



OFFICE *of the*
RAIL REGULATOR

**THE PERIODIC REVIEW OF RAILTRACK'S
ACCESS CHARGES:**

**CAPACITY CHARGES
A TECHNICAL CONSULTATION DOCUMENT**

Contents

1. Introduction	1
2. Review of Railtrack's methodology	5
3. Applying the capacity charge.....	12
Annex 1: Consultation questions	17
Annex 2: Illustrative capacity charges.....	19

1. Introduction

- 1.1 The Regulator has proposed that an additional variable track access charge be introduced as part of the periodic review. This new charge would be applied to all services to recover the expected increase in “congestion costs” imposed on Railtrack by additional traffic. These costs arise because additional services reduce Railtrack’s ability to recover from an incident and also increase the probability of delays, both of which increase Railtrack’s expected costs. They therefore increase Railtrack’s expected payments under the operational performance regime (in Schedule 8 of franchised passenger track access agreements).
- 1.2 At present, for the initial entitlement of rights, Railtrack recovers these costs through the fixed charge levied from franchised passenger operators. Where train operators negotiate supplemental track access contracts for additional rights, the negotiated charges include an element for the expected increase in congestion costs arising from new services operating under these rights. The arrangements proposed in this document would introduce a tariff in place of these negotiated charges and the elements of fixed charges recovering congestion costs.
- 1.3 Railtrack proposed that this existing framework be replaced with a pre-determined tariff. This would provide a separately identified charge for the existing entitlement of rights and create a tariff in place of the presently negotiated charge for new rights. It also proposed a methodology by which the tariff could be set, using a statistical relationship between capacity utilisation and expected delay. Chapter 4 of the April 2000 periodic review document set out the Regulator’s present view that such a tariff should be introduced. The advantages of this approach were detailed in that document. In summary, such a charge would increase certainty and reduce the transaction costs of introducing additional services. Chapter 9 of the July periodic review document sets out the Regulator’s conclusions on these issues. The implementation of such a tariff raises important practical issues and the Regulator commissioned Symonds to advise on these matters. This consultation document should be read in conjunction with their report, which is available on the ORR website or from the ORR library.
- 1.4 The Regulator is also presently consulting separately on the framework for the approval of freight access charges, including the application of such a pre-determined tariff to freight services. The recovery of congestion costs arising from freight services is not therefore

covered in this document. Freight operators are, however, invited to comment on the implications of the proposed approach were it to be adopted for freight charges.

- 1.5 The Regulator has also recently published KPMG's report concerning the recalibration of the Schedule 8 operational performance regime. The recalibration has included an increase in Railtrack's payment rates. The congestion costs on which the proposed capacity charges are based will also increase as a result of the performance regime payment rates increasing.
- 1.6 Consultees are invited to comment on the principles raised in this paper in general and also on the specific consultation questions (listed together in Annex 1). Responses to this consultation should be sent to:

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to arrive no later than 29 August 2000. Respondents should indicate clearly if they wish their responses to remain confidential to ORR. Otherwise it is expected that they will be published in the ORR library and on its website and they may be quoted from by the Regulator. Where a response is made in confidence, it should be accompanied by a statement which can be published, placed in the ORR library and on its website and quoted from by the Regulator, summarising the submission but excluding the confidential information. The Regulator may also publish the names of respondents in future documents or on the ORR's website, unless a consultee clearly indicates that he wishes his name to be withheld.

- 1.7 The remainder of this document addresses the following issues:
- the conclusions of Symond's review of Railtrack's methodology for calculating congestion costs;
 - the Regulator's proposals for developing capacity charges, including his views on the simplification of Railtrack's proposal and the appropriate dimensions for the charge;

The Periodic review of Railtrack's access charges: capacity charges

- the application of the proposed charge and the coverage of the pre-determined tariff;
and
- the proposals for the practical implementation of the capacity charge, which include a corresponding reduction in the fixed charge.

2. *Review of Railtrack's methodology*

Introduction

- 2.1 Symonds were asked to review the technical accuracy of the approach which Railtrack has taken to estimating the costs and to provide recommendations to the Regulator on the derivation of appropriate charges to recover these costs. Their report concludes that Railtrack's cost estimation methodology is essentially valid and statistically robust. Symonds have concluded that a number of significant simplifications can be made to the pre-determined tariffs derived from this cost estimation methodology without undermining the broad cost reflectiveness of the tariff.
- 2.2 The Symonds report has also considered a number of other practical issues concerning the implementation of the methodology and the levying of capacity charges. These include:
- whether the charge should be levied on timetabled or actual services;
 - how to ensure that the charge provides the correct incentives for Railtrack;
 - the application of the charge to freight services; and
 - whether the charge should be recalculated during the next control period, or alternatively whether the tariffs should be fixed for the duration of the control period.
- 2.3 Consultees' views are invited on the conclusions of the Symonds report concerning the approach to calculating the capacity charge and their recommendations to the Regulator.
- 2.4 The remainder of this chapter:
- summarises the proposed approach for estimating congestion costs;
 - describes the variables on which the Regulator expects the proposed charge to be levied (that is location, timeband and flex); and
 - sets out the Regulator's simplifications of the Railtrack approach, including proposals for reducing the number of geographic sections for which a tariff is calculated, the banding of prices and the use of a *de minimis* threshold.

Estimation of congestion costs

- 2.5 As explained in the April 2000 periodic review document, Railtrack's approach to estimating congestion costs is based on statistical analysis of the relationship between capacity utilisation and delay. Given this relationship, the payment rates in Schedule 8 of the franchised passenger track access agreements are used to calculate the expected impact on Railtrack's costs. This approach was developed for Railtrack by AEA Technology.
- 2.6 The capacity utilisation variable used by Railtrack is calculated for each track section for a particular time period for the prevailing timetable in relation to the total potential utilisation which would be possible, given the minimum allowable headways (as derived from the Rules of the Plan). The concept of delay which is used in this context is defined as "congestion related reactionary delay" (CRRD), which refers to the knock-on delay resulting from incidents and which is affected by network use. The detailed definitions are set out in Symonds' report.
- 2.7 Symonds considered the issue of the functional form of the statistical relationship which has been derived by AEA Technology. They reviewed the alternatives considered by AEA Technology and the statistical testing of those alternatives. They concluded that the relationship used is broadly credible and statistically significant. As observed in the April 2000 periodic review document, the exponential function which has been used does imply that there would be some delays even if no trains were being run. However, this is justified by the fact that, over the ranges of capacity utilisation which actually occur, the exponential relationship provides the best statistical fit to the data. This anomaly will also be removed in practice by the use of a *de minimis* cut off for the capacity charge (which is discussed further below). Setting the charge to zero for all charges below a certain level will ensure that, where capacity utilisation is at a low level, the implied charge is zero.
- 2.8 Symonds also considered the delay cost parameters used in the model. They are satisfied with the rationale given for the inclusion of the various parameters (that is, location, timeband, flex and relative speed of service) in the cost estimation methodology developed by AEA Technology for Railtrack. However, they also concluded that there is significant scope for simplifying the tariff.
- 2.9 Consultees are invited to comment on the method of cost estimation developed by AEA technology and reviewed for the Regulator by Symonds. In particular consultees are asked whether they agree that the methodology provides workable estimates of costs on which to base a tariff.

Proposals for developing capacity charges

2.10 The practical issues involved in implementing the capacity charge concern the translation of the cost estimates into tariffs. Significant concerns were expressed at the seminar on structure of charges which the Regulator held on 28 February 2000 concerning the complexity of Railtrack's charging proposals in this area. The April 2000 periodic review document confirmed the Regulator's view that this degree of complexity could and should be reduced. The Regulator stated that the tariff structure might potentially be simplified in the following ways:

- reducing the number of individual geographical route sections for which a tariff was calculated;
- considering whether the number of timebands should be reduced;
- imposing a *de minimis* cut off; and
- banding prices, so that where the estimated costs are similar between different route sections, the tariff is set to the same amount.

2.11 Consultees' responses to the April 2000 periodic review document generally supported these proposals. There was considerable support amongst operators for simplifying the tariff. Railtrack acknowledged that some simplification was possible, although it was concerned to ensure that the tariff remained appropriately cost reflective. Symonds' report confirms that most of the Regulator's proposals are indeed possible and desirable. They point out that 95% of the total revenue potentially realised by the tariff arises from just 25% of the individual calculation "cells" (combination of the geographical route section, timeband and direction of travel on which the statistical estimation is based). They also identify considerable scope for reducing the number of separate route sections for which different charges are calculated. In this regard, Symonds support the basis proposed by Railtrack for consolidating the number of geographic sections. This involves defining the cost calculation cells in terms of sections of track between points at which trains can enter or leave that part of the network. Across the network this approach would approximately halve the number of cost cells.

2.12 Symonds also considered whether there was scope for reducing the number of timebands on which the tariff is levied. They concluded that, while the number of timebands may be reduced for certain geographical areas, 13 different periods across the week are required for the tariff to be appropriately cost reflective in significant areas of the network. The Regulator believes

that it is more appropriate for a consistent number of timebands across the week to be used for the whole network and that it would increase rather than decrease complexity to have different arrangements in this respect for different locations. The Regulator's current view is therefore that the number of timebands in the tariff should remain at 13.

- 2.13 Flex can be defined as the amount of time variation for a particular timetabled path which a TOC (train operating company) is willing to offer to Railtrack. Track access agreements set out the access rights to which an operator is entitled. These are then exercised in the timetabling process set out in the Track Access Conditions. It is up to the operator to say if it is prepared to provide Railtrack any flexibility as to the precise time of the slot. In addition Railtrack has a flexing right defined in the Track Access Conditions in order to enable it to accommodate different bids.
- 2.14 Railtrack has said the amount of flexibility given by the operator is an important determinant of the congestion costs which it incurs, as greater timetabling flexibility provides it with more opportunity for optimising the timetable and reducing their expected payments under the performance regime. It is Symonds' view that this factor is a material driver of the underlying costs and therefore should be reflected in a charging structure. The Regulator proposes to create an overlay to the basic tariffs calculated for individual locations and timebands. In practice this will mean that the base tariff will be calculated assuming that the TOC only offers minimal flexibility in its bid. If an operator is prepared to offer more flexibility, standard discounts would apply. It is also the Regulator's present view that if Railtrack, using its flexing right, flexes an operator into a higher capacity charge band, the lower rate would still be levied.
- 2.15 Symonds agreed with AEA Technology that, except in extreme cases, the speed of the service relative to the average running speed over a particular section of track would not affect the expected performance regime costs to Railtrack. In such extreme cases, Railtrack has argued that this means that, where services fall significantly outside the normal range of speeds for a particular geographic section of a route, the capacity charge should be calculated on a bespoke basis rather than on the basis of the pre-determined tariff. Railtrack has proposed that any services taking more than twice the average point-to-point time of all current timetabled services (i.e. much slower than average) should fall outside the tariff structure. A corresponding approach could also be taken for services travelling significantly faster, such as any service taking less than half the average point-to-point time of all current timetabled services. The Regulator accepts that services significantly outside the existing performance envelope might lead to different expected congestion costs. However, the circumstances in which bespoke calculations of the relevant charges are used should be

limited and strictly contractually defined. The Regulator would expect such bespoke charges to be calculated using a consistent methodology (with appropriate adjustments) to that used to calculate the capacity charges. Otherwise the benefits of moving to a pre-determined tariff could be undermined.

2.16 Consultees' views are invited on the proposed basis for the charge. In particular, views are invited on:

- the arrangements for taking flex into account in the charge and the appropriate definition of flex, including how minimal flexibility should be defined (both in the context of individual slots and in interval service patterns) and the appropriate level of the discounts which should apply; and
- the proposals for bespoke charges where the speed of the proposed service is significantly below the existing lowest average speed on the route or above the existing fastest average speed on the route, and whether this proposal is likely to apply to a significant number of possible new services.

Further simplification of the tariff structure

2.17 The Regulator also proposed in the April 2000 document that the capacity charges might be banded such that the total number of different tariffs was reduced (although the number of "cells" in the tariff matrix would not be reduced as a result of this change). The Regulator believes that this approach will simplify the presentation of the tariff and make it easier for operators to understand. Symonds confirmed that banding would be a helpful simplification.

2.18 The Regulator is therefore proposing that the capacity charges are banded to provide greater transparency and ease of interpretation of the charge for operators and funders. Where the costs for different route sections at a particular time are sufficiently close to each other it is proposed that the cost estimates are averaged in order to provide a single charge which applies to all of those sections. This raises the question of the appropriate number of tariff bands. One possibility would be for tariffs to increase in roughly 10% increments. If the lowest tariff were 10 pence per train mile, then the next tariff would be 11 pence per train mile, followed by 13 pence, 15 pence and so on. Alternatively, bands could simply be set at 5 pence or 10 pence per train mile bands.

2.19 It has also been proposed that a *de minimis* level be imposed on the tariffs, such that where the cost estimates are below a certain level for a particular route section and timeband, the

tariff is set to zero. Railtrack has argued that the *de minimis* cut off should only be applied where the cost estimates for a certain route section are below the threshold in all timebands. The Regulator does not presently believe this is appropriate as it will lead to some tariffs being charged below the threshold. Railtrack is reluctant to adopt the simpler approach because it feels that it would accentuate the price differential between, say, peak and off peak services and thereby create inappropriate incentives. However, the price differentials between services which are close to the threshold will be relatively small. The Regulator's current view is therefore that the *de minimis* threshold should be applied to individual charges which fall below a certain level. The imposition of such a threshold will also ensure that there is no implied tariff where capacity utilisation is zero (which is a problem with the functional form of the statistical relationship used by Railtrack as discussed above).

- 2.20 Table 5.1 of the Symonds report shows the percentage of total revenue realised by a number of different possible thresholds. There is a balance to be struck between ensuring that the charge recovers an appropriate percentage of the relevant congestion costs and the greatest feasible reduction in the number of sections to which a charge applies in order to reduce complexity. The Regulator's present view is that the *de minimis* threshold should be set between 10 pence and 30 pence per train mile. The Regulator will need to consider consultees views on basing the charge on the marginal revenue effects of delay alone as described in the next chapter, before coming to a final view on the appropriate level for this threshold. The Regulator also notes that Railtrack will need to recover through the fixed charge the expected costs imposed by those services which run over sections where the tariff is set to zero by virtue of being below this threshold.

Conclusions

- 2.21 Consultees' views are invited on the proposals to simplify the tariff structure for the capacity charge by introducing the banding of charges and imposing a *de minimis* cut off. In particular, views are invited on the appropriate width of the bands and the appropriate level for the *de minimis* cut off.

3. *Applying the capacity charge*

Introduction

3.1 Implementing a capacity charge raises a number of practical issues which are considered in this chapter. The issues covered include the recalculation of the charge, the question of whether the charge is levied on timetabled or actual services and the arrangements for the implementation of the capacity charge.

Bespoke negotiations

3.2 In the April 2000 periodic review document the Regulator set out his view that the capacity charge should be applied to all franchised passenger services and that Railtrack should be bound to charge the pre-determined tariff for additional paths it sells on its network. The Regulator also raised the question of whether operators should also be bound by the charge or whether they should be able to negotiate different charges where this is mutually beneficial. A number of respondents stated that they believed this flexibility would be useful. Railtrack was concerned that it would raise the opportunity for “cherry picking” by operators. The Regulator’s present view is that there would be no opportunity for such behaviour as long as Railtrack is not forced to accept a negotiation. He is therefore considering whether the pre-determined tariff should act as a ceiling for this charge. In this case:

- if Railtrack and operators can negotiate a mutually beneficial alternative, the Regulator would need to consider this as part of his consideration of whether to approve the supplemental access agreement under the Railways Act 1993; and
- if they failed to agree, the Regulator would expect the operator to present a clear economic case for departing from the tariff.

3.3 Another issue raised in the April 2000 periodic review document was the extent to which the charge should be recalculated during the control period. There are three main ways which the costs Railtrack incurs could change over the course of the control period:

- the utilisation of the existing network might change beyond what was anticipated when the charges were set (through unanticipated growth or decline in the number of services);

- the actual amount of capacity might change (through an enhancement to the network); and
- Railtrack may achieve greater efficiency improvements than those which were anticipated when the charges were set.

3.4 Railtrack has proposed that the charge is recalculated every year, but that only additional services pay the new charge, while the charge paid for other services is set at the level of the charge as it was when the service was introduced (or was set at the periodic review for all existing services). However, the Regulator's initial view was that the charge should not be recalculated where capacity utilisation on the existing network increases. Funders, operators and Railtrack require a degree of certainty concerning this charge and regular recalculation of the charge would not ensure this.

3.5 Enhancements to the network will typically reduce congestion costs. Given this, the Regulator proposes that the reduced costs to Railtrack should be taken into account in the cost of enhancement. These reduced costs should be deducted from the mean qualified risk assessment (QRA) cost estimate. The benefit of the change in capacity will therefore accrue to the train operator purchasing the enhancement and operators will continue to pay the tariff. The tariff itself will only be recalculated where an enhancement is purchased by, or on behalf of, all the TOCs on a particular section of the network. For example, should the SSRA decide to assist in funding the enhancement of a particular part of the network, then the capacity charge could be reduced to reflect the resultant increase in capacity.

Levying the charge on timetabled or actual services

3.6 The proposed charge could be levied either on trains actually run or services timetabled. If a service is timetabled, but not actually run, Railtrack is unable to optimise its use of the available white space on the day of operation. Expected congestion costs may be higher than if the service had not been timetabled at all. However, as the Regulator stated in the April 2000 periodic review document, at an operational level, the day-to-day reaction to incidents depends on what is actually running on any particular day. The Regulator's present view is therefore that the charge should reflect actual services which run.

3.7 Railtrack has argued that the charge is calculated on, and flex is associated with, timetabled services. As a practical matter therefore, the Regulator proposes that the charge is levied on timetabled services, but that an *ex post* reduction is made to the overall capacity charge for each operator to reflect those services which did not actually run. For passenger services,

the Regulator expects this adjustment to be small as there is not a significant difference between services timetabled and services actually run.

Calibration of the capacity charge

- 3.8 The level of the capacity charge is driven by the payments which Railtrack has to make under the performance regime. The Regulator is concerned to ensure that the charge does not lessen the incentives on Railtrack to improve the use of the network, reduce delays attributable to it and improve their management of incidents. As this is a new charge and will only be introduced part way through the control period (therefore the impact on operators can only be estimated) the Regulator considers that it is particularly important that the proposed charge takes account of potential efficiency improvements. The charge will therefore be set on the basis that Railtrack achieves the assumed performance improvement in the Regulator's final conclusions on revenue requirements, and improves its management of CRRD delay by the same amount.
- 3.9 The Regulator is considering calibrating the capacity charge so that it equates to the expected cost, under the performance regime, of the historic levels of CRRD. This is in the expectation that the capacity charge income will offset exactly the CRRD related performance regime payments. Any additional train miles on the network will lead to an increase in Railtrack's income from the capacity charge to offset the payments it must make under the performance regime.

Implementation issues

- 3.10 The Regulator has already stated his intention to recalibrate the payment rates in Schedule 8 of the franchised passenger track access agreements and has published a report by KPMG setting out the appropriate new levels for these rates. These rates include an element related to the marginal revenue effect and a separate element related to the societal effect of delay.
- 3.11 The Regulator is proposing that the capacity charge should reflect only the marginal revenue effects of delay, which is approximately half of the total congestion cost. In order to ensure that the incentives on Railtrack are appropriately maintained, the expected societal amount of congestion costs over the control period (the remaining portion of congestion costs) will be reflected in the fixed charge. To achieve this objective the Regulator proposes to set the capacity charge using halve the proposed performance regime payments. The Regulator will then expect to take into account the difference between assumed capacity charges and the

actual charge paid by operators in establishing the Regulatory Asset Base at the next periodic review.

- 3.12 The Regulator indicated previously that he believed the capacity charge should not be introduced before the summer 2002 timetable for practical reasons. As stated in the April 2000 periodic review document, the Regulator asked Railtrack to provide some analysis on the effect of changing variable charges and he has been discussing this work with the Association of Train Operating Companies and shadow Strategic Rail Authority. The Regulator therefore still believes that the capacity charge should not be levied on any services before the summer 2002 timetable.
- 3.13 On introduction of the charge, the Regulator expects that there will be a corresponding decrease in the fixed charge. This decrease will be equal to the expected revenue which will be raised from the tariff for all those services to which it applies. The introduction of the capacity charge will not therefore change Railtrack's expected revenue.
- 3.14 The Regulator has asked Railtrack to provide a set of draft capacity charges for a sample of routes, consistent with the proposals in this document, which he expects to provide to operators by 14 August 2000. A set of tariffs covering the whole network will be calculated following further work presently being undertaken by Railtrack. The Regulator will consult on these tariffs and expects to publish a price list for the capacity charge, which will be available on the public register. He will also expect to approve access agreements which refer to this published price list.

Conclusions

- 3.15 Consultees' views are invited on the coverage of the proposed capacity charge in relation to franchised passenger services. Views are invited on the application of the charge to all services and the options for whether the tariffs should be recalculated during the next control period. Further, consultees are also invited to comment on the arrangements required for recalculating the tariffs when network capacity is enhanced and the proposals for levying the charge on services actually run.
- 3.16 Consultees are also invited to comment on the proposed arrangements for introducing the proposed capacity charge.

Annex 1: Consultation questions

1. Consultees' views are invited on the conclusions of the Symonds report concerning the approach to calculating the capacity charge and their recommendations to the Regulator.
2. Consultees are invited to comment on the method of cost estimation developed by AEA technology and reviewed for the Regulator by Symonds. In particular consultees are asked whether they agree that the methodology provides workable estimates of costs on which to base a tariff.
3. Consultees' views are invited on the proposed basis for the charge. In particular, views are invited on:
 - the arrangements for taking flex into account in the charge and the appropriate definition of flex, including how minimal flexibility should be defined (both in the context of individual slots and in interval service patterns) and the appropriate level of the discounts which should apply; and
 - the proposals for bespoke charges where the speed of the proposed service is significantly below the existing lowest average speed on the route or above the existing fastest average speed on the route, and whether this proposal is likely to apply to a significant number of possible new services.
4. Consultees' views are invited on the proposals to simplify the tariff structure for the capacity charge by introducing the banding of charges and imposing a *de minimis* cut off. In particular, views are invited on the appropriate width of the bands and the appropriate level for the *de minimis* cut off.
5. Consultees' views are invited on the coverage of the proposed capacity charge in relation to franchised passenger services. Views are invited on the application of the charge to all services and the options for whether the tariffs should be recalculated during the next control period. Further, consultees are also invited to comment on the arrangements required for recalculating the tariffs when network capacity is enhanced and the proposals for levying the charge on services actually run.

6. Consultees are also invited to comment on the proposed arrangements for introducing the proposed capacity charge.

Annex 2: Illustrative capacity charges

1. This appendix contains illustrative tariffs for sample routes on Railtrack's network. Railtrack provided these to the Regulator. Symonds then applied their proposed banding and *de minimis* threshold to these sample charges, as discussed in their report which the Regulator has published in conjunction with this document.
2. Table 1 shows the level of the threshold and the charging bands which Symonds have proposed.

Table 1: Proposed charging bands

Proposed Charge Band	Costs	Proposed Charge (pence per train mile)
<i>de minimis</i>	<10 pence	Zero
A	10p-20p	15p
B	21p-30p	25p
C	31p-40p	35p
D	41p-50p	45p
E	51p-60p	55p
F	61p-70p	65p
G	71p-80p	75p
H	81p-90p	85p
I	91p-£1	95p
	>£1	Estimated cost

Source: Symonds

3. Tables 2 and 3 provide indicative tariffs for three separate routes in one direction. Railtrack is currently undertaking work to upgrade the systems on which the data for these calculations is processed. While this may result in some change to the estimates, Railtrack has confirmed to the Regulator that these changes will not be material for the routes selected. Furthermore, there may be adjustments resulting from the recalibration of the performance regimes. The Regulator will expect these effects not to have a material effect on the charge levied on the operator.
4. The most significant change arising from the recalibration of the performance regimes is the doubling of the payment rates to reflect the increased social value of delay. The capacity charges shown here are estimated using the existing performance regime rates. As part of the periodic review the Regulator has recalibrated the performance regime. The result is an

approximate doubling of the performance regime payment rates. However, since the Regulator intends to use only the marginal revenue effect in setting the capacity charges, he would not expect the charges to be materially different from those set out here. Railtrack will then recover the societal element of the congestion cost through the fixed charge.

Table 2: Great Western Main Line (GWML Main): Paddington to Plymouth

		Cost per train mile per timeband No Flex			Cost per train mile per timeband +/- 15 mins flex		
FROM	TO	WEEKDAY			WEEKDAY		
		06:30 - 09:30	09:30- 16:30	16:30- 19:30	06:30- 09:30	09:30- 16:30	16:30- 19:30
London							
Paddington	Ealing Broadway	£1.20	£1.42	£5.05	£1.03	£1.22	£4.34
Ealing Broadway	Airport Jn	E	G	£3.97	D	F	£3.41
Airport Jn	Slough	E	H	£5.12	D	G	£4.40
Slough	Maidenhead	F	F	£1.99	E	E	£1.71
Maidenhead	Twyford	A	A	E	A	A	D
Twyford	Reading	£1.58	£1.59	£6.51	£1.35	£1.37	£5.60
Reading	Southcote Jn	£2.10	£3.23	£3.66	£1.80	£2.77	£3.15
Southcote Jn	Bedwyn	zero	C	C	zero	B	C
Bedwyn	Westbury	zero	A	A	zero	A	A
Westbury	Cogload Jn	zero	zero	B	zero	zero	B
Cogload Jn	Taunton	A	D	E	A	D	D
Taunton	Exeter St Davids	zero	zero	zero	zero	zero	zero
Exeter St Davids	Plymouth	zero	A	A	zero	A	A
Charge per train Paddington to Reading		£22.31	£26.06	£116.68	£18.94	£22.66	£100.14

Source: Railtrack and Symonds calculations

Table 3: West Anglia / ECML Branches / ECML Main: Cambridge to Kings Cross

		Cost per train mile per timeband No Flex			Cost per train mile per timeband +/- 15 mins flex		
FROM	TO	WEEKDAY			WEEKDAY		
		06:30 - 09:30	09:30- 16:30	16:30- 19:30	06:30- 09:30	09:30- 16:30	16:30- 19:30
Cambridge	Shepreth Branch Jn	H	A	A	G	zero	zero
Shepreth Branch Jn	Hitchin	£1.02	zero	A	H	zero	zero
Hitchin	Welwyn Garden City	£1.44	A	A	£1.23	A	A
Welwyn Garden City	Alexandra Palace	D	zero	zero	D	zero	zero
Alexandra Palace	Finsbury Park	£4.54	C	A	£3.90	C	A
Finsbury Park	London Kings Cross	£1.81	C	C	£1.55	B	B
Charge per train Cambridge to Kings Cross		£64.18	£3.83	£6.72	£55.45	£3.19	£2.69

Source: Railtrack and Symonds calculations