***Subject:*** ***HS1: Track Access Charges Framework in PR19***

***Date:*** ***May 2019***

## 1. Purpose

As part of the PR19 process, HS1 Ltd (**HS1**) has considered whether our Charging Framework is compliant with relevant laws and regulations. HS1's review indicates that due to recent changes in European rules on charging for access to railway infrastructure, changes need to be made to the categorisation of certain charges by 2 August 2019.

HS1's Draft Five Year Asset Management Statement (**5YAMS**) issued in February 2019 described the proposed changes to the Charging Framework for CP3. This note expands on the Draft 5YAMS by outlining the specific impacts of the recent changes in European rules and setting out the proposed changes to the HS1 Charging Framework in further detail.

While this note sets out the proposal for CP3 charges, it is also necessary to consider the impact of the changes in European rules on HS1's charges for the balance of CP2 – i.e., between 2 August 2019 (when the changes take effect) and 31 March 2020 (the end of CP2). Changing the way that charges are determined for a control period part-way through the final year of that control period is unusual and administratively cumbersome. It is also unclear whether making such changes would trigger a re-opener to previously determined charges. While we propose to consult now on the changes to the Charging Regime for the balance of CP2 and for the duration of CP3, we only propose to assess the impact of the changes on actual charges for the balance of CP2 following the ORR's Final Determination in January 2020. HS1 then proposes to apply any difference in charges during CP2 as a wash-up following the end of CP2.

HS1 welcomes views from train operators using the HS1 network regarding the proposed changes to the HS1 Charging Framework for CP3 and the proposed approach to charges for the balance of CP2. Please kindly respond by **19 June 2019**.

## 2. Background

The HS1 Charging Framework is set out in Schedule 4 of the Concession Agreement between HS1 and the Secretary of State. HS1 must ensure that the Charging Framework complies with the *Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016* (the **Regulations**).

Paragraph 1(4) of Schedule 3 to the Regulations sets out a principle that charges must be set at the cost that is directly incurred as a result of operating the train service (the **Charging Principle**). The Regulations acknowledge that charging for only "directly incurred" costs may result in an infrastructure manager recovering an amount that is lower than the total cost of providing the infrastructure services by setting out two exceptions to the Charging Principle that allow infrastructure managers to recover its costs in full. The exceptions are discussed in detail at section 7 of this note, and are summarised as follows:

(a) mark-ups which do not exclude the use of infrastructure by market segments which can pay at least the cost that is directly incurred as a result of operating the railway service plus a rate of return which the market can bear; and

(b) higher charges based on the long-term costs of the project.

HS1 levies three types of charge on its operators under the Charging Framework:

(a) Investment Recovery Charge (**IRC**) for recovering the capital costs associated with the construction of HS1. The maximum amount of this charge is governed by the Charging Framework contained in the Concession Agreement. The IRC is monitored by ORR but does not form part of the periodic review process;

(b) Additional Investment Recovery Charge (**Additional IRC**) for specified upgrades that enhance HS1 assets. Additional IRC is monitored by ORR; and

(c) Operation, Maintenance and Renewal Charges (**OMRC**) to recover the cost of the ongoing operation, maintenance and renewal of HS1 assets. The OMRC is set after ORR has determined HS1's efficient costs during the periodic review process and ORR has agreed to the way that costs are turned into charges.

OMRC is comprised of:

(a) charges in respect of costs directly incurred as a result of operating train services; and

(b) charges in respect of fixed and common costs, payable to HS1 irrespective of the level of usage on High Speed 1 (see clause 7, Schedule 10, Concession Agreement).

OMRC is further categorised into four charges:

(a) OMRCA1 - The variable costs reflecting wear and tear of additional trains on the network. This mainly relates to some of our track costs. In CP2, OMRCA1 was levied pursuant to the Charing Principle – i.e., costs directly incurred as a result of operating the train service.

(b) OMRCA2 - The avoidable costs on a long run incremental basis where the costs of infrastructure specific to a class of operator would be avoided if that operator ceased services. In CP2, OMRCA2 was levied pursuant to the Charing Principle – i.e., costs directly incurred as a result of operating the train service.

(c) OMRCB - The common costs of managing the network that cannot be considered avoidable. In CP2, OMRCB was levied pursuant to the second exception to the Charging Principle – i.e., the long-term costs of the project.

(d) OMRCC - The pass through costs that are largely beyond the control of HS1 such as insurance and rates that are subject to an annual wash up process. In CP2, OMRCC was levied pursuant to the second exception to the Charging Principle – i.e., the long-term costs of the project.

Since the commencement of CP2, the Regulations have implemented EU rules on railways contained in Directive 2012/34/EU, which replaces Directive 2001/14/EC (see sub-paragraph 1(5) of Schedule 3 to the Railways Regulations). These changes are supplemented by several Commission Implementing Regulations, including CIR

2015/909 concerning ‘modalities for the calculation of the cost that is directly incurred as a result of operating the train service’ (the **Modalities CIR**). The Regulations require infrastructure managers to set charges by reference to the Modalities CIR from no later than 2 August 2019. The main impact of the Modalities CIR is to provide greater definition and clarity regarding what OMR costs should be classified as “directly incurred” by train services on the network. The consequence of this is that certain costs require reallocation – described further in sections 3 to 5 below.

HS1 does not propose any changes to the categorisation of OMRCC (pass through costs), so these will not be addressed in this note.

## 3. Proposals for OMRCA1 (variable costs)

Article 3(1) of the Modalities CIR provides that direct costs should be calculated as the difference between the total costs identified for providing access to infrastructure less the non-eligible direct costs set out in Article 4. The costs that are not eligible for treatment as direct costs are:

- fixed costs for provision of a line which must be born even in the absence of train movements (mothballing costs);
- costs that do not relate to payments made by the infrastructure manager; costs or cost centres that are not directly linked to the provision of the minimum access package or to infrastructure connecting service facilities;
- cost of acquisition, selling, etc land or other fixed assets;
- network-wide overhead costs, including overhead salaries and pensions;
- financing costs;
- costs relating to technological progress or obsolescence;
- costs of intangible assets;
- costs of track-side sensors, track-side communication equipment and signalling equipment if not directly incurred by operation of the train service;
- cost of information, non-track side located communication equipment;
- costs related to individual incidences of force majeure, accidents and service disruptions;
- cost of electric supply equipment for traction current if not directly incurred by operation of the train service;
- depreciation which is not determined based on real wear and tear of infrastructure due to train service operation; and
- the part of the costs of maintenance and renewal of civil infrastructure that is not directly incurred by operation of the train service.

The effect of the Modalities CIR on OMRCA1 (variable costs) is that financing costs can no longer be attributed as a direct cost. In CP2, OMRCA1 (variable costs) included all track renewal costs and 50% of OLE renewal costs. For the balance of CP2 and for CP3, we propose to reallocate the financing element associated with these renewal charges to OMRCB (common costs). For completeness, the following table summarises the allocation of costs in CP2 and the proposed changes in allocation for CP3.

| Categorisation of directly incurred variable costs (OMRCA1) | | |
|---|---|---|
| Cost item | Allocation to OMRCA1 | Changes for CP3 |
| **Renewals costs** | | |
| Track renewals (exc. financing costs) | 100% | Reallocate financing costs to OMRCB |
| Overhead line renewals (exc. financing costs) | 50% | Reallocate financing costs to OMRCB |
| **NR(HS) operation & maintenance costs** | | |
| Tamping plant & machinery | 80% | No change |
| Rail grinding plant & machinery | 80% | No change |
| S&C grinding plant & machinery | 80% | No change |
| Infrastructure staff payroll costs | 20% | No change |
| Specialist contractor costs | 20% | No change |

## 4. Proposal for OMRCA2 (avoidable costs)

The Modalities CIR have removed the ambiguity present during CP2 regarding the definition of "direct costs". The effect of the Modalities CIR has been to confirm that OMRCA2 (avoidable costs) are more appropriately levied as long-term costs of the project (under the second exception to the Charging Principle), rather than as direct costs. We note that the definition of OMRCA2 in the HS1 Passenger Access Terms, HS1 Freight Access Terms, HS1 Network Statement and standard HS1 Track Access Agreements will therefore need to be amended to remove references to OMRCA2 as avoidable "directly incurred costs". We propose to instead describe these costs as avoidable "long-term costs".

## 5. Proposal for OMRCB (common costs)

The changes in cost allocation described in sections 3 and 4 of this note and HS1's further review of the Charging Framework has identified the need to reallocate certain other costs, described in the table on the next page.

| **Categorisation of avoidable long-term costs (OMRCA2) and common costs (OMRCB)** | | | |
|---|---|---|---|
| Cost item | OMRCA2 allocation (avoidable long-term costs) | OMRCB allocation (common costs) | Changes from CP2 and notes |
| **<u>Renewals costs</u>** | | | |
| Financing costs | | 100% | Moved from OMRCA1 |
| Track related civils assets (exc. financing costs) | 100% | | No change |
| Other civils assets | | 100% | No change |
| Bridgeworks (exc. financing costs) | 50% | 50% | No change |
| Overhead line renewals (exc. financing costs) | 50% | | No change (other 50% is OMRCA1) |
| Other renewals inc. M&E assets and plant (exc. financing costs) | 50% | 50% | No change |
| | | | |
| **<u>NR(HS) operation & maintenance costs</u>** | | | |
| Tamping plant & machinery | 2~~8~~0% | | No change (rest is OMRCA1) |
| Rail grinding plant & machinery | 20% | | No change (rest is OMRCA1) |
| S&C grinding plant & machinery | 20% | | No change (rest is OMRCA1) |
| Infrastructure staff payroll costs | 8~~2~~0% | | No change (rest is OMRCA1) |
| Specialist contractor costs | 80% | | No change (rest is OMRCA1) |
| Operations and safety assurance payroll | 100% | | No change |
| Procurement and other general back office services activities payroll | | 100% | Move from OMRCA2 to common costs |
| Management payroll costs | | 100% | No change |
| Project recoveries payroll | 17% | 83% | Move 83% from OMRCA2 to common costs |
| NR national functions | 15% | 85% | Move 85% from OMRCA2 to common. 15% relates to timetabling. |

| | | | |
|---|---|---|---|
| Maintenance trains, vehicles, track recording plant and infrastructure freight haulage | 100% | | No change |
| Materials and security of infrastructure | 100% | | No change |
| Consultancy and professional services | | 100% | Move from OMRCA2 to common |
| Other Network Rail (High Speed) costs | | 100% | Move from OMRCA2 to common |
| Additional services requested by HS1 | | 100% | Move from OMRCA2 to common |
| Enhanced maintenance | 100% | | No change |
| Risk premium and management fee | | 100% | Move from OMRCA2 to common |
| | | | |
| **HS1 costs** | | | |
| HS1's own costs | | 100% | No change |

## 6. Calculation of direct unit costs

Article 5 of the Modalities CIR states that average direct unit costs should be assessed by vehicle or train kilometres, or by gross tonne kilometres. However, Article 6 of the Modalities CIR provides the following exception:

> *The infrastructure manager may calculate direct unit costs by means of robustly evidenced econometric or engineering cost modelling, provided it can demonstrate to the regulatory body that the direct unit costs include only direct costs incurred by the operation of the train service and, in particular, do not include any of the costs referred to in Article 4.*

HS1 calculates freight variable charges on a £ per train km basis, consistent with Article 5 of the Modalities CIR. However, HS1 calculates passenger variable usage charges on a £ per minute basis. Having reviewed the exception in Article 6 of the Modalities CIR, it is HS1's view that the current method of charging passenger services on a £ per train minute basis remains valid because it is a robust modelling approach. The CP3 Charging Framework splits costs into appropriate categories for traffic-dependent costs, infrastructure-dependent costs and fixed common costs. It also identifies track km and average speed, and journey times or train minutes for different types of train service. In terms of the categorisation of direct costs, the proposed changes to cost allocation described above meet the requirements of the Modalities CIR and appropriately allocate direct costs. Finally, we observe that journey time is an important factor on a high-speed network and useful in helping to optimise capacity. Charging by minute is compatible with this principle.

## 7. Exceptions to the Charging Principle

As noted in section 2 of this paper, the Regulations set out two exceptions to the Charging Principle. Where an exception applies, the infrastructure manager may levy charges over and above those covered by the Charging Principle and thereby recover its costs in full.

The first exception permits mark-ups which the market can bear and is prescribed in the Regulations in paragraph 2 of Schedule 3. Key sub-paragraphs are set out as follows:

2 (1) In order to obtain full recovery of the costs incurred the infrastructure manager, with the approval of the Office of Rail and Road or, in relation to a rail link facility, the Secretary of State, may levy mark-ups on the basis of efficient, transparent and non-discriminatory principles, whilst guaranteeing optimum competitiveness, in particular in respect of rail market segments. (2) For the purposes of this paragraph—

(a) approval given by the Secretary of State in relation to a rail link facility must be given through the development agreement; and

(b) approval given by the Office of Rail and Road must—

(i) in relation to railway infrastructure subject to the access charges review, be given as part of that review; and

(ii) in relation to any other railway infrastructure, be given in such form or manner as the Office may require.

(3) The effect of sub-paragraphs (1) and (2) must not be to exclude the use of infrastructure by market segments which can pay at least the cost that is directly incurred as a result of operating the railway service, plus a rate of return which the market can bear.

The second exception permits the recovery of long-term project costs and is set out in the Regulations at paragraph 3 of Schedule 3 as follows:

3. (1) Subject to sub-paragraph (2), for specific investment projects completed—

(a) since 1988; or

(b) following the coming into force of these Regulations, the infrastructure manager may set or continue to set higher charges on the basis of the long-term costs of the project.

(2) For sub-paragraph (1) to apply—

(a) the project must increase efficiency or cost-effectiveness; and

(b) the project must be one that could not otherwise have been undertaken without the prospect of such higher charges.

(3) A charging arrangement to which sub-paragraph (1) applies may incorporate agreements on the sharing of the risk associated with new investments.

In CP2, HS1 applied the second exception to the Charging Principle to recover costs other than directly incurred costs. It is HS1's position that the same approach remains valid for CP3. Paragraph 3 of Schedule 3 of the Regulations requires that in order to justify higher charges based on the long-term costs of the project, the project: (a) must increase efficiency or cost-effectiveness; and (b) could not otherwise have been undertaken without the prospect of such higher charges.

The first condition is satisfied because the building and operation of HS1 has achieved substantial efficiencies in terms of journey time on inter-capital routes. It also delivers very substantial improvements on journey time for Kent commuters. The project creates enhanced transport hubs at King's Cross / St Pancras and Stratford and a new hub at Ebbsfleet. It contributes to wider economic efficiency by enabling the regeneration of land at those locations. Cost-effectiveness of the project is demonstrated by its delivery in accordance with the planned timetable and budget. Further, HS1 is subject to five-yearly periodic reviews under the Concession Agreement.

The second condition is satisfied because the nature of the construction of HS1 and the private risk that was taken was possible only with the prospect that the full costs of running the railway would be recovered. This applies to both the construction phase and the current phase with HS1 as the concession-granted operator.

HS1 sees no reason to depart from use of the second exception (to the Charging Principle to recover the total costs of HS1 less the cost directly incurred.

## 8. Freight Charges in CP3

HS1 established several principles in relation to freight charges in the second consultation document on track access charging published in June 2011, copied below:

- *“The proposed charges have also been set so that they should encourage, as far as possible, the maximum use of HS1 subject to the need to recover investment costs and:*
    - *encourage the use of HS1 as a high-speed railway for which it was conceived, designed and financed;*
    - *not discourage the use of intermediate stations on HS1; and*
    - *recover investment fairly between different types of user.”* (Paragraph 21, June 2011 Track Access Charging Document).
- “*HS1 Limited’s main objectives with respect to the freight charging framework are to:*
    - *attract freight traffic which can bear the additional costs incurred by HS1 Limited as a result of freight services running on HS1; and*
    - *create a flexible charging framework which allows for future adaptation to enable freight services to make a contribution to common costs where possible.”* (Paragraph 67, June 2011 Track Access Charging Document).
- *“The HS1 line was built primarily for high speed passenger trains with freight as a potential future additional service. Thus, freight access charges should reflect the marginal costs to HS1 Limited of providing for freight services. In the context of freight, directly incurred costs can therefore be defined as the long run incremental costs of freight (i.e. the costs that would be avoided in the long run if freight did not operate on the line).”* (Paragraph 70, June 2011 Track Access Charging Document).

Freight operators are only charged for two of the four categories of OMRC in CP2. The two categories are:

(a) OMRCA1 – freight directly incurred costs; and

(b) OMRCA2 – freight avoidable long-term costs, which is comprised of: (1) track-dependent costs; and (2) other freight specific costs.

HS1 is are not proposing any changes for CP3 freight charges other than the changes proposed to definitions and allocations described earlier in this note to reflect the impact of the Modalities CIR. HS1 will continue to rely on the second exception to the Charging Principle (i.e., the long-project term costs exception) to recover total costs. HS1 does not propose to levy any charges on the basis of the first exception to the Charging Principle (i.e., a mark-up that the market can bear). The table below describes HS1's assessment of OMR costs in respect of freight for charging purposes.

| Cost Component | Calculation for freight charges |
|---|---|
| **Directly incurred costs**<br>**OMRCA1** | OMR spend *in addition* to that required to satisfy passenger usage, as a result of freight traffic operating on shared infrastructure.<br>Based on the weight of a class 92 locomotive and 20 wagons (empty in one direction), freight has a 6.44% share of equivalent gross mega tonne per annum (EGMTPA) over shared infrastructure. This is used in the engineering relationships around maintenance and renewals costs. The share of EGMTPA is multiplied by the relevant component of the efficient OMRC budget (the track and traffic dependent element) to identify the freight variable OMR.<br><br>This element of the charge is levied on a train kilometre basis which is derived by the number of paths (454 per annum) times the distance between the channel tunnel boundary and Ripple Lane Sidings (88.2km) |
| **Avoidable track-dependent costs**<br>**OMRCA2** | Costs relating to track dedicated to freight use. Covers the contract in relation to Ripple Lane sidings, and a share of the overall efficient OMR cost that relates to Cheriton Chord.<br><br>The Operation and Maintenance costs are charged at a rate of 10% of actual costs to reflect the decreased costs due to low freight volumes. This applies to 5.6km of freight specific track and is made up of the following (nearest 10m):<br><br>- Dollands Moor Cross Over and Junction – (350m)<br>- Cheriton Chord (1450m)<br>- NR interface to Channel Tunnel (1200m)<br>- North London Connection (710m)<br>- Ripple Lane Siding Access (2300m) |
| **Avoidable freight specific costs**<br>**OMRCA2** | Non-infrastructure costs that would be avoided if freight traffic did not operate over HS1 in the longer-term. Includes staff cost and other administrative resources such as legal advice. |