Structure of Charges Review

Initial Consultation – May 2021

Structure of Charges Review – Initial Consultation

Background

HS1 Ltd is responsible for operations, maintenance, and renewal of the high-speed route infrastructure between St Pancras and the Channel Tunnel. We fund these activities by levying charges on passenger train operators and freight train operators, which currently include Eurostar, London Southeastern Railway, and DB Cargo. Some charges are determined by the Office of Rail and Road (ORR) through a periodic review, some are set by the Department for Transport (DfT), some are enshrined in the Concession Agreement and some are set in accordance with actual costs incurred. The current charging regime applies to Control Period 3 (CP3), from April 2020 to March 2025. We have committed to undertake a thorough review of the current Structure of Charges and are starting the review with this initial consultation. The review will input to the next periodic review to establish charges for Control Period 4 (CP4).

Strategic aims from the review

HS1 is the UK's only high-speed railway and provides a direct "Green Gateway" rail link to Europe. It is a high performing network, a major success story and a significant strategic asset for the UK. It has dramatically reduced rail journey times between Europe and the UK, helped with the regeneration of the land around our landmark terminus at St Pancras International and continues to deliver great environmental benefits to the UK and beyond by offering a more environmentally friendly alternative to cars and planes.

There is spare capacity on the route (even before the downturn in passenger demand due to Covid) and we consider that all stakeholders and the wider UK economy will benefit from more train services using the route. Therefore, a key strategic aim from this structure of charges review is to encourage greater network usage. This would spread costs amongst more train services and thus reduce access charges per train and contribute to the Government's green agenda.

While the structure of charges review is open to considering all charges that encourage increased train services, whether domestic, international or freight, HS1 is a 30 year concession and that has an impact on the review. The concession acquisition from the Secretary of State for Transport was financed based on the certainties the concession charge structure provides, so these will need to be considered throughout the consultation. This is different to many state-owned infrastructure managers and so the HS1 structure may create some limitations on what is possible.

Why are we doing the review now?

Our charges were set at the last periodic review (PR19) but that only set the level of charge and did not consider the overall charging regime to any significant extent. We said at the time that there would be merit in undertaking an in-depth review of the structure of our charges,

which had not been looked at for 10 years, and the ORR agreed with this suggestion. We believe now is the right time to start that review as it gives sufficient opportunity to properly consider the matter and seek stakeholder input in time to feed into the next periodic review that will set charges for the next 5-year control period (CP4).

Covid and its ongoing implications is not the driving force for the review as it was committed to at the time of PR19. However, in the context of the severe impact of the pandemic on rail travel, we consider this to be the appropriate time to review charges, and in some ways it makes the review more important to achieve the strategic objectives of not only encouraging more train services but ensuring a bounce back in service provision.

How are we undertaking the review and consulting with stakeholders?

We are planning to undertake the structure of charges review in 4 phases, namely:

- Phase 1, initial consultation: We are launching the review with **this initial consultation** to set the scene for the review and seek early views on the issues that stakeholders believe are important.
- Phase 2, optioneering: We will hold workshops or meetings with stakeholders and develop options for changes to the charging regime. We anticipate that this will take place from July to October.
- Phase 3, consultation on proposals: We aim to issue a second consultation in November 2021. It will set out the findings from the optioneering discussions, put forward proposals and seek stakeholder views on the proposals.
- Phase 4, conclusions: We aim to issue conclusions to the review by February 2022.

Current charging regime

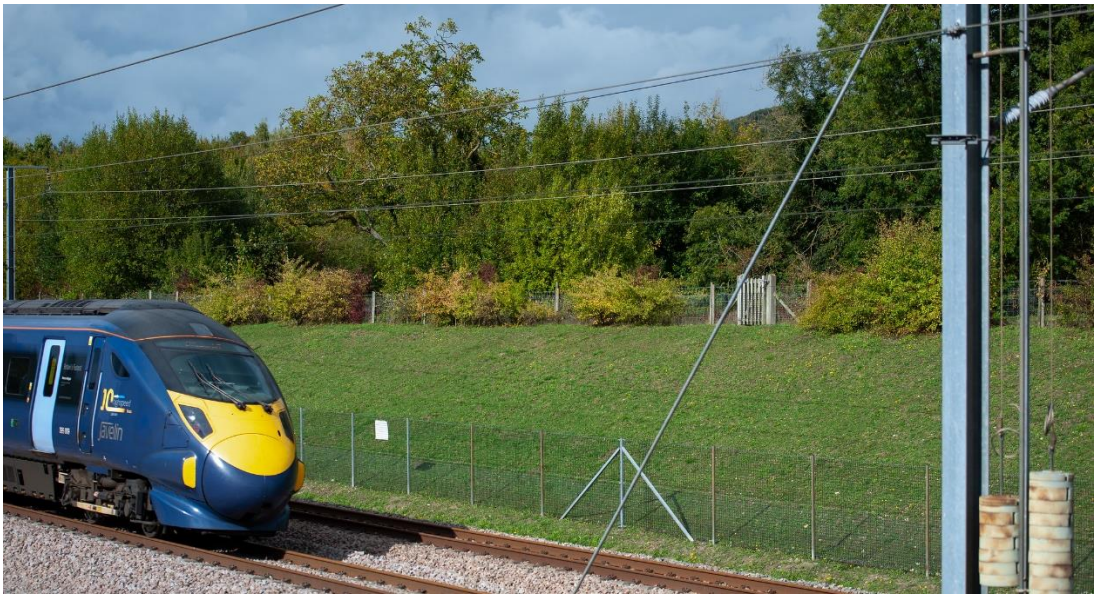
HS1 Ltd's charging framework was established in 2009 by the DfT in the Concession Agreement. Under the framework, track access charges and station charges are levied on passenger train operators (TOCs) and Freight train operators (FOCs) that use the HS1 infrastructure. The charges are set to recover the costs that HS1 Ltd directly incurs in operating, maintaining and renewing HS1 and the long-term project costs incurred from the initial construction and long-term operation of HS1. There are 3 broad types of charge:

- Investment charges (long-term project costs from initial construction);
- Track access charges (ongoing operations, maintenance and renewal), and
- Station charges.

The following table provides a summary of the main charges currently levied by HS1 Ltd with more detail on each one given in Annex A.

Description of charge	Approx. annual value (£m)	Who sets the charge	Passenger (P), Freight (F)*
Investment Charges			
Investment Recovery Charge (IRC). This is a fixed charge to recover the initial capital cost of building HS1.	175	Concession Agreement with DfT	P
Additional Investment Recovery Charge (AIRC). To recover the cost of route enhancements. Currently the only enhancement is that for GSMR.	1	ORR	P
Track Access Charges			
Traction electricity charge. Actual costs are passed through to operators.	20	HS1 Ltd	PF
OMRCA1: for directly incurred operations, maintenance and renewal (OMR) costs that vary with traffic.	14	ORR	PF
OMRCA2: for the avoidable long-term OMR costs on a long run incremental basis.	10	ORR	PF
OMRCB: to recover common long-term OMR costs.	56	ORR	P
OMRCC: to recover common pass-through costs that are outside of the control of HS1 Ltd	19	ORR	P
Station Charges			
Station Long Term Charge (LTC): to recover repair and renewal costs at the 4 stations.	9	DfT	P
Station qualifying expenditure (QX): for actual operating and maintenance costs at the 4 stations.	32	HS1 Ltd	P
Approx total annual charges income assumed at PR19 (i.e. does not reflect the impact of the volume re-opener or actual revenue received during the pandemic)	£336m		

*References to freight in this table relate to conventional freight services. High-speed freight services do not currently operate on HS1.



Scope of the review

The charges, or potential new charges, that are **in scope** for the review are:

1. IRC discount policy.
2. The way renewals costs are reflected in charges, particularly the timeframe used to assess the annuity – noting this was the subject of significant discussion at PR19.
3. OMR track access charges and Stations LTC including:
    a. Split between fixed and variable charges.
    b. Split between international and domestic operators.
    c. Split between freight and passenger services.
    d. Allocation to operators benefiting from HS1 infrastructure but not currently being charged (e.g Thameslink services stopping at St Pancras).
4. Other incentives for efficiency, recovery and growth (including time of day charges, station dwell times and the opportunity for new services on parts of the HS1 route), and environmental impact.
5. Potential for the evolution of new market segments such as for high-speed freight, sleeper services or mixed passenger/freight services.
6. Station enhancements.

Out of scope for the review are the following:

1. IRC – the right to charge up to the cap. But note that the discount policy is part of this review.

2. Traction electricity. Note that significant work was done on this in PR19 and is reflected as part of our sustainability strategy.

3. Stations QX.

4. Other unregulated or retail income, including the dual till arrangement.

5. Major contractual reform of track or station access contracts.

The IRC itself is out of scope for the review because it is established by contract as set in the Concession Agreement; specifically paragraph 4.2 of Section 1 (Access Charges) of Schedule 4 (Charging Framework). It should also be noted that charging the IRC at the cap in the Concession Agreement is a fundamental aspect of the concession funding structure noted above. However, the discount policy that can be applied to the IRC for new services on a time limited basis is in scope.

Unregulated retail income (dual till arrangement) is also out of scope. This is because the concession was sold to HS1 Ltd on the basis that retail income would remain unregulated. The Concession Agreement expressly states that unregulated income would not be taken into account in setting OMR charges.

In our 5YAMS last year we also set out some specific charging issues we wanted to include in the review. These are described below.

- **The extent to which we modify charges according to vehicle characteristics**. Current charges distinguish between international and domestic traffic and the charging model takes into account the expected mix of train types to calculate an average charge per train for each operator. There are questions about whether we should further distinguish between rolling stock types (for example the Class 374s v Class 373s) in our charges; and also whether we should modify the fairly simple term in the charging model that drives such charging differences. The review will benefit from ongoing experience with the railway, including the impact of introducing the Class 374s. We will also review experience on NRIL and other networks where changes to the charging structure have been successful in driving vehicle modifications to improve the wheel-rail interface and whole system costs. The key question is whether such a detailed approach is helpful given the relatively few types of rolling stock currently using HS1.

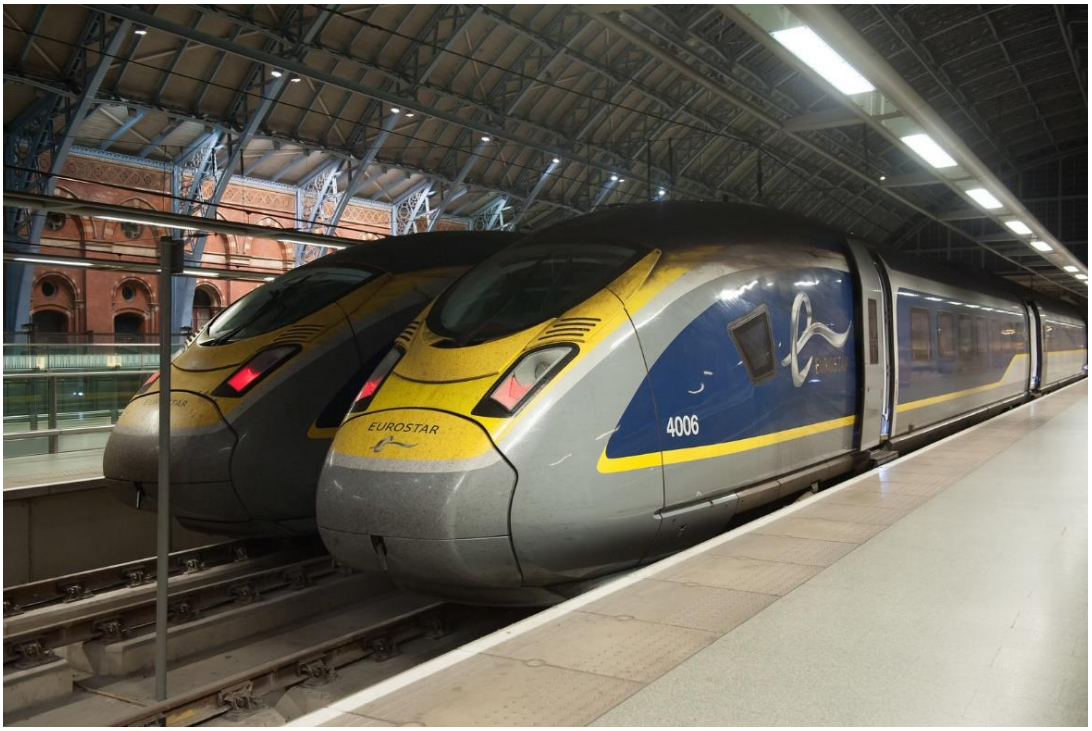
- **Treatment of freight costs.** We need to review available evidence around the extent to which freight traffic drives renewal spend, and what is the most appropriate methodology to reflect this in freight charges. Given the uncertainty in freight volumes over time the analysis also needs to examine whether the relationship changes with different volumes of traffic.

- **Treatment of non-direct costs.** Non-direct costs should be cost reflective, and how they are allocated to different operators will be a focus of the review.

- **Charging model.** The charging model was originally developed in 2009. We will carry out a thorough review of the model and ensure that our model reflects current best practice.

- **Direct cost causation.** We will work with our suppliers to review those costs that vary directly with traffic to ensure this important element of our charges is based on the latest assessment of cost reflectivity.

- **Treatment of R&D expenditure**. For CP3, ORR has approved the inclusion of R&D expenditure in operating and maintenance costs. This was a pragmatic decision to ensure correct allocation of charges to operators. However, ORR considers that R&D expenditure is more closely linked to renewals and we will consider this issue further in our review.



Review of rail charging regimes in Europe

To help inform the Structure of Charges review we are commissioning a review of rail charging regimes in Europe; it will also consider charging arrangements for other concession contracts. The study is looking at the charging regime applicable to other infrastructure managers across Europe with a particular focus on charging arrangements that encourage greater use of spare capacity on the HS1 route, such as:

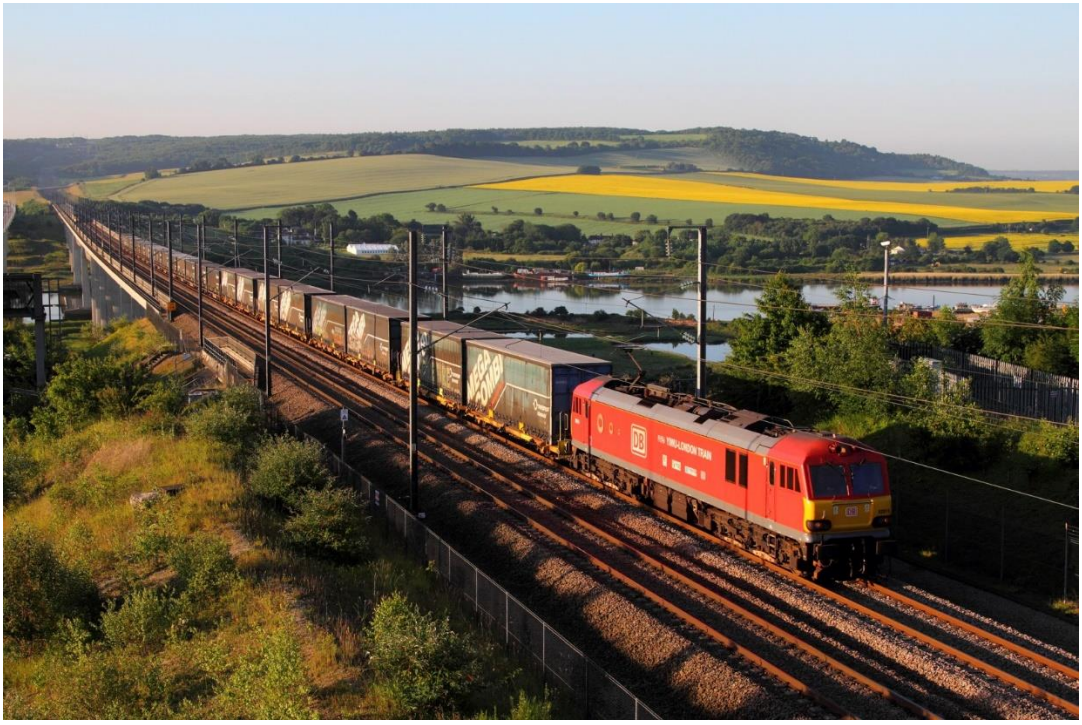
a. growth in traffic from existing operators;

b. new open access passenger operators, and

c. new high speed freight services or other ways to encourage modal shift to rail freight.

The study is also reviewing discount schemes (to consider options for our IRC discount policy) that apply elsewhere, and the way renewals costs are reflected in charges. We would welcome engagement from stakeholders to support this review.

The study will report its findings on other charging regimes as background information in time to help inform the Phase 2 (optioneering) stage of the Structure of Charges Review.



Contractual and regulatory constraints on charges

In undertaking this review, HS1 Ltd must consider relevant contractual and regulatory constraints on charging that are primarily found in:

- the Concession Agreement between the Secretary of State and HS1 Ltd – in particular Schedule 4 in respect of the charging framework[1].
- the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016 – in particular Schedule 3 which governs access charging[2].

[1] The Concession Agreement supplement 2017: https://highspeed1.co.uk/regulatory/key-regulatory-documents/concession-agreement

[2] The Railways regulations 2016: http://www.legislation.gov.uk/uksi/2016/645/made

Consultation questions

We would welcome stakeholder views on the following areas:

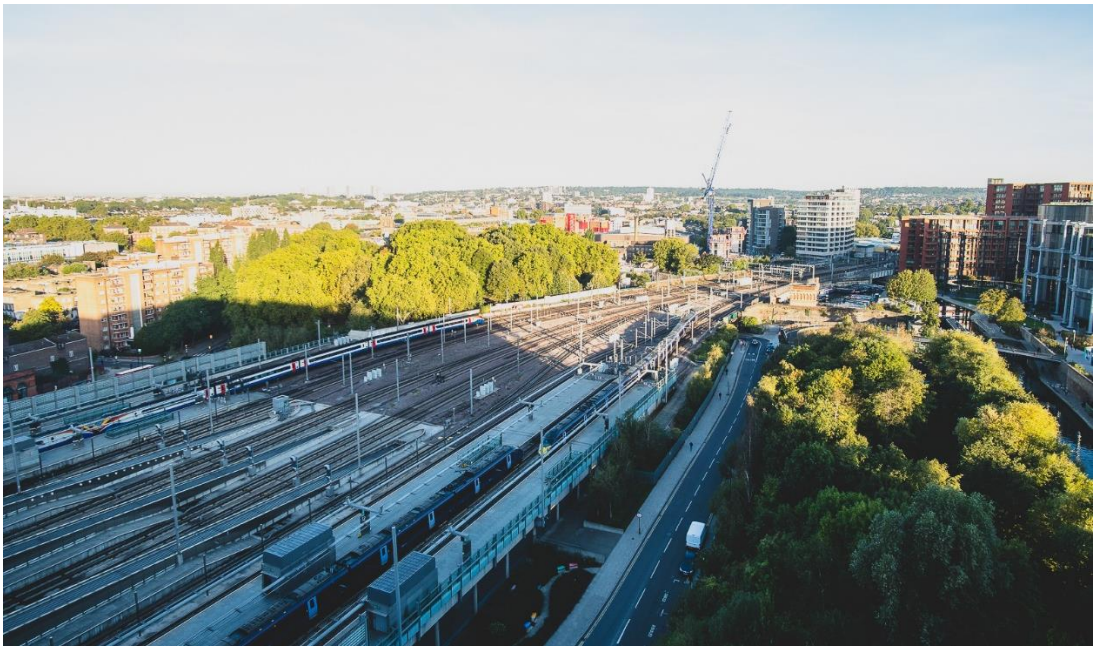
1. How should greater use of the HS1 network be incentivised within the current concession framework?
2. Within the current concession framework, what aspect of the current charging arrangements works well and therefore should not be amended? What aspects do you think needs to change and why, and how would these changes impact behaviour?
3. What role does the level and structure of access charges play in determining whether and the extent to which operators run services? How important are they and why?
4. HS1 coordinates its activities with other IMs. For current and potential new entrants for international services, how can HS1 access charges be set in a way that that is coordinated with Eurotunnel and related IMs in continental Europe (e.g. France, Belgium, the Netherlands)?
5. Should we carry out detailed analysis and cost modelling to make charges that recover directly incurred costs, namely the OMRCA1 variable charge, more cost reflective for different types of vehicle?
6. How should renewals be reflected in charges in a sustainable and fair way?
7. Should the IRC discount policy be amended, and if so, how?
8. Would it help support traffic growth on HS1 if HS1 Ltd developed new market segments, such as for sleeper services or high-speed freight? And if so, how should HS1 Ltd do that?
9. What options do you think exist for promoting competition on the route? What are the barriers to entry? Is it technical, financial, depot access, or is it modal shift?
10. Is the proposed phasing and suggested timeline for the review appropriate and is CP4 the right time to make any changes to the charging regime that may result from this review?
11. Any other comments you wish to make?

Consultation response and timescale

This consultation closes on 23 July 2021. We would welcome your written comments on the questions posed in the previous section or any other aspect related to our charging framework, including the review of other approaches. If you want to discuss anything prior to the closing date, please let us know.

Please send your response by email to James Mackay, HS1 Head of Regulation and Customer Relations at: james.mackay@highspeed1.co.uk

We intend to publish responses to this consultation on our website. However, if you consider that any part of your response is confidential, please state this clearly and provide a non-confidential version suitable for publication.



ANNEX A - Description of current HS1 Charging regime

Overview of the charging framework

This note gives a description of the current HS1 charging framework, the purpose of each charge and how the charges are calculated.

HS1 Ltd's charging framework was established in 2009 by the DfT in the Concession Agreement. Under the framework, track access charges and station charges are levied on passenger train operators (TOCs) and Freight train operators (FOCs) that use the HS1 infrastructure. The charges are set to recover the costs that HS1 Ltd directly incurs in operating, maintaining and renewing HS1 and the long-term project costs incurred from the initial construction and long-term operation of HS1. There are 3 broad types of charge:

- Investment charges (long-term project costs from initial construction);
- Track access charges (ongoing operations, maintenance and renewal), and
- Station charges.

Each charge is set and regulated in one of 4 ways, namely:

- Determined by the ORR at a periodic review of track charges;
- Enshrined in the Concession Agreement;
- Set by the DfT at a periodic review of station charges, or
- Set by HS1 Ltd from actual costs incurred as agreed with train operators.

There are 2 main legal documents that govern HS1 charges as follows:

- The Concession Agreement between the Secretary of State and HS1. Schedule 4 of the December 2017 supplemental agreement relates to the charging framework[3].
- The Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016. Schedule 3 governs access charges[4].

Charges are levied on TOCs and FOCs in accordance with the Track Access Agreements and Station Access Agreements between operators and HS1.

[3] The Concession Agreement supplement 2017: https://highspeed1.co.uk/regulatory/key-regulatory-documents/concession-agreement

[4] The Railways regulations 2016: http://www.legislation.gov.uk/uksi/2016/645/made

Summary of current charges

The following table provides a summary of current charges and includes the approximate annual income from each that was assumed at the time of the last Periodic Review (PR19). Each charge is then described in more detail in subsequent sections of this note.

Description of charge	Approx annual income £m	Who sets the charge	Passenger (P), Freight (F)
Investment Charges			
Investment Recovery Charge (IRC). This is a fixed charge to recover the initial capital cost of building HS1. Charge is levied per train minute (£69.57/min at February 2009 prices). Discounts can be applied.	175	Concession Agreement with DfT	P
Additional Investment Recovery Charge (AIRC). To recover the cost of route enhancements. Currently the only enhancement is that for GSMR. Charge per train minute. No discounts are available.	1	ORR	P
Track Access Charges			
Traction electricity charge. Costs are passed through to operators. There is an annual wash-up for the difference between actual and modelled costs. Operators can procure their own traction electricity but currently none do that.	20	HS1 Ltd	PF
OMRCA1: to recover the directly incurred operations, maintenance and renewal (OMR) costs that vary with traffic and thus reflect the wear and tear of additional trains on the common network. This is a variable charge per train km.	14	ORR	PF
OMRCA2: to recover the avoidable long-term OMR costs on a long run incremental basis. This is where the cost of infrastructure specific to a particular class of operator would be avoided (not required) if that operator ceased running train services. Charges are per train minute for passenger services and per train km for freight services.	10	ORR	PF

OMRCB: to recover common long-term OMR costs such as head office costs and infrastructure costs that are dependent on the length of track but not the volume of traffic. Charges are per train minute and are only paid by passenger train operators.	56	ORR	P
OMRCC: to recover common pass-through costs that in the Concession Agreement are deemed to be largely beyond the control of HS1 such as insurance and business rates. Charges are per train minute and are subject to an annual wash-up for actual costs. Only apply to passenger operators.	19	ORR	P
Capacity reservation charge. This is not used in CP3.	0	ORR	na
Congestion tariff. Not currently used.	0	ORR	na
Carbon costs: these are a fair proportion (as determined by ORR) of all HS1 costs (up to about £10,000 per year) relating to the carbon reduction commitment.	0.01	ORR	PF
Ripple Lane sidings charge. This is a charge per train and is only applied to freight services that both enter and leave the HS1 network via the sidings. The charge is to recover a portion of the costs of operating and maintaining Ripple Lane exchange sidings – the rest of the costs are recovered by freight services running on the HS1 network through OMR charges.	0.1	HS1 Ltd	F
Station Charges			
Station Long Term Charge (LTC): to recover repair and renewal costs at the 4 stations. It is a fixed charge per station and allocated to train operators (EIL, LSER and EMR) based on the number of train departures and the relative size of the areas of the station used by each operator.	9	DfT	P

Station qualifying expenditure (QX): to recover operating and maintenance costs at the 4 stations. Costs are estimated by each station operator and agreed with the TOCs using the station. There is a wash-up every 6 months to reflect the difference between estimated and actual costs. Each station cost is allocated to TOCs based on train departures and relative area used.	32	HS1 Ltd	P
Approx total annual charges income (assumed at PR19)	£336m		

Investment Recovery Charge (IRC)

The purpose of the IRC is to recover the initial construction costs of HS1.

IRC is charged on the basis of chargeable journey time on HS1: the chargeable journey time excludes time for stopping at stations. IRC is paid quarterly in advance on the basis of the number of timetabled train paths as set out in the Working Timetable. There are adjustments for additional services operated as a result of subsequent spot bids and services which could not be operated for certain reasons e.g. cancellation by HS1. IRC is capped at £69.57 per minute per train, in February 2009 prices. The cap is indexed every 6 months by RPI, and at February 2020 prices is £96.09 per minute per train. The IRC cap and indexation were set in the HS1 Concession Agreement and are not subject to review. HS1 is permitted to discount below the IRC cap: the HS1 discount policy and the IRC discount schemes currently in operation are described in the HS1 Network Statement[5]. With the exception of these discounts the IRC charge is currently set at the cap for both domestic and international passenger services.

For each service group, the IRC per train per minute is multiplied by the chargeable journey time of a train, a discount factor (catering for any applicable discount) and an indexation factor. The resulting figure is then multiplied by the number of timetabled trains in the service group for the relevant period which gives the IRC to be paid by the relevant TOC in respect of that period and service group. Indexation is applied semi-annually based on changes in the retail price index. The number of chargeable minutes per train to be used in the calculation of IRC is specified by service group in the Framework Track Access Agreement or the Track Access Agreement for the relevant TOC. Total trains for each period are calculated on the basis of the timetabled paths for the relevant period (as set out in the New Working Timetable (as defined in Part D of the HS1 Network Code) together with any services operated pursuant to a Train Operator Variation (as defined in Part D of the HS1 Network Code)) and not the actual paths used. The recovered charge is adjusted annually to take account of the number of additional

[5] Network Statement: https://highspeed1.co.uk/media/x31jse0d/hs1-network-statement-2021-final-26-may-2020.pdf

services operated by a TOC as a result of Train Operator Variations less any scheduled services which could not be operated by that TOC:

(i) due to a restriction of use;

(ii) as a result of a Suspension Notice (as defined in the HS1 Passenger Access Terms being served by the TOC; or

(iii) as a result of the exercise by the Infrastructure Manager of its rights under Part J of the HS1 Network Code.

Additional Investment Recovery Charge (AIRC)

The purpose of the AIRC is to recover the cost of a Specified Upgrade to route infrastructure on HS1 not covered through the renewals process. For each Specified Upgrade, ORR approval is needed for the efficient cost and the AIRC to be charged to train operators. The Concession Agreement sets out the information to be provided to ORR (the Implementation Information) and the process for ORR approval.

AIRC is determined by calculating the annuity value of the efficient costs of carrying out the upgrade (including financing costs) over the lifetime of the assets in question.

The AIRC is charged on the basis of the chargeable journey time spent by a relevant TOC's trains on HS1. The chargeable journey time does not take into account any time scheduled in the Working Timetable for stopping at a Station. This is consistent with the approach of not imposing IRC on the use of the Stations by TOCs. The IRC discount policy does not apply to AIRC.

At the time of this note, the AIRC charge levied on relevant TOCs is solely for the purpose of recovering the capex costs of introducing GSMR track/train communications on HS1.

The current AIRC is:

- £1.00 per minute (February 2020 prices) subject to indexation for international passenger services; and
- £0.37 per minute (February 2020 prices) subject to indexation for domestic passenger services.

Traction Electricity Charge (EC4T)

The purpose of this charge is to recover traction electricity costs.

If traction electricity is procured by HS1 on behalf of the TOCs, all the costs incurred in respect of traction electricity are passed through to the TOCs. The traction electricity charge is arrived at by calculating the product of the calibrated modelled consumption rate of the relevant rolling stock, a rate for traction current as published on the HS1 website (including an uplift to that amount to take account of transmission losses and specific charges levied by the UK

national grid provider) and the usage measured in vehicle-kilometres. There is an annual wash-up (adjustment) to reflect any difference between the modelled and actual cost of traction electricity.

HS1 does not currently have the billing capability to charge train operators based on meter usage, however, should we receive a request to bill in this way, we would set up a working group to facilitate such a change to our systems.

TOCs have the option to procure their own traction electricity with the prior written consent from HS1. The relevant TOC shall bear all expenses, payments, liabilities, costs and losses (including transmission losses) with regard to the procurement of traction electricity itself and of any additional metering equipment or system costs required for implementation and administration. To date this option has not been exercised, and in the event of a request to do so, we would set up a working group to establish how it would work in practice.

Operations, Maintenance and Renewal (OMR) Charges

The purpose of OMR charges is to recover the operations, maintenance and renewal costs for track assets (track, bridges, tunnels, signalling, earthworks, drainage, electrification and telecommunications); station costs are recovered separately through station charges. The OMR charges are determined by the ORR at 5-yearly periodic reviews. The last review, PR19, covered Control Period 3 (CP3) and set charges for the 5 years from 2020/21 to 2024/25.

The 2016 Railway Regulations require OMR costs to be divided into direct costs and non-direct costs where:

1. Direct costs are those that are directly incurred as a result of running trains on the network. Hence they relate to the wear and tear caused by traffic and mainly apply to rail maintenance and renewal. Charges to recover these costs are levied under the general charging principle (i.e. in accordance with paragraph 1(4) of Schedule 3) of the Railways Regulations 2016.

2. Non-direct costs are other OMR costs that are incurred as a result of having the track assets and maintaining them in a serviceable condition as they gradually degrade with age, weather or obsolescence. We refer to these as avoidable or common costs and charges to recover them are levied on the basis of long-term costs of the operational phase of HS1 (i.e. the Second Exception in the Regulations).

There are 4 categories of OMR costs; one is a direct cost and 3 are non-direct as follows:

Direct Costs

- OMRCA1: directly incurred costs that vary with traffic.

Non-direct Costs

- OMRCA2: avoidable long-term costs on long run incremental basis. These costs are dependent on the length of track but independent of traffic.
- OMRCB: common long-term costs.
- OMRCC: common pass-through costs.

Thus, the total OMR cost is divided into these 4 categories. Charges for each of the 4 categories are described in more detail in the following sections.

OMRCA1: Direct OMR charge for variable track costs

This charge is to recover the directly incurred OMR costs that vary with traffic and thus reflect the wear and tear of additional trains on the common network. This is a variable charge per train km and is payable by both passenger train operators and freight train operators.

We have a detailed breakdown of maintenance and renewal costs and use that and our assessment of cost causation to allocate relevant costs to the category of directly incurred. For example, the majority of costs relating to (1) rail grinding, (2) track tamping, (3) rail replacement, and (4) overhead line contact wire replacement are driven by traffic and so they form a significant part of directly incurred costs. By contrast, the volume of work for most other maintenance and renewal activities are driven by design life and other external factors, such as natural degradation from weather, and thus not affected by the operation of trains and so do not form part of OMRCA1.

Directly incurred costs are allocated to passenger and freight train services in proportion to the relative traffic of each service on the network as measured by equivalent million gross tonne kms.

OMRCA2: Avoidable long-term OMR charge

This charge is to recover the avoidable costs on a long run incremental cost basis where the costs of infrastructure specific to a class of operator (e.g. international passenger train operators) that would be avoided (i.e. not required) in the event that that class of operator ceased operating services are allocated to that particular class of operator. An example is the section of infrastructure from Ashford International to the Channel Tunnel which is used only by international passenger operators. Under our Concession Agreement we must continue to look after and hand back assets in line with our asset stewardship obligations. Avoidable costs are therefore net of the costs which would be incurred to mothball assets if a specific class of operator ceased to operate on HS1. The mothballing costs are instead added to common costs.

The total track dependent OMR cost is apportioned on track length between different classes of operator, namely:

- International only track;
- Domestic only track;
- Freight-specific costs, and
- Common track used by both international and domestic operators (allocated to OMRCB).

The freight-specific element of cost is divided by freight train kms to determine the freight OMRCA2 charge per train km.

The OMR cost for the track used by both international and domestic services is allocated to common OMR costs and hence included in OMRCB (see next section). Charges for international and domestic services are calculated using journey times for different services to give charges per train minute.

OMRCB: Common long-term OMR cost charge

This charge is to recover common costs such as: (1) track dependent costs for the length of track used by both international and domestic services, (2) head office costs and (3) other infrastructure costs that vary with the length of track but not the volume of traffic.

Conventional freight services (i.e. not high-speed freight) only pay OMRCA1 and OMRCA2 charges and so charges for common long-term costs are allocated between international and domestic operators only. Charges are calculated using journey times for different services to give charges per train minute.

OMRCC: Common pass-through cost charge

This charge is to recover pass-through costs. These are common costs that in the Concession Agreement are deemed to be largely beyond HS1 Ltd's control, such as insurance and business rates. For this category of cost, there is an annual wash-up process to adjust for differences between forecast and actual costs. As noted previously, traction electricity costs are also pass-through costs but are treated separately for charging and so do not form part of OMRCC.

Conventional freight services (i.e. not high speed freight) only pay OMRCA1 and OMRCA2 charges and so charges for common pass-through costs are allocated between international and domestic operators only. Charges are calculated using journey times for different services to give charges per train minute.

Capacity reservation charge

The Railways Regulations 2016 (Clause 17) allows an infrastructure manager to levy a Capacity Reservation Charge for capacity that is requested but not actually used (i.e. not timetabled). However, there is currently spare capacity on the HS1 route and so, with agreement from the ORR, we have suspended the charge for CP3.

Congestion tariff

Clause 1(8) of Schedule 3 of the Railways Regulations 2016 authorises an infrastructure manager to levy a charge to reflect the scarcity of capacity of the identifiable segment of the infrastructure during a period of congestion. If at any time HS1 becomes congested within the meaning of Regulation 26 of the Railways Regulations 2016, we will consider the possibility of conducting an auction for capacity on HS1, which could give rise to a congestion tariff. However, in the meantime there are no congestion charges in CP3.

Carbon cost charge

The Carbon cost charge is to recover the fair and equitable proportion (as determined by the ORR) of all costs, expenses and any other financial liabilities relating to the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme.

The scheme excludes energy used by trains and network services such as signalling systems but includes energy used for heating, lighting and power in buildings. The majority of our costs in relation to the CRC Energy Efficiency Scheme are therefore related to stations and there are provisions to recover them in the Station Access Conditions. The elements of CRC Energy Efficiency Scheme costs which are included in the track access charges include costs related to the office at the Singlewell infrastructure maintenance depot and the HS1 office. The CRC payment related to track access charges is approximately £10,000 per annum. The HS1 Access Terms require that any costs borne by the train operators as a result of meeting our commitments will be subject to approval of the ORR.

Ripple Lane sidings charge

The purpose of the Ripple Lane charge is to recover costs for operating and maintaining the Ripple Lane exchange sidings.

The charge is only applicable to freight services which both enter and leave HS1 infrastructure via the Ripple Lane exchange sidings, but do not run on the mainline (therefore not attracting the other freight charges described above). A proportion of this cost is recovered from freight services running on mainline HS1 infrastructure through the OMRCA charges, with the remainder recovered through this Ripple Lane Charge. The current charge is set on the basis of the actual number of applicable movements in 2018/19 – this was 2,745. This charge is subject to a volume re-opener where actual services in the subsequent year are 12.5% higher or lower than the number run in the previous year. The current charge is £57.21 per train movement (at February 2020 prices).

Stations Long Term charge (LTC)

The purpose of the Stations Long Term Charge (LTC) is to recover repair and renewal costs at the four HS1 stations, namely the international stations at St Pancras, Stratford, Ebbsfleet and Ashford. It is a fixed charge per station determined by the DfT at a periodic review. The charge per station is allocated to train operators (EIL, LSER and EMR) based on the number of train departures and the relative size of the areas of the station used by each operator.

The HS1 Station Leases require us to produce Life Cycle Reports (LCRs) for each station in advance of the five-year control periods. The LCRs set out the renewal and replacement works due to be carried out at the four stations. These works are funded via the LTC that is levied on the train operators using the HS1 Stations. The LCRs are used to produce a Life Cycle Cost (LCC) model for each station which form the key input to the LTC financial model. The LTC is set through the calculation of an annuity to smooth the profile of payments over the Life Cycle Period (in this case over a period of 40 years).

The LTCs set by the DfT at PR19 are as follows (in 2018/19 prices):

- St Pancras £5.76m
- Stratford £1.17m
- Ebbsfleet £1.24m
- Ashford £0.66m

Stations Qualifying Expenditure (QX)

The Stations Qualifying Expenditure (QX) charge is to recover operating and maintenance costs at the four stations. The charge is not set by the ORR or DfT but instead it reflects actual costs incurred. Costs are estimated by each station operator and agreed with the TOCs using the station. There is a wash-up every 6 months to reflect the difference between estimated and actual costs. Each station cost is allocated to TOCs based on train departures and relative area used.

Review of charges due to changed traffic – Volume Re-opener

The access contracts between HS1 and train operators contain provisions for some charges that had been set by ORR for the 5-year control period to be reviewed (at a Review Event) as a result of significant changes in traffic; this is termed the volume re-opener. A Review Event occurs if the anticipated number of train movements in the year is at least 4% more or less than the actual number of train movements.

When the volume re-opener is triggered, the access contracts require HS1 to re-apportion the amount of Avoidable Long-Term Costs and Common Long-Term Costs between train operators. The purpose of this mechanism is to ensure that HS1 Limited does not over or under recover certain fixed costs associated with the operation and maintenance of HS1. The result of a volume re-opener is to change the two relevant charges, OMRCA2 and OMRCB.

Indexation of charges to reflect inflation

All charges that are set in the Concession Agreement or determined by ORR or the DfT at periodic reviews are indexed to reflect the impact of inflation and, in each case, it is RPI that is used. Most of the charges described in this note are subject to RPI indexation; the exceptions are those that are set in accordance with actual costs incurred.

Impact of renewals annuity on charges

There is a difference in the way operation and maintenance (O&M) costs are reflected in charges to the way renewals costs are treated:

- For O&M costs a constant annual payment is calculated such that the present value of the annual payment is equal to the present value of the CP3 O&M costs (excluding pass through costs);
- For renewals we use a projection of renewals costs over a 40-year period and convert that projection into an annuity which forms the renewal element of OMR charges paid by train operators.

The funds collected from the renewals element of OMR charges are paid into a separate escrow account each quarter which can only be used for the funding of renewals.

The way the renewals annuity was assessed, particularly over the timeframe it was calculated, was considered by ORR in its final determination for the last periodic review. The ORR noted that using a 40-year calculation period (that is, the 'pay-ahead' time period) smooths the financial impact on operators; is consistent with the principle that users should pay for their use of the assets; and supports intergenerational equity. Using a shorter period of time would mean that the renewals annuity calculation would not include expenditure related to some of the assets operators are using today, but that will not be renewed in the next 20 years. This is particularly important as the more expensive last 20 years of the 40-year forecast would be excluded from the calculation. Excluding those years from the calculation increases the chance of increases in the renewals annuity in the future and therefore is less consistent with the principle that "user pays" and less supportive of inter-generational equity.