



PR19 Initial Consultation

28 September 2017

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1. Executive summary

- 1.1 This document is the initial consultation for the periodic review of HS1 Ltd in 2019 (PR19). It sets out our approach to the periodic review, the proposed timetable, the key inputs required and highlights what ORR anticipates will be the key issues to focus on as the review progresses.
- 1.2 High Speed 1 (HS1) connects London St Pancras to the Channel Tunnel. International, domestic passenger and freight services currently operate on the network. HS1 Ltd is the company that holds a concession from the Secretary of State for Transport (SoS) to operate, maintain and renew the network. HS1 Ltd contracts out many of its functions to Network Rail (High Speed) Ltd (NR(HS)), whose parent company is Network Rail Infrastructure Ltd (NRIL).
- 1.3 Under the Railways (Access, Management and Licensing of Railway Undertakings) Regulations, ORR has to ensure that HS1 Ltd is provided with incentives to reduce the cost of allowing access to its infrastructure and the level of access charges. It performs this function through periodic reviews in a manner defined in the Concession Agreement, between HS1 Ltd and the SoS.
- 1.4 The periodic review of 2014 (PR14) was the first periodic review of HS1 Ltd and covered the current control period (CP2) which runs from 01 April 2015 to 31 March 2020. The periodic review of 2019 (PR19) will be the second periodic review and will cover control period 3 (CP3) which will run from 01 April 2020 to 31 March 2025.
- 1.5 There are some similarities but also significant differences between ORR's role on PR19 and its role on both the periodic review of the classic railway network (PR18) and the second roads investment strategy (RIS2). However, in all of its functions ORR is guided by statutory duties and other legislative requirements. ORR seeks to protect the interests of rail and road users, improving safety, value and performance of railways and roads for today and for the future. This sets the broad context for how ORR will undertake PR19.
- 1.6 The timetable for PR19 involves three main stages of work:
 - **a consultation and development stage** which starts with the publication of this document, continues with HS1 Ltd preparing its plans and concludes in February 2019 when HS1 Ltd submits its draft plans;

- **a plan consideration stage** which involves consultation on the draft plans and ORR scrutiny of areas within its remit, culminating in HS1 Ltd finalising its plans and ORR issuing a final determination in January 2020; and
- **an implementation stage** when HS1 Ltd revises its final plan in line with the ORR's determination (if required) by 04 February 2020 and CP3 starting on 01 April 2020.

1.7 The overarching objective of PR19 is to ensure the long-term sustainability of the network. The way this objective can be achieved should be identified in HS1 Ltd's Five Year Asset management Statement (5YAMS) as it is the principal input to the review. The broad structure of the 5YAMS is defined in the Concession Agreement. The content of this plan will develop during the review but it ultimately informs ORR's conclusions on:

- 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 commitments to its customers);
- 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 access charges which ORR regulates.

1.8 There are a number of key issues that are currently at an early stage of consideration, but need to develop during the course of the review including the following:

- **Health and safety** – Network Rail (High Speed) Ltd (rather than HS1 Ltd) is the safety duty holder for the network and ORR monitors and enforces compliance with health and safety legislation. This sits alongside ORR's responsibilities for PR19 but is closely linked to asset management.
- **Asset management** – Our focus will be on compliance with the Concession Agreement and safety requirements. The form of the 5YAMS will evolve during the consultation and development stage but it should provide information that allows transparency and scrutiny in the later stages of the review. The network's assets are now over ten years old and HS1 Ltd has developed a long-term renewals plan. It is important that the infrastructure is managed to maintain long term sustainability and this will increasingly require HS1 Ltd to do things

differently. The company must develop clear plans for the required maintenance and renewal activities in CP3 together with plans for the long-term management of the assets.

- **Cost reduction and efficiency** – This is central to ORR’s wider ambitions to improve safety, value and performance of the railways. Before determining the level of relevant charges, ORR will scrutinise any proposed trade-offs between cost reduction and asset performance (where levels exceed requirements of the Concession Agreement and safety legislation). It will also scrutinise HS1 Ltd’s proposed cost efficiency plans, where benchmarking is a key input. Another important aspect is assurance that HS1 Ltd has considered the optimal arrangements with its supply chain. Efficiency plans link closely with outperformance mechanisms in the charges and incentives framework.
- **Charges and incentives** – The scope of PR19 includes:
 - determining the Operations, Maintenance and Renewals charge (OMRC) HS1 Ltd can levy on operators;
 - ensuring the overall charging structure is consistent with applicable legislation; and
 - approving incentives linked to sharing outperformance with suppliers and customers.

In PR14 we highlighted that payments into an Escrow account to fund renewals have not been sufficient and that these would need to increase in CP3. All other things being equal this will apply upwards pressure on charges. During PR19 we will need to consider current circumstances in deciding whether to implement this in full. Another specific issue is the charge applied for Ripple Lane, which many stakeholders consider should be part of the classic network rather than the HS1 network.

- **Performance and possession regimes** – This aims to incentivise all parties to minimise performance disrupting incidents, which is important to passengers and freight customers. Although part of the charges and incentives framework we have highlighted this element separately as ORR needs to decide whether to roll over existing arrangements or require a wholesale review.
- **Financial framework** – Many of the issues identified above surface in the financial framework. However, there are also a number of other distinct matters, such as the allocation and management of risk under the current arrangements where HS1 Ltd outsources some operations to NR (HS).

- As part of its 5YAMS, HS1 Ltd will also need to provide plans for any Specified Upgrades (enhancements).

1.9 Through a series of questions we are inviting views of HS1 Ltd and its stakeholders before ORR finalises its approach in January 2018, which is the formal notification to all parties on the process ORR intends to adopt.

2. Introduction and background

This section provides an overview of both the HS1 network and HS1 Ltd, the role of ORR in regulating HS1 Ltd, and how to respond to this initial consultation.

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, 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 classic railway network at stations 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 CP3 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 rail and international rail 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), HS1 Ltd does not receive any government grant.
- 2.4 The Concession Agreement sets out the terms of the agreement between HS1 Ltd and the Secretary of State for Transport, 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 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, elements of NR(HS) costs 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. HS1 Ltd and NR(HS) both have safety obligations although 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 ([link to HS1 website](#)). 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 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 Infrastructure (Access and Management) Regulations 2016 ("the Regulations") ([link 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 ([link to ORR website](#)) 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 ([link to ORR website](#)).
- 2.1. This suite of documents sets the broad framework for conducting a periodic review and determines its scope, the detail of which is explained in the next chapter.

Structure of document

2.11 The remainder of this document is structured as follows:

- Chapter 3 explains what is included and excluded from the scope of the review;
- Chapter 4 explains the timetable, the key inputs required and the ORR's broad approach; and
- Chapter 5 sets out key issues that the ORR anticipates will be developed during the review.

Consultation responses

2.12 Throughout we ask specific questions that we invite responses on, which are contained in the relevant sections. But we also welcome views on any aspect.

2.13 Please send your responses in electronic (or if not possible, in hard copy) format by 10 November 2017 to:

PR19@orr.gsi.gov.uk
PR19 Programme team
Office of Rail and Road
1 Kemble Street
London
WC2B 4AN

2.14 If you send a written response, please indicate if you wish all or part of your response to remain confidential. Otherwise, we expect to make it available in full on our website. Where your response is made in confidence, please provide a statement summarising it that can be treated as a non-confidential response. Please note that we prefer Microsoft Word format rather than PDF. If you do email us a PDF document, where possible please:

- create it from the electronic Microsoft Word file (preferably using Adobe Acrobat), as opposed to an image scan; and
- ensure that the PDF's security method is set to 'no security' in the document properties.

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 ([link to ORR website](#)). 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 CP2, 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 The 2019 Periodic Review (“PR19”) will be the second 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 outputs 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 As set out in the previous chapter, the scope of the review is determined by the arrangements set out in three key reference documents: the Concession Agreement, the Regulations and the 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 national 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. It is important to note that 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 an absolute 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 done in accordance with best practice¹, and 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 to which that scheme relates. This brings a review of the performance regime into scope.

¹ This is 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.

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, which 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 a number of statutory duties that we must balance when reaching our decisions on PR19. Our statutory duties are mostly 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.

Network Rail periodic review

3.13 Given the concurrent periodic review of Network Rail Infrastructure Ltd (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 classic railway is structured.

- 3.14 PR19 will not be conducted under the Railways Act 1993 (“the Act”) as is the case for NRIL periodic reviews. 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 duties under Section 4 of the Act do apply.
- 3.15 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 classic 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. PR19 timetable and approach

This section outlines the timetable. It also provides an overview of the key inputs required and our proposed approach to PR19.

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 5YAMS, and for ORR to carry out the evaluation of the 5YAMS and prepare the final determination. These timeline changes are endorsed by the Secretary of State, agreed with HS1 Limited, and are expected to be published by Department for Transport in late 2017.
- 4.2 Changes have been proposed to Schedule 10 of the Concession Agreement, which sets out the timetable for a periodic review. These were developed by HS1 Ltd, DfT and ORR in response to lessons learned from PR14. They are intended to enhance the timetable by:
- 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 will develop its asset management strategy and asset-specific policies, and consult on these in the form of a Five Year Asset Management Statement (5YAMS).
 - **a consideration stage:** from February 2019 until the Final Determination in December 2019. 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 in respect of the level of OMRC 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	ORR publishes its first PR19 consultation (this document).	<i>This must occur at least 30 months prior to the end of CP2.</i>
10 November 2017	Consultation period on ORR’s first consultation document closes.	
By 31 January 2018	ORR issues its Periodic Review Process Document, thus notifying HS1 Ltd and stakeholders of the process it intends to adopt for the conduct of the next Periodic Review.	<i>This must occur at least 26 months prior to the end of CP2.</i>
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.	<i>This must occur at least 13 months prior to the end of CP2.</i>
By 31 May 2019	HS1 Ltd shall produce and submit to ORR the Final 5YAMS.	<i>This must occur at least 10 months prior to the end of CP2.</i>

Proposed timetable		Concession Agreement requirement
May – Sept 2019	ORR scrutinises the finalised plans	
By 30 September 2019	ORR to issue Draft Determination and commence public consultation.	<i>This must occur at least 6 months prior to the end of CP2.</i>
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.	<i>This must occur at least 4 months prior to the end of CP2.</i>
By 7 January 2020	ORR to issue Final Determination.	<i>This must occur at least 60 business days prior to the end of CP2.</i>
Implementation Stage		
Latest 4 February 2020	HS1 Ltd submits revised Final 5YAMS in line with ORR Final Determination.	<i>This must occur within 20 business days of ORR's Final Determination.</i>
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 fullest possible engagement from stakeholders.
- 4.6 A periodic review imposes additional resource requirements on all parties over and above day-to-day functions. It is important that both ORR and HS1 Ltd ensure adequate resources are in place for the duration of the review. It is also important that other stakeholders engage fully so that the final decisions are based on all relevant evidence.
- 4.7 Although PR19 will be undertaken according to this timetable, preparatory work has already begun. On 20 June 2017, an initial event was hosted by HS1 Ltd with key stakeholders to gather opinions and share views on a number of key issues. This was a positive and proactive initiative, signalling HS1 Ltd's intentions to work collaboratively with its stakeholders.

Key inputs

- 4.8 As shown in the timetable, the key input to the review is HS1 Ltd's submission of its Five Year Asset Management Statement (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.
- 4.9 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 our ambition is not to do further analysis and that the Draft and Final Determinations will not contain many changes to HS1 Ltd's 5YAMS submission.
- 4.10 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.

The 5YAMS

- 4.11 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.
- 4.12 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 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 ‘Specific Upgrades’; and
- long term plans covering the 40 year future period look ahead to inform the Escrow assessment.

4.13 Q1 Do you have any comments on the timetable or the structure of the 5YAMS?

5. Key issues

This section outlines the main issues we think (at this stage) are most relevant and will need to be developed further during the course of the review.

Health and safety

- 5.1 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 concern over the safety of the network. ORR 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.
- 5.2 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. In addition to checking whether the 5YAMS has included sufficient expenditure in it to comply with safety requirements, ORR will be seeking assurance that there are plans in place with the appropriate level of capability and capacity to address this challenge.

Asset management

General

- 5.3 ORR will focus on compliance of 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.
- 5.4 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

- 5.5 HS1 Ltd has developed an asset management strategy (AMS) 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.
- 5.6 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

- 5.7 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)

- 5.8 The Concession Agreement has the facility to include Specified Upgrades or other upgrades that may be promoted by either HS1 Ltd itself or the Secretary of State. It describes this as ‘a major upgrade of the signalling system, control systems or trackform’ and could be used to deliver new functionality (such as the recent implementation of GSM-R) or enhancement of existing capabilities.
- 5.9 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

- 5.10 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.
- 5.11 **Q2 Do you think that HS1 Ltd should present options that comply with the concession agreement and safety obligations but with lower levels of asset performance to reduce charges?**

Cost efficiency and benchmarking

- 5.12 In scrutinising HS1 Ltd's plans, our starting point will be the cost efficiency plan included in the 5YAMS. The main aspect for assessing efficiency will be the use of benchmarking (both top down and bottom up).
- 5.13 Benchmarking on a like for like basis is difficult as there are no direct comparisons. ORR has previously reported 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.
- 5.14 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, but at this stage we do not anticipate doing this.

5.15 In 2012, HS1 Ltd and NR(HS) signed a new agreement to extend the existing contract. 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 CP1 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), and how it continues to get the best price within the confines of existing contractual arrangements.

5.16 Q3 Do you have any comments on benchmarking for PR19?

Charges and incentives

Charging structure

5.17 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.

5.18 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.

5.19 Q4 Do you have any views on the structure of charges for CP3, particularly to incentivise efficiency?

Determining OMR charges

- 5.20 HS1 Ltd will provide its initial views 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

- 5.21 HS1 Ltd re-negotiated the Operator Agreement to include a mechanism by which NR(HS) is offering to share out-performance 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.
- 5.22 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.
- 5.23 HS1 Ltd are developing proposals on how to maximise the effectiveness of this operating and maintenance out performance mechanism, particularly the interaction between NR(HS) and operators to identify ways of driving out-performance, 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.
- 5.24 Q5 Do you have further thoughts and ideas on the ways in which parties can work with HS1 Ltd to improve efficiency, including comments related to the outperformance mechanism?**
- 5.25 Q6 Do you think there any other regulatory issues that emerge from HS1 Ltd's approach to contracting out the operation and maintenance of its network to Network Rail (High Speed) Ltd?**

Ripple Lane

- 5.26 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 NRIL 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 NRIL network and was not a typical piece of high-speed infrastructure, and should therefore be part of the

NRIL 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 NRIL network, in accordance with the Regulations.

- 5.27 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.
- 5.28 The ownership of Ripple Lane is a matter to be agreed between HS1 Ltd, DfT, NRIL and any other possible owners, and not something to consider as part of PR19.
- 5.29 Q7 Do you have any comments on our approach to Ripple Lane as part of PR19?**

Performance and possession regimes

- 5.30 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).
- 5.31 Under the possessions regime, HS1 Ltd compensates its customers (the train operators) for any planned disruption it causes.
- 5.32 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.

- 5.33 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.
- 5.34 In advance of the 5YAMS we would like to understand whether there is appetite amongst stakeholders to change the current performance and possessions regimes.
- 5.35 Q8 Do you have any comments on the performance regime and do you agree that HS1 Ltd should undertake a wholesale review of it?**

Financial framework

- 5.36 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.
- 5.37 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

- 5.38 HS1 Ltd is exposed to a range of risks. These include macro-economic risks, like inflation, interest rates as well as specific risks, such as construction or demand.
- 5.39 In simple terms, we would expect that risks should be borne by those best placed to efficiently manage them. There are also a number recognised strategies to mitigate risks, e.g. transferring to another party (for example through insurance).
- 5.40 As the future is inherently uncertain, 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.
- 5.41 When calculating the OMRC, we will review HS1 Ltd's contractual arrangements with NR(HS) and ensure that the company's approach to risk follows best practice.

5.42 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.

5.43 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.

5.44 Q9 How could the financial framework better incentivise efficient management of risk?

Escrow account

5.45 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 potentially unfundable backlog of renewals. 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. This forms part of the OMRC.

5.46 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.

5.47 During PR14 there was consensus that the low level of the CP1 renewals charge, calculated on the basis of the information available at that time, had led to a significant underfunding of the Escrow account. In the 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.

5.48 The two most important issues are:

- 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.

5.49 Q10 Recognising the constraints of the Concession Agreement, what are your views on the allocation of risk between the TOCs and HS1 Ltd?

5.50 Q11 Do you consider there are any other issues that we should take into account?

Reporting efficiency

5.51 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.

5.52 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.

5.53 Q12 How do you think that we can develop our approach to measuring and monitoring HS1 Ltd's efficiency?

Inflation indexation

5.54 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).

- 5.55 For input price inflation, the OA allows, in addition to RPI indexation, an escalation uplift of 1.1% per annum in all planned O&M 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.
- 5.56 The Johnson Review² 2015, 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.
- 5.57 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 RPI-indexed, so moving away from the RPI index could cause issues for train operators and franchising authorities.
- 5.58 As part of PR19, we will consider the choice of inflation index to be used and how that affects the overall settlement.
- 5.59 Q13 Should we review the approach to indexing the OMRC for inflation?**

²[link, to be formatted appropriately: <https://www.statisticsauthority.gov.uk/reports-and-correspondence/reviews/uk-consumer-price-statistics-a-review/>]



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