cost efficiency and benchmarking

4.21 In scrutinising HS1 Ltd's plans, our starting point will be the cost efficiency plan included in the 5YAMS. We expected that the main aspect for assessing efficiency would be the use of benchmarking (both top down and bottom up).

4.22 Benchmarking on a like for like basis is difficult as there are no direct comparisons. ORR has previously concluded that HS1 Ltd's international benchmarking analysis has not been mature enough to draw firm conclusions. HS1 Ltd is committed to developing its benchmarking analysis to allow comparisons with similar infrastructure managers across Europe, and potentially more widely, to try to quantify the efficiency gap. We expect that this work will be supplemented by:

- analysis of life-cycle costing;
- out-turn information on the efficiency initiatives in CP2; and
- other efficiency initiatives that will be developed for the purpose of the review.

4.23 HS1 Ltd has commissioned top down benchmarking studies throughout CP2, and has recently begun developing its wider PR19 benchmarking programme. It should provide both top down and bottom up benchmarking data to support the costs put forward in the 5YAMS. The international 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 wish to undertake our own analysis.

4.24 In 2012, HS1 Ltd and NR(HS) signed a new agreement to extend the existing Operator Agreement. This followed a market review exploring possible alternatives, but HS1 Ltd did not conduct a full market test. The new deal led to a reduction in the Control Period 1 annual fixed price by 10%, of which 60% was passed onto train operators. Aside from benchmarking, HS1 Ltd will need to demonstrate that it has considered the optimal organisation of its supply chain, particularly NR(HS).

ORR asked consultees for their comments on benchmarking.

Respondents' views and ORR approach

In its response, HS1 Ltd confirmed that its efficiency programme will include benchmarking, as well as its approach to supply chain management.

Eurostar said it expects HS1 sets, or is set, overall efficiency improvement targets as part of the review including a stretch target to ensure efficiency is embedded as a core aspect of CP3.

Eurostar and NRIL both highlighted the necessity of finding a suitable comparator with asset characteristics comparable to HS1. Eurostar noted the difficulty of doing so and suggested that whole life costs and other efficiency incentives should be used alongside benchmarking. ORR is open to other suggestions for ways in which HS1 Ltd could demonstrate cost efficiency. While we do not currently anticipate undertaking our own benchmarking analysis, we would expect to see wider cost efficiency analysis to support full consideration of proposals for efficiency.

We also note Go-Ahead Group's suggestion of using the Channel Tunnel as a comparative asset for benchmarking.

DB Cargo raised the concern that as the HS1 network is the only high-speed line designed to permit the operation of conventional rail freight services, its benchmarking analysis should not lead to additional costs being inappropriately allocated to freight.

We are happy that HS1 Ltd is committed to developing its own efficiency analysis programme that will include both top-down and bottom up benchmarking as well as ensuring that its supply chain is optimally managed. ORR does not currently plan to conduct its own benchmarking analysis of HS1 Ltd. However, we will assess the robustness of methodologies (and results thereof) that HS1 Ltd adopts to analyse its own efficiency.

We agree with views expressed by respondents about the difficulties of drawing robust conclusions from HS1 efficiency benchmarking. This is mainly due to problems associated with limited availability of data with sufficient quality and quantity to allow a full like for like comparison. However, we are also of the view that a combination of various approaches such as top-down and bottom-up benchmarking, supplemented by other analyses (analysis of life-cycle costing, out-turn information on the efficiency initiatives in CP2, optimal management of the supply chain), provides useful information that could inform our decision on how to set challenging but achievable efficiency savings targets for HS1 Ltd during CP3. Moreover, HS1 Ltd's efficiency analysis should be undertaken in a proportionately transparent manner with appropriate involvement of stakeholders. This will ensure that the scope of the analysis is relevant and results are reliable.

Charges and incentives

Charging structure

4.25 The components of HS1 Ltd's track access charges include the IRC, 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 of costs are allocated in different ways:

- 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;

- variable costs of shared infrastructure are allocated using an engineering model based on ‘equivalent gross tonne miles’ (i.e. heavier trains running faster tend to get a higher share);
- 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;
- other common costs are allocated by the share of timetabled minutes; and
- freight operators pay only incremental costs.

4.26 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. We expect HS1 Ltd to provide evidence that its charging structure is consistent with the charging requirements in Part 4 and Schedule 3 of the Regulations.

ORR asked consultees for views on the structure of charges for CP3, particularly with regard to incentivising efficiency.

Respondents’ views and ORR approach

Both existing passenger operators expressed the concern that the current charging structure does not incentivise efficient use of the network. HS1 has said that there do not appear to be major opportunities to improve efficiency incentives through changes to charges, but that it is keen to hear from operators on how to capture the impact of different rolling-stock characteristics, and how this can be reflected in its cost allocation processing.

Eurostar said that it pays a disproportionate amount of the total capacity reservation charge, compared with levels charged by other infrastructure managers.

DB Cargo, in its response, supported the continuation of a structure of charges enabling freight operators to pay only incremental costs. However, it questioned whether freight avoidable costs should be included in freight’s incremental charge. DB Cargo also raised its concern about the freight incremental charge annual volume adjustment, as this can impact on freight’s ability to plan its business with a degree of assurance and also lead to annual price shocks for its customers.

ORR notes the issues raised by respondents about the current charging structure. We will explore these further in more detail with stakeholders as we conduct the periodic review. We are particularly interested in views on how charges can be improved to increase the incentives for the efficient use of the network - having explored some of these issues during PR14, we would encourage stakeholders to bring any new information that they have to our attention.

Determining OMRC

4.27 HS1 Ltd will provide its initial views on OMRC in the 5YAMS. Together with any conclusions we draw from our independent scrutiny, this will form the basis of our calculations. In the event that we consider HS1 Ltd's proposals in the 5YAMS to be deficient we will explain our reasons why and HS1 Ltd must then re-submit an amended 5YAMS within prescribed timescales.

Outperformance sharing

4.28 HS1 Ltd re-negotiated the Operator Agreement to include a mechanism by which NR(HS) is offering to share outperformance against its operations and maintenance costs for the last three years of CP2 and CP3. The benefits will be split 50% NR(HS), 30% to be shared between operators and 20% to HS1 Ltd.

4.29 The Concession Agreement does not contain any outperformance sharing requirements in respect of operations and maintenance costs. However, the Concession Agreement does contain a separate outperformance sharing mechanism, which sets out how renewals efficiencies are treated.

4.30 HS1 Ltd is developing proposals on how to maximise the effectiveness of this operating and maintenance outperformance mechanism, particularly the interaction between NR(HS) and operators to identify ways of driving outperformance, building on a number of initiatives already in place. We will scrutinise these proposals as part of our overall review of incentives and our starting point will be the relevant information provided in the 5YAMS alongside the views of stakeholders.

ORR asked consultees for any further thoughts and ideas on how parties can work with HS1 Ltd to improve efficiency, including comments specific to the outperformance mechanism; and if they thought that any other regulatory issues emerge from HS1 Ltd's approach to contracting out the operation and maintenance of the HS1 network to NR (HS).

Respondents' views and ORR approach

HS1 Ltd reported that it was engaging in a number of formal and informal joint-working activities with operators and neighbouring infrastructure managers. NRIL asked that these smaller-scale bespoke collaborative working arrangements be encouraged in CP3 to continue to deliver significant benefits.

However, Eurostar expressed its concern that the present system is not tracked or reported to operators, so there is little sense of the extent to which the mechanism is genuinely driving efficiency; Eurostar drew attention to the difference between specifying an easily achievable target against which outperformance is measured and genuine outperformance against an efficient target. In carrying out PR19, ORR intends to consider whether we shall have greater oversight of risk-sharing between HS1 Ltd and NR(HS), or greater oversight of HS1 Ltd's relationship with its operators.

In response to HS1 Ltd's approach to contracting out the operation and maintenance of the network to NR(HS), DB Cargo asked that ORR consider the introduction of a regime through the Asset Management Statement to incentivise HS1 Ltd (and therefore its contractors) to be more flexible with regard to the operation of rail freight services at the same time as undertaking necessary engineering work. As the infrastructure was designed to allow the continued operation of trains during most routine maintenance ORR would support HS1 undertaking such maintenance in such a way that would minimise disruption for their customers should it not negatively affect efficiency and the long-term sustainability of the network. Incentives around efficient engineering access management will be considered within the remit of the review of the possessions regime.

Ripple Lane

4.31 The Ripple Lane Exchange Sidings are part of the HS1 network and are primarily used by freight services. The sidings can be accessed via the HS1 network and the mainline network. Prior to CP2, HS1 Ltd only charged users originating from the HS1 network for access to Ripple Lane. As part of PR14, a number of stakeholders commented that Ripple Lane was mostly accessed via the mainline network and was not a typical piece of high-speed infrastructure, and should therefore be part of the mainline network. In PR14, we concluded that HS1 Ltd must either transfer the ownership of the asset, or levy charges for freight traffic accessing Ripple Lane from the mainline network, in accordance with the Regulations.

4.32 Following consultation with stakeholders, on 1 April 2016, HS1 Ltd started charging all users for access to Ripple Lane. This charge is a per-train charge, calculated by dividing the total costs of operating, maintaining and renewing the sidings by the forecast number of train movements. Whilst the charges have not yet been in place for a whole control period, our intention is for the charge to be reviewed as part of PR19.

4.33 However, ORR believes that the ownership of Ripple Lane is a matter to be agreed between HS1 Ltd, DfT, NRIL and any other possible owners.

ORR asked consultees for any comments on its approach to Ripple Lane.

Respondents' views and ORR approach

HS1 Ltd and NRIL stated they are continuing to work to explore the feasibility of transferring ownership of Ripple Lane Exchange Sidings. Eurostar said that the transfer should not negatively impact the charges it pays; DB Cargo said the transfer of Ripple Lane to NRIL should take place as early as possible and ORR must take account of the impact of the transfer on freight charges. DB Cargo has said it is ready to assist HS1 Ltd on the review of freight costs and achieve efficiencies but does not believe that Ripple Lane needs to be maintained to the standards to support high speed trains.

GB Railfreight drew our attention to an historic agreement whereby users of domestic freight terminals do not pay an access fee per train movement; ORR has asked GB Raifreight for details of this agreement so that it can be examined as part of the PR19 development and consideration stages.

DB Cargo's view is that ownership of Ripple Lane should be considered as part of PR19, believing it does concern ORR because operational costs feed through to HS1's freight charges and it would therefore be unacceptable for ORR to determine charges based on a facility whose ownership is subsequently removed from HS1.

ORR recognises DB Cargo's concerns about the impact of Ripple Lane on freight charges. We will consider this further and may explore the possibility of including a change control provision as part of PR19 to deal with any future transfer should ownership of Ripple Lane transfer during the control period.

Performance and possession regimes

4.34 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 the 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:

- the 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

- the payment rates (the amount, per minute delay, that one organisation pays another because of its below-threshold performance).

4.35 Under the possessions regime, HS1 Ltd compensates its customers (the train operators) for any planned disruption it causes.

4.36 In our PR14 conclusions, we agreed with HS1 Ltd and stakeholder views that no wholesale review of the performance and possessions regimes was necessary but we said that we would expect a more thorough review to be undertaken in future periodic reviews. This was to take account of the increased level of available data, the arrival of any new entrants and the likely increase in the number of services.

4.37 In PR19, we expect to see evidence of a thorough review of the incentives framework, to ensure that it is coping well with the levels of performance on the HS1 network and to make use of the increased level of data available.

4.38 In advance of the 5YAMS we wanted to understand whether there is appetite amongst stakeholders to change the current performance and possessions regimes.

ORR asked consultees for any comments they may have on the performance regime, including whether HS1 Ltd should undertake a wholesale review.

Respondents' views and ORR approach

Current operators on the HS1 network made comments about the existing performance and possessions regime. As part of the thorough review of the incentives framework, ORR will take into account the following points raised:

- delay minutes being imported in/exported out of the HS1 network with the risk on services starting on the network, even if the operator is not the root cause of the delay (raised by Go-Ahead Group);
- re-calibrate the parameters in the performance regime to ensure they are at the correct level, however the Passenger Demand Forecasting Handbook may not provide data that can be applied to a high speed passenger service (raised by Eurostar);
- the current level of the freight operator payment rate may be too high (as noted by both DB Cargo and GB Railfreight); and
- how HS1 Ltd and NR (HS) will work with operators, as the likelihood of invasive possessions increases, to take their differing commercial needs into account.

Financial framework

4.39 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.

4.40 In PR19, ORR will determine the regulatory treatment of a number of key issues affecting HS1 Ltd's financial framework. These include:

- the allocation and management of risk;
- the framework for the Escrow account, including issues relating to the profiling of payments by operators;
- our approach to measuring and monitoring HS1 Ltd's efficiency, and the interface with asset management and performance; and
- inflation indexation.

The allocation and management of risk

4.41 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 construction or demand risk.

4.42 In simple terms, we would expect that risks should be borne by those best placed to efficiently manage them. There are also recognised strategies to mitigate risks, e.g. transferring to another party (for example through insurance).

4.43 Some risks will materialise while others will not. To ensure the company is adequately funded, and remains financially sustainable, it is important to consider the risk landscape, and ensure the company recovers a fair and proportionate level of income from operators to cover risk.

4.44 When calculating the OMRC, we will review HS1 Ltd's contractual arrangements with NR(HS) and ensure that HS1 Ltd's approach to risk follows best practice.

4.45 In addition to the fixed cost of NR(HS) contracted services, HS1 Ltd has two other broad categories of cost:

- HS1 Ltd's own costs, such as staff costs and office running costs; and
- 'Industry costs', where HS1 Ltd procures a commodity (such as traction electricity) or a service (such as British Transport Police) on behalf of its customers.

4.46 Once the level of income has been established in the calculation of the OMRC the company bears the risk of any cost increases for 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 (i.e. operators) receive the benefit or bear the cost of any changes to the original assumptions.

ORR asked consultees if the financial framework could better incentivise the efficient management of risk.

Respondents' views and ORR approach

In their response to the consultation document NRIL drew our attention to the importance of HS1 Ltd only being exposed to risks it can manage. This includes general cost risk.

HS1 Ltd commented that any ideas for improvements to the financial framework must be within the risk allocation set out in the Concession Agreement.

HS1 Ltd's current passenger operators raised concerns about how the company is incentivised to efficiently deliver on pass-through costs, drawing our attention to increases in CP2 relating to increased business rates; the apportioning of traction electricity costs; and a Specified Upgrade (the installation of GSM-R).

We recognise these comments, and others provided to ORR at our recent presentation to stakeholders. We note that HS1 Ltd thinks that it has considerable incentives in practice to reduce costs for operators and provide the best platform possible for future growth.

Our discussions also highlighted that across many areas HS1 Ltd think that operators bear the risk relating to renewals. For example, HS1 Ltd noted that the provisions of the Concession Agreement means that if the cost of a project increases (between our Final Determination and the project proposal) then the updated cost (subject to ORR review and DfT sign off) is reflected in the amount taken from the Escrow account to pay for the renewal. Operators have different views.

Given the differing views around a fundamental part of the framework around HS1 Ltd's operation of its assets, we think that it is useful for all parties to set out their views in detail of how the concession works to highlight these issues and how they affect the allocation of risk and incentives.

Irrespective of this, it is clear that there are a number of areas where governance could be improved.

We expect HS1 to respond to these concerns and improve the governance surrounding renewals[1]. This will help ensure that where operators take risks they have sufficient oversight over the process to be assured that the cost funded through the Escrow account is appropriate.

In addition, this will also encourage the involvement of stakeholders (including the wider supply chain) which should lead to improved decision making. Through PR19, ORR intends to consider whether we would wish to have greater oversight of HS1 Ltd's relationship with its operators and how incentives are aligned between them.

Escrow account

4.47 The Concession Agreement requires funding for renewals to be held in an Escrow account operated jointly by the SoS and HS1 Ltd throughout the concession. The Escrow account arrangements are intended to fairly spread the cost of renewals over time and avoid the build-up of a backlog of renewals that is potentially difficult to fund. ORR determines the amount operators will pay to HS1 Ltd to fund the Escrow account and HS1 Ltd make the required deposits into the Escrow account. These payments form part of the OMRC.

4.48 HS1 Ltd can draw down money to fund renewals in the control period (this can include work not included in the 5YAMS), subject to the SoS's agreement. Given this is how the money paid by operators is governed, it is important that the process is as transparent as possible.

4.49 During PR14 there was consensus that the low level of the CP1 renewals charge, calculated on the basis of the information available when the charges were set, had led to a significant underfunding of the Escrow account. In the PR14 Final Determination we agreed with HS1 Ltd's proposal to phase in an increase over three control periods, with 50% of the increase implemented in CP2 and the rest in CP3 and CP4. While examining the level of charges for CP3 we will need to consider current circumstances in deciding whether to implement this in full or increase it.

4.50 The two most important issues are:

[1] The renewals costs are reviewed by ORR at a high-level to see if the costs are consistent with HS1 Ltd's general duty to work safely, efficiently, in line with best practice and as if they are the infrastructure manager for the next 40 years. Individual withdrawals are formally approved by DfT who confirm that the work is required for HS1 Ltd to meet its asset stewardship obligations under the Concession Agreement.

- being clear about the allocation of risk between the operators and HS1 Ltd. We have had some initial discussions with the industry on this issue and we will take this work forward as part of PR19; and
- to help us determine an appropriate level of funding of the Escrow account, the long term renewals forecast in the 5YAMS should be as robust as possible.

ORR asked consultees their views on the allocation of risk between the TOCs and HS1 Ltd (while recognising the constraints of the Concession Agreement); and of any other issues that they think ORR should take into account.

Respondents' views and ORR approach

In its response, Eurostar asserted that HS1 Ltd should now be using its accrued asset knowledge in the preparation of plans for maintenance and renewal. However, it was of the view that the current balance of risk in the operation of the Escrow account is fundamentally flawed.

Furthermore, Eurostar believed that HS1 Ltd's approach to Escrow investment risk should not simply replicate Eurostar's own investment policies at Eurostar's risk; as the train operator could simply have kept and invested the money itself.

We discussed issues relating to the Escrow at our recent presentation to operators. At the presentation, we re-affirmed our view that the incentives on the industry to ensure that the payments into the Escrow account are appropriate may be weak and that ORR needs to safeguard intergenerational equity and protect future taxpayers.

We will work with stakeholders to clarify aspects of the Escrow withdrawal process noting, in particular, that the Concession Agreement does not have specific definitions for certain terms, such as 'efficient spend' and how HS1 Ltd takes account of the operators views on the investment strategy.

As mentioned in DB Cargo's response, ORR will be ensuring through PR19 that the HS1 charging framework complies with the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016.

How HS1 reports financial information to ORR

4.51 It is important that HS1 Ltd demonstrates how it is financially performing to its customers, particularly by reporting on efficiency improvements. In CP2, we have monitored efficiency by comparing HS1 Ltd's expenditure to the PR14 assumptions in a simple way. This approach has advantages in that it is easy to calculate and understand.

4.52 However, as HS1 Ltd develops and in particular as the number (and complexity) of renewals projects increases, we will need to consider whether we need to change our approach. This is because a simple approach may provide an inappropriate indication of how well HS1 has performed. An example of the issues that we need to consider is if HS1 Ltd delays a renewals project, that may be an efficient decision; a decision that has adversely affected the network; or just a timing difference. Evaluating the impact of this type of decision can be complicated. We have started to discuss some of these issues with HS1 Ltd and will take this forward as part of PR19.

ORR asked consultees how it could develop its approach to measuring and monitoring HS1 Ltd's efficiency.

Respondents' views and ORR approach

In its response, HS1 identified the importance of agreeing on the level of detail to be included within renewal estimates as this is the information that forms the base against which variances are calculated.

Building on our approach to regulating Network Rail through PR18, ORR would like to see, through PR19, robust and audited accounting data from HS1 Ltd. This is because we are trying to better understand the efficiency of HS1 Ltd's operating and maintenance costs, and its ability to deliver renewals cost-effectively.

Go-Ahead Group reported that the use of scorecards in Network Rail reporting had provided a useful snapshot of route performance and suggested that HS1 Ltd could consider such a model to measure efficiency for its end users. Throughout CP2, HS1 Ltd has used line of sight reporting with its customers. The purpose of this process is analogous to scorecards, but it is not as formal as the route scorecards currently proposed for NRIL in PR18. We will explore with HS1 Ltd and its customers through PR19 how the line of sight process should develop.

DB Cargo also suggested looking for parallels with ORR's regulation of Network Rail, and at other regulators of high-speed rail across Europe. We intend to build on our work with Network Rail on PR18, and anticipate using established networks such as the Independent Regulators Group (IRG-Rail).

In its response Eurostar raised a concern that during CP2 too much weight has been given to demonstrating that efficiency could be delivered before it was factored in (bottom-up), rather than setting ambitious targets to encourage resourcing and ways of working to meet them (top-down). Eurostar would like to see operators involved in these discussions before decisions are made to allow consideration of whether an efficient option for HS1 Ltd could lead to operational/cost impacts for customers – this aligns with ORR's proposed approach to examining the operation of the Escrow fund.

Inflation indexation

4.53 Broadly, inflation risk can be split into two categories: general inflation risk, which covers overall inflation within the economy, and input price inflation, which covers the increase in costs of individual items, such as steel. Currently, HS1 Ltd is protected from general inflation risk on its OMRC, as the access charge paid by operators is linked to retail price index (RPI).

4.54 For input price inflation, the Operator Agreement (OA) allows, in addition to RPI indexation, an escalation uplift of 1.1% per annum in all planned operation and maintenance costs for the calculation of the Annual Fixed Price. Following discussion in PR14 with NR(HS) and HS1 Ltd it was clear that the 1.1% escalation factor represents the long-term assumption for input price inflation, which means that NR(HS) take all input price risk for the whole length of the OA.

4.55 The Johnson Review 2015 [links to UK Statistics Authority website], reviewed inflation indexes and recommended a move away from the retail price index (RPI) to the consumer price index (CPI). Other economic regulators are also considering this issue.

4.56 For HS1, we note that:

- although ORR has discretion when setting the inflation indexation policy for the OMRC, the IRC paid by operators to HS1 Ltd, which is unregulated, is indexed by RPI in line with the terms of the concession agreement. The agreement cannot be changed without the consent of the SoS and HS1 Ltd; and
- regulated passenger train fares are currently RPI-indexed, so moving away from the RPI index could cause issues for train operators and franchising authorities.

ORR asked consultees whether it should review the approach to indexing the OMRC for inflation as part of PR19.

Respondents' views and ORR approach

ORR notes HS1 Ltd's reference to the Concession Agreement's use of RPI as the inflation index.

We also note that Go-Ahead Group did not see the need for a unique revised approach to indexation that is not replicated in the wider industry.

Eurostar also drew our attention to the Concession Agreement: as the IRC is indexed by RPI, the operator would like to see HS1 Ltd find ways to absorb inflationary pressures elsewhere, as Eurostar's fares are not indexed for inflation.

DB Cargo was concerned the Concession Agreement uses the February index rather than an annual average: the operator would like to see the latter used in order to avoid the inherent peaks and troughs of using one month's figure, which can consequently create unrepresentative or inappropriate uplifts or reductions.

Further to these views, ORR still intends to consider the choice of inflation index used, and how that affects the overall settlement.

Annex

Respondent	Date received
Department for Transport	9 November 2017
HS1 Ltd	10 November 2017
Network Rail Infrastructure Ltd	10 November 2017
Go-Ahead Group	10 November 2017
Eurostar International Ltd	10 November 2017
DB Cargo	10 November 2017
GB Railfreight	12 November 2017

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