



OFFICE OF RAIL AND ROAD



ORR's annual report on HS1 Ltd 2014-2015

July 2015

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Foreword

This report focuses on key areas of HS1 Ltd's work and on ORR's regulation of it. In it we outline the work we have done under the terms of the HS1 Concession Agreement and under the Railways Infrastructure (Access & Management) Regulations 2005, and health and safety legislation.

HS1 Ltd has operated very well in 2014-15, and HS1 Ltd's performance during the year has remained very good, with only 0.20% of services being delayed by HS1 Ltd-attributable incidents. HS1 Ltd's data monitoring continues to improve.

Traffic volume on the HS1 network increased in 2014-15, in part due to a significant increase in freight traffic.

In 2014-15, HS1 Ltd generated net income of £11.5m, which is £9.1m higher than assumed in the Access Charges Review ("ACR1") covering the period from 1 April 2010 to 31 March 2015. The railway has seen significant passenger and freight growth resulting in an increased demand for more train paths. At the same time HS1 Ltd has achieved greater efficiencies than were originally assumed, with savings being passed on to the train operators in the form of lower charges. These savings were a result of HS1 Ltd renegotiating the NR(HS) contract and out-performing pass-through cost assumptions.

The report also contains a section detailing our approval of a number of amendments to track access agreements during the year, including approval of further domestic and international services, and sections on asset management and health and safety, including details of our proposed health and safety regulation activities for 2015-16.

Alan Price

Director, Railway Planning and Performance

July 2015



Summary

This document comprises ORR's annual report on HS1 Ltd for the year 2014-15. Previous reports on HS1 Ltd are available from the [HS1 regulation page](#) of our website.

HS1 Ltd has a 30 year concession from the Secretary of State to operate and manage the HS1 network. ORR is the health and safety regulator for HS1 Ltd, and has economic regulation responsibilities through the Concession Agreement and the [Railways Infrastructure \(Access and Management\) Regulations 2005](#) ("the Regulations").

While HS1 Ltd is responsible for the overall management and operation of the HS1 network, the responsibility for the infrastructure itself is subcontracted to Network Rail (High Speed) Ltd ("NR(HS)").

This report focuses on key areas of HS1 Ltd's work, and our regulation of HS1 Ltd. Areas covered are:

- performance and data monitoring;
- track access;
- asset management;
- finance and efficiency; and
- safety.

The first periodic review for HS1 Ltd, ("PR14"), concluded on 9 May 2014. We reported extensively on PR14 in our annual report on HS1 Ltd for the year 2013-14; for further information on PR14 and our findings please see the 2013-14 report, the [PR14 webpage](#) and our [approval document](#).

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1. Performance and data monitoring

Overview

Monitoring of operational performance is conducted on receipt of the quarterly performance report, and HS1 Ltd's performance during 2014-15 has remained very good, with only 0.20% of services being delayed by HS1-attributable incidents.

Analysis of the delay minutes and incident data shows that it is a series of sporadic incidents across a range of assets that impact on services rather than any trend in failures of a particular asset.

Traffic volume on the HS1 network has increased in 2014-15, in part due to a significant increase in freight traffic.

Please note that some of the figures included in this chapter are subject to revisions due to various factors such as re-classification of some delay incidents, unidentified incidents and reconciliation of timetabled trains.

Data Assurance

- 1.1 We monitor HS1 Ltd's data on track performance against HS1 Ltd's obligations in the Concession Agreement. We therefore need assurance that the reported figures are both accurate and reliable.
- 1.2 The most recent data review was carried out by Arup in January 2014, and we also reported on this review in our annual report on HS1 Ltd 2013-14. The review incorporated a high level review of performance and asset management measures and a review of HS1 Ltd's Asset Register. The review included a confidence grading for both the accuracy and reliability of data and progress against recommendations made in the previous review in August 2011 on the breadth of data within the Asset Register.
- 1.3 The performance and asset management measures reviewed were:
 - (a) total number of trains timetabled;
 - (b) total number of trains delayed;
 - (c) total number of trains delayed by an incident wholly or mainly attributable to HS1;
 - (d) total number of trains delayed by an unidentifiable incident;
 - (e) overall fault levels;

- (f) plan attainment (backlog);
 - (g) track quality-induced speed restrictions;
 - (h) broken rails; and
 - (i) service affecting defective rails.
- 1.4 All of these measures were assessed as A1* (the best attainable confidence grading). The source data review highlighted a single process weakness relating to the extraction of data for services delayed or cancelled for multiple reasons. A recommendation for improving this extraction has been made.
- 1.5 HS1 Ltd's Asset Register was regarded as comprehensive and accurate following the 2011 review but some areas of improvement were identified at a lower level, such as detailed data on the equipment, and the criticality and condition indicators. During the January 2014 review, HS1 Ltd showed clear evidence of significant progress in tackling these issues. The improvements include:
- (a) more comprehensive track data;
 - (b) some data fields identified as mandatory;
 - (c) introduced Asset Quality arrangements to create an audit trail of activity; and
 - (d) on-going work to measure asset quality data and create a high level dashboard of indicators.
- 1.6 One recommended area which requires further work is in degradation rates and profiles. HS1 Ltd is jointly carrying out this further work with NR(HS), via the asset information and work to implement whole life cost models.
- 1.7 All HS1 Ltd data assurance reviews are available on our [website](#).

Monitoring

- 1.8 Monitoring of train performance is achieved through quarterly and annual data returns that set out HS1 Ltd train service performance against key performance floor targets. Asset management is monitored in line with HS1 Ltd's Asset Management Strategy. The annual Asset Management Statement, along with asset stewardship key performance indicators, is used to assess HS1 Ltd's performance in maintaining its assets. Please see chapter three of this report for further information on HS1 Ltd's asset management.

Traffic Volume

1.9 The total number of trains timetabled to run on the HS1 network grew between 2013-14 and 2014-15. In particular there was a significant growth in the number of timetabled freight trains, from 286 in 2013-14 to 704 in 2014-15. In part this growth was due to the certainty and incentives provided to freight by PR14, which reduced freight track access charges for Control Period 2 (CP2). A summary of the number of timetabled trains for the whole of Control Period 1 (CP1) is provided here:

Figure 1 – HS1 traffic volume 2010-11 – 2014-15

	2010-11	2011-12	2012-13	2013-14	2014-15
Domestic (St Panc-NKL via Ebbsfleet)	27,687	27,826	32,291 ¹	27,591	27,333
Domestic (St Panc-Ashford)	25,208	25,443	25,857	26,326	26,874
International	18,392	18,236	18,408	18,707	19,011
Freight	-	43	137	286	704
Total	71,287	71,548	76,693¹	72,910	73,922

Note: Please see [caveat in overview](#) on revisions of figures

Performance

1.10 We monitor HS1 Ltd's operational performance against the performance floor measures set out in the Concession Agreement. The performance floor threshold sets out the minimum operational standards for HS1 Limited. Performance of HS1 Ltd is expected to be at a much higher level than the performance floor measures, which state that the proportion of services delayed by HS1 Ltd in a quarter should not exceed 15%. ORR would raise any performance issues with HS1 Ltd well before they fell to these levels. A summary of performance for the financial year ending 31 March 2015 is provided here:

Figure 2 – HS1 performance in 2014-15

	Total number of trains timetabled	Total number of services delayed	Total number of services delayed (attributable to HS1)	Percentage of services delayed (attributable to HS1)	Total number of services delayed (unknown incident)
Domestic (St Pancras - NKL via Ebbsfleet)	27,333	1,599	21	0.08%	2
Domestic (St Pancras - Ashford)	26,874	1,848	37	0.14%	-
International	19,011	3,031	55	0.29%	5
Freight	704	150	3	0.43%	-
Total	73,922	6,628	116	0.16%	7

Note: Please see [caveat in overview](#) on revisions of figures

¹ Spike in traffic volume due to 2012 London Olympics.

1.11 The proportion of trains delayed by HS1 Ltd-attributable incidents in 2014-15 was 0.16%, which is a considerable improvement on the 0.30% recorded in 2013-14 and is the lowest percentage of services delayed in the last five years. It is also significantly better than the performance floor target.

Figure 3 - Delayed trains broken down by causes for which HS1 Ltd are wholly or mainly responsible

Category	Incident description	Total number of services delayed (attributable to HS1)				
		2010-11	2011-12	2012-13	2013-14	2014-15
Track	TSRs due to condition of track	2	0	0	0	0
	Track Faults including Broken Rails	0	49	1	60	0
	Track (total)	2	49	1	60	0
Non-track assets	Points failures	10	4	115	13	25
	OLE/Third Rail faults	8	25	6	50	5
	Signal Failures	45	0	19	1	0
	Track Circuit Failures	88	38	17	5	27
	Signalling System & Power Supply Failures	13	12	6	0	4
	Other Signal Equipment Failures	10	0	0	2	3
	Telecoms failures	0	0	4	0	0
	Non-track assets (total)	174	79	167	71	64
Network management	Problems with trackside signs including TSR boards	0	1	2	0	0
	Other infrastructure	13	27	0	0	6
	Track Patrols & related possessions	0	0	1	1	0
	Possession overrun & related faults	4	37	4	4	3
	Other possession related delay	1	0	0	39	0
	Network Rail Operations - signalling	47	48	65	36	32
	Network Rail Operations - control	1	1	4	1	0
	Network Rail Operations - other	17	140	15	6	5
	Timetable Planning	6	15	10	0	6
	Network Rail commercial takeback/other	2	0	0	0	0
	Uninvestigated delay	0	4	0	0	0
Network management (total)	91	273	101	87	52	
Severe weather	Other weather	0	0	0	2	0
	Severe weather (total)	0	0	0	2	0
External fires	External fires	45	0	0	0	0
	External (total)	45	0	0	0	0
All	Grand total	312	401	269	220	116

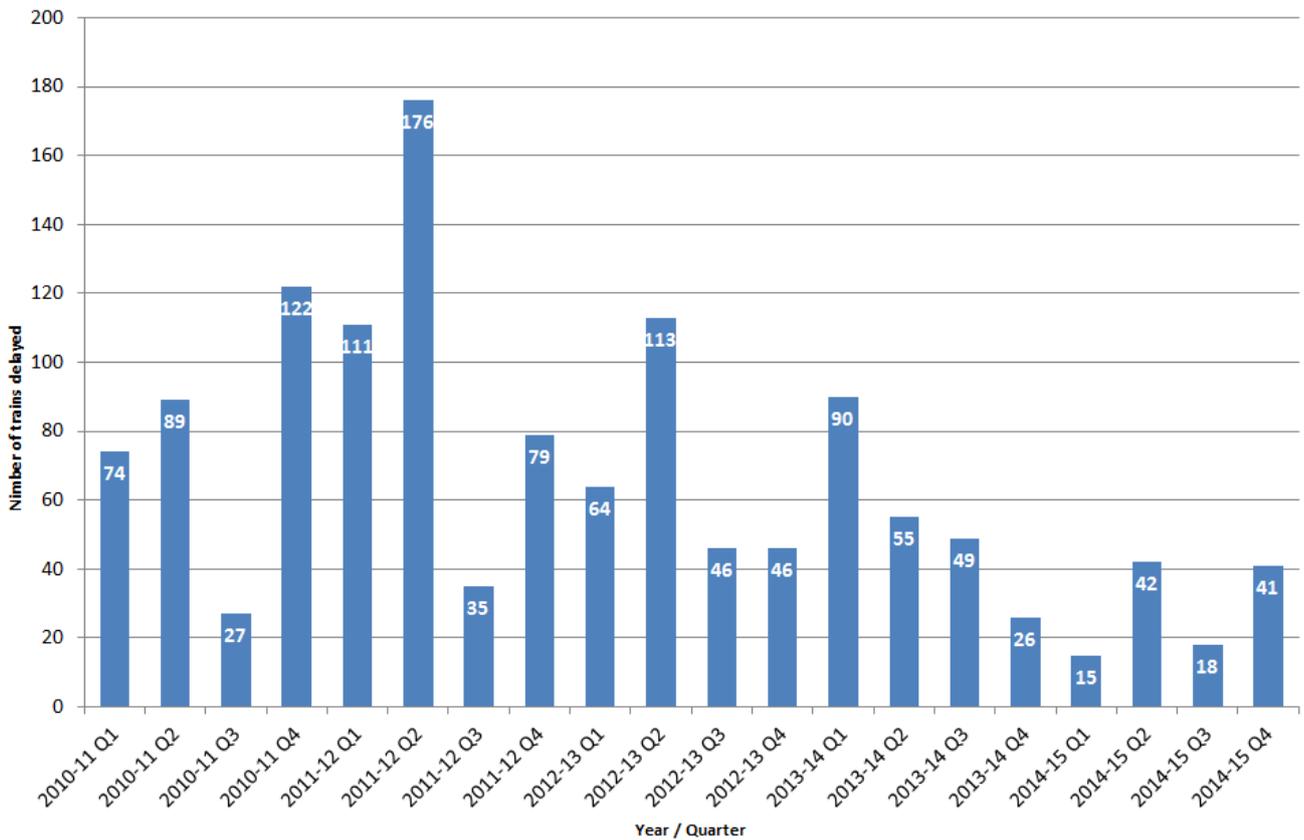
Note: Please see [caveat in overview](#) on revisions of figures

1.12 Figure 3 shows the number of trains delayed by an incident wholly or mainly attributed to HS1 Ltd, displayed by cause. This figure is at its lowest since the time series began in 2010-11, with a total 116 trains delayed for the year 2014-15.

1.13 Slightly more than half of the delays (64 trains) were attributable to non-track assets, mainly due to track circuit failures which accounted for 27 delayed trains and point failures which accounted for 25 delayed trains. 19 out of the 27 track circuit failures occurred in Quarter 4 (4 January 2015 to 31 March 2015), while the largest points failure incident occurred on the 4 July 2014 between Lenham Crossover and Ashford West junction and caused delays to 23 domestic and international services.

1.14 The number of trains delayed by network management issues continued to fall with 52 trains delayed in 2014-15. More than half of these were due to signalling problems during the year.

Figure 4 - No of trains delayed wholly or partly due to HS1 Ltd, by quarter 2010-11 to 2014-15

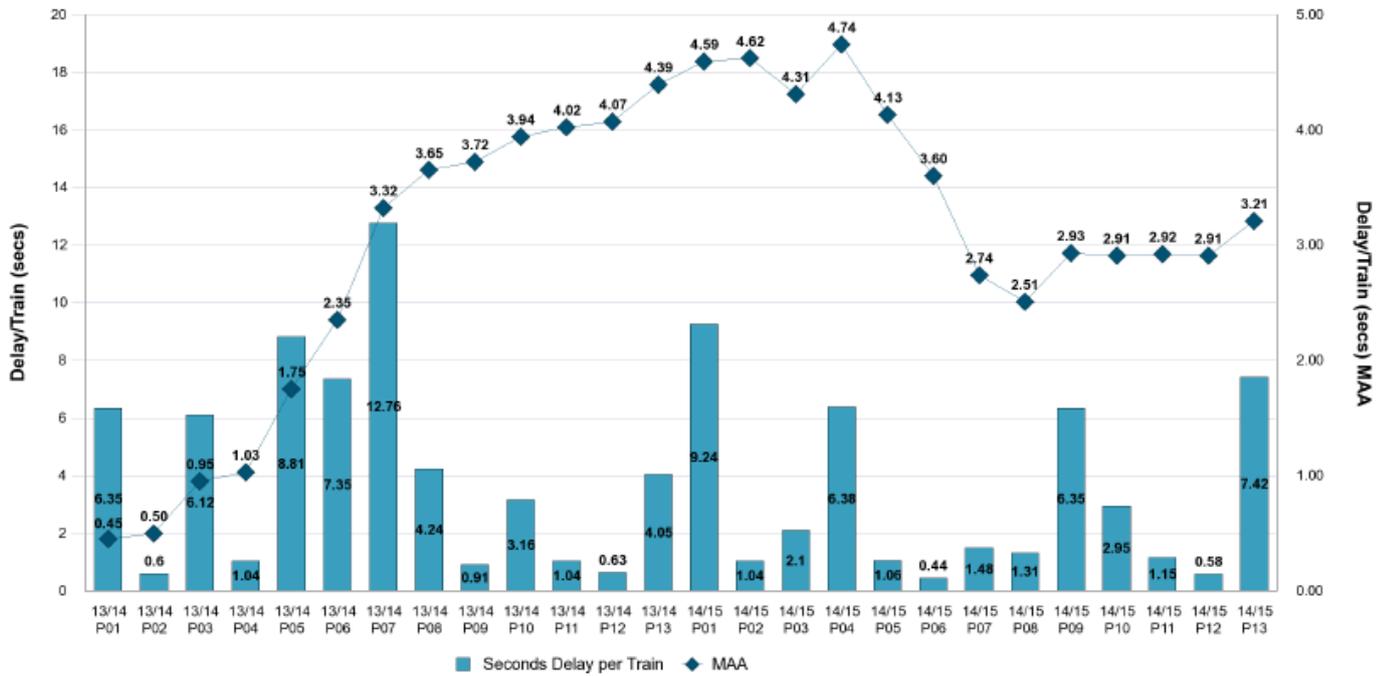


Note: Please see [caveat in overview](#) on revisions of figures

1.15 Figure 4 shows the number of trains delayed by HS1 Ltd by quarter. For the latest year the total in each quarter except for Q4 was lower than in any corresponding quarter recorded since the time series began in 2010-11 and the 2014-15 total of 116 trains delayed was the lowest annual total.

1.16 Figure 5 shows average seconds delay per train on the HS1 network (of delays attributed to HS1 Ltd), which shows a significant improvement from a moving annual average of 4.39 seconds delay at the end of 2013-14 to 3.21 seconds delay at the end of 2014-15.

Figure 5 – Average seconds delay per train on the HS1 network (delays attributed to HS1 Ltd), by period 2013-14 to 2014-15



Source: NR(HS)

2. Track access

Overview

All new framework track access agreements for the HS1 network, and amendments to them, need our approval. These are contracts between HS1 Ltd and train operators which allow access to the HS1 network and provide for the reservation of capacity for more than one timetable period.

Train operators can appeal to us in respect of the terms for track access and more generally under the Regulations.

Throughout the year we have continued to deal in a timely manner with all access applications whilst working with HS1 Ltd to ensure that appropriate policies and associated documentation are in place. Against this background, HS1 Ltd continues to progress access arrangements to encourage utilisation of the network by both passenger operators (national and international) and freight operators.

London & South Eastern Railway Limited

- 2.1 On 17 March 2014 ORR approved a new passenger Framework Track Access Agreement between HS1 Ltd and London & South Eastern Railway Limited (“LSER”) from 31 December 2014 to 31 December 2024. The purpose of this agreement is to allow the continuation of LSER domestic passenger services currently operating on the HS1 network for a duration of 10 years. Further details on the new agreement between HS1 Ltd and LSER can be found on the [ORR website](#).
- 2.2 Since approving the new Framework Track Access Agreement between HS1 Ltd and LSER, we have approved three supplemental agreements to this contract.
- 2.3 On 11th December 2014 ORR approved the 1st Supplemental Agreement, which granted LSER the rights necessary to operate an additional Sunday service from St Pancras to Faversham.
- 2.4 On 9 January 2015 ORR approved the 2nd Supplemental Agreement to LSER’s Agreement. The purpose of this agreement is to grant LSER the quantum rights changes to accommodate the new timetable that commenced on Sunday 11th January 2015. This coincided with the commencement of the first phase of the Thameslink Programme works at London Bridge and the introduction of a new timetable in Kent. The changes included additional peak High Speed services to and from St Pancras, capacity enhancements on peak time services, and the reduction of splitting and joining at certain stations to improve performance and reduce journey times.

2.5 On 30 April 2015 ORR approved the 3rd Supplemental Agreement to LSER's Agreement. This agreement, which was backdated to 1 April 2015, introduced a new Additional Investment Recovery Charge to cover the GSM-R (Global System for Mobile Communications – Railway) Specified Upgrade.

Eurostar International Limited

2.6 On 30 April 2015 ORR approved the 4th Supplemental Agreement to the track access contract between HS1 Ltd and Eurostar International Ltd. This agreement was backdated to 1 April 2015, and gives Eurostar the rights necessary to operate their new Provence service from May 2015 and introduces a new discount on the Investment Recovery Charge associated with these services. Further, the agreement introduced a new Additional Investment Recovery Charge to cover the GSM-R Specified Upgrade.

3. Asset management

Overview

The Concession Agreement requires HS1 Ltd to secure the operation, maintenance, renewal, replacement and planning and carrying out of upgrades in accordance with best practice and in a timely, efficient and economical manner, to the greatest extent reasonably practicable having regard to all circumstances.

Asset Planning

- 3.1 ORR approved HS1 Ltd's submission for the Control Period 2 determination (PR14), taking into consideration the work to address issues raised through the periodic review process including stakeholder feedback.
- 3.2 ORR reviewed the submission for robustness and sustainability to ensure that the assets will be maintained so that they will continue to deliver high levels of safety and performance for the duration of the Concession Agreement and beyond.
- 3.3 HS1 Ltd's whole life cost model was reviewed by ORR which was used to provide the baseline for estimating maintenance and renewals costs over a 40 year horizon. ORR found the model to be robust with some adjustments made to smooth the renewals profile in later years.
- 3.4 HS1 Ltd has completed all of the management improvement initiatives which it highlighted to ORR in the Initial Asset Management Strategy.
- 3.5 HS1 Ltd has now initiated its 'asset leadership' programme with the aim of improving the alignment of long term objectives between HS1 Ltd, its customers and partner activities. The scope of this exercise is for HS1 Ltd to drive efficiency without compromising safety or performance and to be world class in asset management by 2025.
- 3.6 We continue to encourage HS1 to undertake an ISO55000 assessment which will provide insight into the asset management capability and maturity particularly of the infrastructure maintainer (NR(HS)) and identify possible areas for improvement.
- 3.7 The capital and operating costs for the GSM-R project have now been agreed between HS1 Ltd and NR(HS). This project was designated as a Specified Upgrade under the terms of the Concession Agreement. We are pleased that negotiations have successfully concluded and that work is now progressing to bring the HS1 network up to a common standard in line with the rest of the UK network. ORR

reviewed the material submitted by HS1 Ltd under the terms set out in the Concession Agreement, and approved the Specified Upgrade on 18 February 2015.

- 3.8 ORR and HS1 Ltd are continuing dialogue over the best approach to benchmarking with other similar high speed rail networks. HS1 Ltd has recently appointed a consultancy firm to take forward its comparative work in its endeavour to learn and adopt best practice and also in helping to demonstrate that its operation is economic and efficient.

Asset Performance and Condition

- 3.9 The HS1 assets continue to perform well and have achieved a moving annual average of 3 seconds delay per train which has equalled the best performance achieved since 2006.
- 3.10 There have been no major asset failures reported over the year, with the biggest incident attributed to a points failure as a result of high temperature in July 2014.
- 3.11 Overall the average number of faults per annum for 2014-15 compared to the previous year is lower for track, signalling, mechanical and electrical and civils assets. Telecoms faults have increased compared to last year as has overhead line electrification, albeit only slightly.
- 3.12 HS1 Ltd is currently investigating a number of civils defects in order to better understand the failure mode of the design/construction defects and agree remedial actions in terms of maintenance and renewals activities.

Maintenance and Renewals

- 3.13 No renewals were needed to be undertaken over 2014-15 and this is in line with expectations given that the assets are still in a relatively new condition.
- 3.14 A renewals programme of £21m (February 2013 prices) was agreed with HS1 Ltd over CP2 and HS1 Ltd is currently reviewing NR(HS)'s proposed plans with the aim of ensuring that they represent good value for money.
- 3.15 HS1 Ltd is currently upgrading the GSM-R system from mobile handset use only to 'Track-to-Train' operation which includes a transition for the HS1/Eurotunnel interface to cater for international passenger traffic. The second phase of the project will upgrade the base stations which are now obsolete. The Network Change Notice has been submitted for comment to stakeholders. Work package 1 is expected to be completed by November 2015. The contract to replace the base stations has not yet been finalised at this stage.

4. Finance and efficiency

Overview

In 2014-15, HS1 Ltd generated net income of £11.5m, which is £9.1m higher than assumed in Access Charges Review (“ACR1”) covering the period from 1 April 2010 to 31 March 2015. This is driven by an increase in passenger train paths and HS1 Ltd being able to better manage its cost base. Cumulatively over the first control period, HS1 Ltd generated £20.8m net income, against £1.3m assumed in the ACR, for the same reasons.

As at 31 March 2015 HS1 Ltd’s net assets were £200m, a decrease of £146m since 31 March 2014 while at 31 March 2015, HS1 Ltd’s current liabilities exceeded its current assets by £13m. Also, as at 31 March 2015, HS1 Ltd’s total liabilities were £4,276m and total shareholder funds were £200m.

Introduction

- 4.1 Given the significance of the network and our statutory duties it is important that there is transparent information available so we can monitor HS1 Ltd’s performance. This will also be used to inform our next access charges review (known as periodic review 2019 – ‘PR19’).
- 4.2 Currently, our primary source of information about HS1 Ltd’s financial performance is the finance section in HS1 Ltd’s annual asset management statement² and HS1 Ltd’s published statutory accounts. In addition, we have further agreed with HS1 Ltd a quarterly finance-reporting framework, which will improve our monitoring.
- 4.3 Our annual report on HS1 Ltd is intended to help customers, funders and other interested parties gain a better understanding of the company’s financial performance compared with the baselines specified in the Access Charges Review (ACR) for the period from 1 April 2010 to 31 March 2015 (control period 1, CP1)³.
- 4.4 In discussing HS1 Ltd’s net profit we are referring to the whole business as presented in HS1 Ltd’s statutory accounts. The statutory accounts report HS1 Ltd’s

²The annual asset management statement is submitted by HS1 Ltd to ORR as specified in the Concession Agreement, and provides information on HS1 Ltd’s asset management and financial performance each year.

³One of our key roles as a regulator is to set the Operations, Maintenance and Renewals charge that HS1 Ltd can levy on train operators for access to this infrastructure. We do this in periodic reviews of charges (sometimes called price controls). A key element of a periodic review is the assessment of what activities HS1 Ltd needs to undertake to efficiently operate, maintain and renew its infrastructure, and what the efficient cost of these activities should be. In doing this, we challenge HS1 Ltd to improve its efficiency.

performance in respect of its whole business, including both regulated and unregulated parts⁴.

4.5 This chapter includes:

- a financial overview;
- analysis of HS1 Ltd's efficiency;
- information on HS1 Ltd's finances; and
- an explanation of the movement in HS1 Ltd's escrow account.

⁴ In the financial overview and our sections on HS1 Ltd's efficiency and escrow account we only refer to income and costs relating to pass through costs and the operations and maintenance recovery charge as it is these charges that are regulated by ORR. This is a subset of HS1 Ltd's broader costs and does not include, for example, corporation tax or interest costs.

This means these sections present a different analysis to HS1 Ltd's statutory accounts and do not include:

- the other income relating to the construction of the HS1 network and its financing costs (known as the IRC), which are set out in the Concession Agreement;
- income and costs related to train operators using the HS1 stations (St Pancras, Stratford International, Ebbsfleet International and Ashford International), which are regulated by DfT; and
- income and costs for unregulated business activities at HS1 stations, for example, relating to car parks and retail space.

Financial overview

<i>£m (nominal)</i>	Year ending 31/03/15			Cumulative since 1/10/09		
	Actual	ACR	Difference	Actual	ACR	Difference
Income						
Pass through income	14.5	25.3	(10.8)	76.6	116.9	(40.3)
Operations, maintenance and renewals charge	69.1	69.9	(0.8)	338.2	348.9	(10.7)
Total Income	83.5	95.2	(11.7)	414.8	465.8	(51.0)
Expenditure						
Controlled track costs						
NR (HS)	45.8	55.2	9.4	253.8	284.4	30.7
NRIL	1.5	2.1	0.5	8.0	10.5	2.5
HS1	8.9	8.9	0.0	46.6	45.8	(1.0)
Total controlled track costs	56.2	66.2	9.9	308.4	340.7	32.3
Pass through costs						
Power - non traction	1.5	2.7	0.2	6.8	8.5	1.7
Insurance	3.4	9.0	5.6	21.8	40.3	18.5
EdF Fees and Renewals	4.9	5.2	0.4	25.0	26.1	1.2
Rates	4.7	9.3	4.6	23.1	42.0	18.8
Total pass through costs	14.5	25.3	10.8	76.7	116.9	40.2
Freight costs						
NR (HS)	0.5	0.6	0.1	3.0	3.0	(0.0)
NRIL	0.3	0.5	0.2	2.7	2.6	(0.1)
HS1	0.5	0.3	0.2	1.9	1.3	(0.6)
Total freight costs	1.3	1.3	0.0	7.6	6.8	(0.8)
Total OMRC	72.0	92.8	20.8	392.7	464.5	71.8
Schedule 4 & 8	0.0	0.0	0.0	1.3	0.0	1.3
Total costs	72.0	92.8	20.8	394.0	464.5	73.1
Net Income / (Expenditure)	11.5	2.4	9.1	20.8	1.3	19.5

Net income

4.6 In 2014-15, HS1 Ltd generated net income of £11.5m, which is £9.1m higher than assumed in the ACR. This is driven by an increase in the number of passenger train paths and HS1 Ltd being able to better manage its cost base. Cumulatively over the first control period, HS1 Ltd generated £20.8m net income, against £1.3m assumed in the ACR⁵, for the same reason.

Income

4.7 In 2014-15 HS1 Ltd recovered £14.5m of pass through income⁶. This compares to £25.3m assumed in the ACR, and represents a reduction of £10.8m (42.7%) and is due to lower levels of pass through costs. In the year, HS1 Ltd also recovered £69.1m of income relating to charges for operations and maintenance of the network. This compares to £69.9m assumed in the ACR respectively and represents a reduction of £0.8m (1.1%). This was mainly caused by the train operator share of savings from the 2012 renegotiation of HS1 Ltd's contract with NR(HS) which more than offset the additional train paths.

4.8 Over the control period, HS1 Ltd recovered £76.6m of pass through income, compared to £116.9m assumed in the ACR, which is a reduction of £40.3m (34.5%). It also recovered £338.2m of income relating to operations and maintenance charges, compared to £348.9m in the ACR, which is a reduction of £10.7m (3.1%). These variances are caused by the same reasons as the 2014-15 variances.

Costs

4.9 HS1 Ltd's costs are split into costs it incurs on controlled track, pass through costs and freight costs.

Total controlled track costs

4.10 Total controlled track costs are costs incurred on track that is under the control of HS1 Ltd. These costs include the costs NR(HS) incur operating and maintaining the track, HS1 Ltd's staff costs, and related back-office costs.

4.11 In 2014-15 actual total controlled track costs were £56.2m which is £9.9m (14.9%) lower than the ACR assumption of £66.2m. This variance is due to a reduction in

⁵ The ACR assumed no net funding for OMRC in net present value (NPV) terms over CP1. However, due to the phasing of income and costs, in cash terms the ACR assumed £2.4m surplus income in 2014-15 and £1.3m surplus income over the control period.

⁶ HS1 Ltd recovers income from operators for 'pass through costs' that HS1 Ltd incur running the railway, that are largely uncontrollable by HS1 Ltd and are 'passed on' directly to its customers. These include non-traction electricity, electrical infrastructure costs and renewals, insurance and business rates.

NR(HS) charges resulting from a renegotiation with NR(HS) in 2012. 60% of these savings were shared with train operators and 40% was kept by HS1 Ltd.

4.12 Over the control period, total controlled track costs were £308.4m, which is £32.3m (9.4%) lower than the ACR assumption of £340.7m. This reduction in costs largely relates to the renegotiation with NR(HS).

Pass through costs

4.13 Pass through costs in 2014-15 were £14.5m, which is £10.8m (43.5%) lower than the ACR assumption of £25.3m. This is caused largely by a reduction in rates costs arising from a rates review in 2010, and insurance savings made by HS1 Ltd from competitive procurement initiatives and a good claims history.

4.14 Over the control period, total pass through costs were £76.7m, which is £40.2m (34.4%) lower than ACR assumption of £116.9m. The reduction over the control period is also largely caused by reduced rates and insurance costs.

Freight costs

4.15 Freight costs arise on freight specific infrastructure that HS1 Ltd is obliged to maintain and any business activities HS1 Ltd engages in relating to freight traffic.

4.16 In 2014-15, freight costs were £1.3m, which was in line with what was assumed in the ACR. Over the control period, freight costs were £7.6m, which is £0.8m (11.8%) higher than the £6.8m assumed in the ACR. This was caused by increased engagement with the freight community⁷.

Efficiency

4.17 HS1 Ltd does not currently report on efficiency. However, it is important that we understand how efficient HS1 Ltd is both to confirm how HS1 Ltd is doing compared to the efficiency challenge that we set it and to inform our next review of its charges.

4.18 In this report we have calculated a very simple measure of efficiency⁸, cumulatively over CP1. Using this measure HS1 Ltd has achieved efficiency savings of 9.4%,

⁷ In 2014-15 there were 703 freight trains on the HS1 network, compared to an ACR assumption of 2,530 trains. This is 1,827 (73%) fewer trains than expected in the ACR. This is because the ACR freight traffic assumption was, with hindsight, unduly optimistic.

⁸ Our simple measure of efficiency expresses the variance between actual expenditure and the assumption in the ACR as a percentage of the assumption in the ACR. In other words, if HS1 Ltd were to report actual costs of £80 against an ACR assumption of £100, the reported efficiency would be $\frac{100-80}{100} = 20\%$. This measure does not, for example, adjust for differences caused by the phasing of spending, or changes in scope since the determination.

34.3% and -11% in total controlled track costs, pass through costs and freight costs, respectively. Overall this represents an efficiency improvement of 15.7% over CP1.

Finance

4.19 As at 31 March 2015 HS1 Ltd's net assets were £200m, a decrease of £146m since 31 March 2014 while at 31 March 2015, HS1 Ltd's current liabilities exceeded its current assets by £13m. The movement in net assets is caused by the company making a loss of £91m and paying dividends of £55m. Also, as at 31 March 2015, HS1 Ltd's total liabilities were £4,276m and total shareholder funds were £200m.

4.20 HS1 Ltd's is currently able to pay out dividends as it has sufficient brought forward reserves, even though within the year they are loss making. Whilst income will rise by traffic and inflation over the life of the concession, financing costs will reduce given the quantum of debt in the business will reduce over time and operating costs are likely to reduce in real terms due to efficiency. Renewals, HS1 Ltd's other key cost, is funded by consumers through the escrow account so has no impact on the profitability of HS1 Ltd (bar any impact from the outperformance sharing mechanism). This means HS1 Ltd expects to make low profit or a loss in the beginning of the concession, before making profits in later years.

Escrow account

4.21 As specified in the Concession Agreement, HS1 Ltd collects from train operators and pays into an escrow account each year to fund renewal and replacement of the railway line in the future. In doing this, the escrow account fulfils a similar function to the RAB in Network Rail and other infrastructure providers, as it provides a means to fund future capital expenditure and ensure intergenerational equity.

4.22 In 2014-15 HS1 Ltd paid £7.8m into the escrow account, which is £1.8m (30%) more than the £6.0m assumed in the ACR. This is driven by two variances – HS1 paid the first quarter of 2015-16 in advance at the end of 2014-15, and in the year received additional funds from train operators to pay into the escrow account than expected⁹.

4.23 Interest earned on the escrow account was £0.1m in 2014-15, which is £2.9m lower than the £3m assumed in the ACR. There were no drawdowns in the year. There were two drivers of this variance. Firstly, the ACR published in 2009-10 contained an interest rate assumption of 7.41%. In the context of the weak economic climate at the time, this assumption was overly optimistic. Secondly, the cash in the escrow account earned a low level of interest of around 0.3%. This is partly due to the rules of the

⁹ The escrow account funds long-term renewals that are needed on the network. Train operators pay quarterly to the escrow account. This charge is calculated prior to the start of the control period on a per train basis. In the event more or less trains run in the year, the amount paid into the escrow account will vary compared to the assumption in the ACR.

Concession Agreement during CP1 which restricted the accounts in which HS1 Ltd could place the escrow funds.

4.24 In PR14, ORR, HS1 Ltd and Train Operators noted issues around the governance of the escrow account that limited the ability of the escrow account to earn a more efficient level of interest. DfT and HS1 Ltd worked with ORR and stakeholders to change the governance arrangements of the escrow account in the Concession Agreement, enabling HS1 Ltd to invest the Escrow account in a way that better balances financial risk and market return.

5. Safety

Overview

Under the Railways and Other Guided Transport Systems (Safety) Regulations 2006, the infrastructure manager, NR(HS), has duties to establish and maintain a safety management system as set out in the Regulations. NR(HS) was issued with a safety authorisation in accordance with the Regulations in October 2009, which was renewed in March 2012 for a period of five years.

Safety activities during 2014-15

- 5.1 ORR carried out an inspection of the safety management systems used by the contractor responsible for the maintenance and delivery of rolling stock and vehicles used for infrastructure maintenance on HS1. The inspection included an assessment of the contractor's management system capability using the ORR Railway Management Maturity Model (RM³).¹⁰
- 5.2 The inspection found evidence of commitment and drive to secure improvements in health and safety from the leadership team of the maintenance contractor's HS1 Business Unit, as well as the management acumen to deliver them. There was also strong collaboration between maintenance contractor and NR(HS), which appeared to be effective in addressing rolling stock availability issues through the development of a joint fleet improvement plan. ORR inspectors also found evidence of robust written systems in place to manage both safety and staff competence.
- 5.3 ORR notes the maintenance contractor's proposals to improve how information relating to the use of hazardous substances is communicated to employees.
- 5.4 Supervision was also conducted through liaison meetings with HS1 Ltd and NR(HS) staff and monitoring of incidents in the Network Rail daily log.
- 5.5 Further information on health and safety performance on all of Britain's railways in 2014-15 can be found in ORR's health and safety annual report for 2014-15¹¹ and on the mainline railway (which includes the HS1 network) can be found in the Rail Safety and Standards Board (RSSB) Annual Safety Performance Report 2014-15¹².

¹⁰ Further information on RM³ can be found on the ORR website;
http://orr.gov.uk/_data/assets/pdf_file/0013/2623/management-maturity-model.pdf

¹¹ <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/monitoring-and-reporting/health-and-safety-annual-report-2015>

¹² <http://www.rssb.co.uk/Library/risk-analysis-and-safety-reporting/2015-07-aspr-full-report-2014-15.pdf>

5.6 Further information on our approach to regulating health and safety risks created and managed by businesses in the railway industry can be found in our strategic risk priorities document¹³.

Proposed health and safety regulation activities for 2015-16

5.7 The following health and safety regulation activities are proposed for 2015-16;

- Inspection of NR(HS) arrangements for switching and isolation of overhead line equipment;
- Regular liaison meeting with NR(HS) during the year; and
- Investigations of incidents in accordance with ORR's processes.

¹³ <http://orr.gov.uk/publications/corporate-publications/health-and-safety-strategy>

Use of the name, the Office of Rail and Road, reflects the new highways monitor functions conferred on ORR by the Infrastructure Act 2015. Until this name change is confirmed by legislation, the Office of Rail Regulation will continue to be used in all documents, decisions and matters having legal effects or consequences.



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