

To: All Metered Train Operators (c2c, First Capital Connect, First Scotrail, London Midland, Southern Railway and Virgin Trains).

Cc: Metering Steering Group members and all electric train operators.

Thursday 16 February 2012

Dear colleague,

Voting on Proposed EC4T Metering Rules Change

1. Purpose of this letter

This letter sets out the next steps in relation to the proposed changes to the EC4T¹ Metering Rules and Schedule 7² of the model freight track access agreement³ (TAA) to accommodate the use of on-train metering⁴ (OTM) by:

- Freight services;
- locomotive-hauled passenger services;
- variable lengths of electric multiple units (EMUs); and
- borrowed trains.

2. Modified proposal

We consulted on these changes in December 2011⁵, thank you to those of you who responded to that consultation. The responses are available on our website⁶. A summary of the issues raised and our responses are set out in Appendix B.

¹ EC4T – Electric Current for Traction

² Schedule 7: TRACK CHARGES, this schedule sets out the provisions for track access charges payable by the train operator to Network Rail.

³ ORR, October 2011, “Model freight track access contract”: <http://www.rail-reg.gov.uk/upload/doc/ta-ftgmodcntrct-051011.doc>.

⁴ On-train metering is where an operator is billed for its use of traction electricity by way of metered data.

⁵ Network Rail, December 2011 “Changes to EC4T Metering Rules and Freight Schedule 7 – consultation letter”: [http://www.networkrail.co.uk/uploadedFiles/networkrailcouk/Contents/Improvements/On_Train_Metering/Documents/Changes%20to%20EC4T%20Metering%20Rules%20and%20Freight%20Schedule%207%20-%20Consultation%20Letter%20\(Dec%202011\).pdf](http://www.networkrail.co.uk/uploadedFiles/networkrailcouk/Contents/Improvements/On_Train_Metering/Documents/Changes%20to%20EC4T%20Metering%20Rules%20and%20Freight%20Schedule%207%20-%20Consultation%20Letter%20(Dec%202011).pdf).



In light of the comments received, we attach a modified proposal. This modified proposal reflects minor legal drafting amendments. It also reflects some amendments in response to DB Schenker's point about infilling by Train Service Code (instead of Train Service Group) to achieve increased accuracy (this is discussed in more detail in Appendix B). We agree with this point, and have amended the rules to reflect this. A summary of the amendments are set out in the attached modified proposal, and are summarised in Appendix A.

We do not consider the drafting changes to be material, and therefore we propose to put the modified proposal to a vote in accordance with paragraph 11.9 of the EC4T Metering Rules. We can confirm that we are satisfied that the modified proposal is both legally robust and functionally fit for purpose.

3. *Clarification*

We wish to clarify a potential misunderstanding from our consultation letter on 2 December 2011. We note that page 2 of the letter could have been read as suggesting that there would be a second consultation on the proposed metering rules change at a later point when a train operator next seeks to adopt OTM. This is not the case.

For the avoidance of doubt, we plan to progress the proposed metering rules change, with the drafting changes that we have made, with the intention that this change will come into effect on 1 April 2012. There would not be a further consultation on this.

However, if a train operator subsequently wishes to opt-in to OTM, there would be a consultation on its section 22 track access application. The EC4T Metering Rules would not be formally consulted again on at this stage, because they would already be in existence. Though if it was necessary to make a change to the EC4T Metering Rules to enable an operator to move to OTM, there would of course be a consultation on this.

4. *Voting procedures and next steps*

Subject to there being no material concerns with the proposed approach to continue to a vote, the vote will be carried out in the week beginning **27 February 2012**, in accordance with paragraph 11.9 of the EC4T Metering Rules. This is set out in Appendix C for ease of reference. The vote will be open to:

- c2c;
- First Capital Connect;
- First Scotrail;
- London Midland;
- Network Rail;
- Southern Railway; and

⁶ Consultation responses accessible here: <http://www.networkrail.co.uk/asp/12873.aspx>.



- West Coast Trains.

The vote is open to Network Rail and all metered operators (and operators that have formally opted-in to OTM for April 2012). It is our understanding that ORR will take into account the results of our December consultation, including non-metered operators.

If a majority of votes cast are in favour of the modified proposal, we shall submit the proposal to ORR in accordance with paragraph 11.13 of the EC4T Metering Rules.

If you have any concerns about the proposal to continue to vote, please contact Gabriela Weigertova (Gabriela.Weigertova@networkrail.co.uk) or myself before 27 February 2012.

A copy of this letter and attachments will be placed on the Network Rail website at: <http://www.networkrail.co.uk/asp/12873.aspx>.

Yours sincerely,

Ekta Sareen

Senior Regulatory Economist, Network Rail



Appendix A – Legal drafting amendments

1. *EC4T Metering Rules*

- a. Throughout the document, where there are references to locomotive-hauled journeys, we have specified that these are locomotive-hauled passenger journeys.
- b. For clarification, in paragraph 1.2, we have inserted definitions for “Consist Tonnage”, “Electricity Type (AC/DC)” and “EMU Length”.
- c. In the definition for “Cost Reconciliation”, we have amended it so that it recognises that this provision is now also in the Freight Schedule 7.
- d. For consistency, in the definition for “Journey Look-up Tables” in paragraph 1.2, the references to passenger or freight “operators” have been replaced with freight or passenger “journeys”.
- e. In the definition for “Non-Journey Look-up Table” in paragraph 1.2, we have corrected the reference to the just the one table (2.1) in appendix 1, as both passenger and freight use the same non-journey look-up table.
- f. We have removed the definition for “Train Service Group”, as the freight journey look-up table will now use Train Service Code. Similarly, we have amended the definition for “Train Service Code” so that it applies for both freight and passenger journeys.
- g. Paragraph 2.7 sets out that these rules only apply to those vehicles opted-in which are set out in the appendix to schedule 7 for both passenger and freight, the wording here has been made clearer.
- h. In paragraphs 3 and 4, the drafting has been amended so that the infill arrangements for freight and loco-hauled passenger journeys are incorporated into the existing drafting for passenger journeys.
- i. In paragraph 9.10, we have deleted the word “Operator” after Network Rail.
- j. Appendix 1: Look-up tables, the column headings have been corrected:
 - i. in line with the defined terms;
 - ii. to reflect that freight journeys will be infilled based on Train Service Code; and
 - iii. in the freight and locomotive-hauled passenger journeys look-up table, “Specified Equipment” has been replaced with locomotive class.

2. *Freight Schedule 7*



- a. There were a number of references to 'Parts' of Schedule 7 that were removed (the Freight Schedule 7 does not have 'Parts').
- b. The reference to "Relevant Year" has been removed as the model Freight TAA uses the term "Financial Year".
- c. The definition for "Network Rail Distribution System Loss Factor" in paragraph 1 has been amended to clarify that Network Rail purchases traction electricity.
- d. For clarification, in paragraph 2.4.1.2, the modelled charge formula now clearly shows that it is to be summed across train category, and relevant year (this has also been corrected in paragraph 2.4.2.1 where the modelled charge formula is set out again for the volume wash-up).
- e. In paragraphs 2.4.1.3, 2.4.1.4 the price term now refers correctly to (new) paragraph 2.4.11A, which sets out provisions for Network Rail to calculate EC4T charges based on the actual costs of traction electricity.
- f. In paragraph 2.4.2, various references to paragraphs have been corrected.
- g. New paragraph 2.4.11A has been inserted which sets out the provisions for Network Rail to calculate EC4T charges based on the actual costs of traction electricity.
- h. The current paragraph 2.4.2.11 in the model freight contract titled "Traction electricity procurement arrangements" has been removed and replaced with the equivalent drafting from the model passenger schedule 7 "Strategy for the procurement of traction electricity" which sets out the provisions to agree a pricing strategy.



Appendix B – Responses to issues raised in December 2011 consultation

Following the consultation in December 2011 on the Proposal for changes to the EC4T Metering Rules, we received four responses; these were from DB Schenker, Freightliner, ORR and Virgin Trains. Overall, the responses were broadly supportive.

1. *General observations*

DB Schenker, Freightliner and ORR expressed their support for freight operators to be charged based on actual pricing arrangements (similar to those used by passenger operators) where they opt-in to OTM. In particular, DB Schenker considered it crucial that freight operators move to these arrangements to increase accuracy of EC4T bills, which may also further encourage freight operators to opt-in for OTM.

DB Schenker and Freightliner agreed with the proposed approach to make assumptions as a default to non-required consist data. Both requested some clarifications around this, which are discussed below.

DB Schenker said that for operators with relatively small fleets of electric trains that operate on many different routes with both AC and DC supply (such as DB Schenker), the benefits of opting-in for OTM may be less clear cut. This is because of the high costs of meter fitment, ongoing costs of maintenance of the equipment and the complexity and cost of managing and transmitting the data generated.

2. *Specific concerns and Network Rail's responses*

Consultees had some specific concerns and requested clarification on some issues. A summary of these and our responses to each (in no particular order) are set out below.

- a) Virgin Trains advised that there is an anomaly within the Schedule 7 drafting that is inconsistent with the current model clause drafting, and that the recent modifications approved by ORR that relate to ADDR rules need to be considered.

We agree that this anomaly exists; this is a drafting error in Schedule 7 of the model passenger TAA (amended for OTM). The London Midland 23rd supplemental agreement can be used as an example of a TAA modification to introduce OTM. We are aware that we must ensure that subsequent changes are not lost. These points should be corrected when amending the passenger Schedule 7 for introduction to OTM going forward. This query is not related to these proposed changes to the EC4T Metering Rules or the Freight Schedule 7.

- b) ORR highlighted some drafting issues in the proposed changes to the EC4T Metering Rules and Freight Schedule 7. It suggested that we check cross-references are correct and that the changes fit coherently with the original text.

The EC4T Metering Rules and Freight Schedule 7 have since been subject to external legal review. The modifications are summarised in Appendix A. We do not consider any of these amendments to be substantial.



- c) DB Schenker considered that further accuracy could be attained through the use of average infill values by Train Service Code, rather than Train Service Group. It also considered that separate values could be specified within each service code for loaded, empty and light engine movements.

We agree that further accuracy for infilling could be achieved through the use of average values by Train Service Code. The reason for proposing infill by Train Service Group was to be consistent with the current modelled consumption rates which, for freight, are set at Train Service Group level. Modelled freight charges will continue to be charged at a Train Service Group level, which means that processing in a mixed environment may be challenging.

We have analysed options to try and address these points. Our assessment shows that it is possible to do this, but this billing functionality will not be ready for implementation in April 2012. However, we are confident that it will be functional by the next opt-in date which is 1 April 2013. We consider that this is reasonable, and poses little/no risk since no freight operators have opted-in for April 2012.

We do not consider separating values for loaded, empty and light engine movements within each Service Code would necessarily increase accuracy, since the proposed 'Consist Tonnage' approach alleviates some of the inaccuracy associated with infill data.

- d) DB Schenker stated the proposals ought to reflect the possibility of electrically-hauled freight services operating under unregulated track access contracts ('network services') and the billing diversity of services moving or operating 'off-network'.

The current situation reflects that consumption off Network Rail infrastructure or on a non-billable journey is being recorded but not charged as is the case with non-metered journeys. The new facilities for 'International' operation will recognise that the meter readings for these situations do not relate to Network Rail supplied electricity, and therefore these meter readings would not be included in the Network Rail invoice.

- e) Freightliner suggested that the list of assumptions on consist may not be exhaustive, and proposed that if the 'real world' throws up other scenarios, that these are dealt with openly; transparently; without prejudice; and are included within the formal reopening/modification clauses.

We strongly agree with this, and are committed to communicating with operators about the assumptions we make. We would like to remind colleagues that operators should inform us directly, where possible, of any changes to their train consists.

- f) DB Schenker is broadly content with the proposed assumption that "all locomotives in a freight 'consist' are assumed to be driving". However, it believes that there are a number of key exceptions. For example, where such consists contain more than one Class 92 locomotive or where the consist is a light engine movement as DB Schenker believes that in both of these scenarios there will only be one locomotive drawing power.



There is a manual option for indicating that a locomotive is 'dead-in-tow' and assumed not to be drawing current, therefore this anomaly can be corrected. Any option to automate this process for an individual class of locomotive would need further billing system development.

- g) Post consultation note⁷: DB Schenker queried whether it would be possible for Network Rail to consider amending the rules to enable the dual voltage (AC/DC) Class 92 locomotives to be billed on metered usage on AC and modelled usage on DC.

The proposed approach would represent a complex scenario, since we do not have the equipment allowing us to recognise when the vehicle is drawing DC and when it is drawing no electricity at all (both are reflected as 'zero meter reading'). Both AC and DC electric supply readings are required for us to identify the actual missing data to be infilled.

- h) Freightliner recognised that the use of kWh per tonne, per five-minute interval, as the metric for infill data would work well for gaps in metered data, but it was uncertain as to how whole journey data gaps would be handled.

The infill kWh per tonne values will be calculated per Train Service Code (Journey superset) and applied as five-minute average values. This means that any infill value is an average based on historic actual consumption.

- i) Freightliner has a concern stemming from the accommodation of the partially metered operators and the complexity this has imported into the volume and cost wash-up calculations. It is concerned that due to the possible confidentiality of individual operator data that transparency of these calculations maybe lost and this may result in an extension to the current 90 day wait after the end of a financial year for final EC4T costs to be known.

Paragraph 10 of the EC4T Metering Rules requires Network Rail to publish the total net metered consumption and the net infilled metered consumption per period⁸. All details relating to the volume wash-up are included on the wash-up statement issued after it is complete.

- j) In terms of penalties above set allowances for infill data and the proposed recycling of these back to operators⁹, Freightliner suggests that the proposed incentive charge thresholds are set for a defined period of time and then revisited following a critical mass of data / participation.

⁷ These comments were raised at the January 2012 Metering Steering Group meeting, and in a subsequent email from Nigel Oatway to Ekta Sareen dated 17 January 2012.

⁸ This data is published here: <http://www.networkrail.co.uk/asp/12873.aspx>.

⁹ Currently, the proportional amount of OTM incentive charges payable to a train operator is: the total traction electricity charge paid by that operator (following the cost wash-up) divided by the sum of all the EC4T charges paid by all operators (following the cost wash-up) multiplied by the total OTM incentive charges received.



We agree, as with all the provisions in the EC4T Metering Rules, they may need to be amended as more operators opt-in to OTM, and we increase our understanding in this area.

We would like to remind colleagues, that any metered train operator, Network Rail or ORR is able to propose changes to these arrangements at any time in accordance with paragraph 11 of the EC4T Metering Rules. Non-metered operators may be able to enact these provisions via ORR.

- k) Freightliner found it unclear as to whether those operators which pay the incentive charge are included in the 'recycling' of the incentive charges process and the degree of disaggregation that will be applied, e.g. by geographic area (ESTA).

All operators are included in the 'recycling' of incentive charges process (that is metered and un-metered operators). The process is carried out after the cost wash-up, and therefore is paid based on each operator's total EC4T bill (across all ESTAs).

- l) Freightliner requested a worked example of a representative year to follow the multiple inputs of consumption, conversion to charges and final reconciliations of consumption and cost. Freightliner would be happy to engage in developing an example such that it allows operators to understand the moving parts.

We understand this query to be in relation to the new wash-up arrangements introduced last year, which accommodate the arrangements where metered consumption is excluded from the volume wash-up except where more than 90% of the consumption in an ESTA is metered. We are happy to work with freightliner to develop this worked example.



Appendix C – Voting provisions

Voting on a Proposed Metering Rules Change

11.9 Network Rail shall promptly arrange for a vote to take place on whether the Proposed Metering Rules Change is accepted or not, as follows:

- (A) the vote shall be open to the Metered Train Operators and Network Rail, who shall each cast one vote either for or against each Proposed Metering Rules Change, as they consider appropriate;
- (B) Network Rail shall specify a period for casting a vote, which shall be open for voting for not less than 7 days; and
- (C) the vote shall be conducted by e-mail.

11.10 A Proposed Metering Rules Change shall have been endorsed only if a majority of the votes cast are in favour of the relevant Proposed Metering Rules Change, provided that the failure of a party timeously to vote or a party intimating its abstention shall be treated as abstentions and not be included in the counting of votes to ascertain whether the Proposed Metering Rules Change has been endorsed or rejected.

11.11 If the vote taken in accordance with paragraph 11.9 above endorses the Proposed Metering Rules Change, Network Rail shall as soon as reasonably practicable submit the proposal to ORR in accordance with paragraph 11.13 below.

11.12 If the vote taken in accordance with paragraph 11.9 above rejects the Proposed Metering Rules Change, Network Rail shall as soon as reasonably practicable notify the Proposing Party of that decision.



Documents attached:

- EC4T Metering Rules (clean)
- Freight Schedule 7 (clean)
- EC4T Metering Rules (compare against consultation draft)
- Freight Schedule 7 (compare against consultation draft)

