



John Larkinson
Director, Railway Markets and Economics
Office of Rail and Road
One Kemble Street
London, WC2B 4AN

13 April 2016

Dear John,

Applications for access to the East Coast Main Line (ECML)

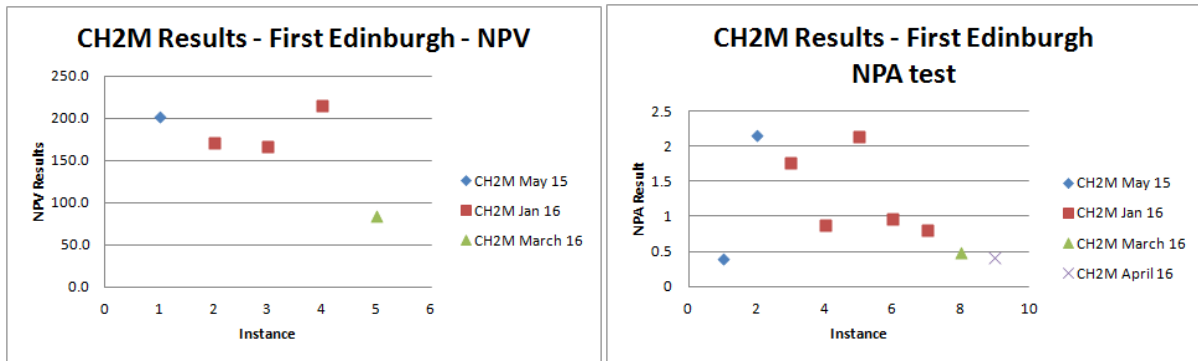
Thank you for your letter dated 24 March 2016 updating stakeholders following the 04 March meeting.

ORR must recognise that the current open access applications are game-changers: they target core existing markets and do little or nothing for new ones. For example, CH2M figures clearly show that only 3% of First's revenue would come from the new flow (Morpeth <> London) and even this market is served by VTEC today with direct services to London. Morpeth will also have significantly more regional services as part of the new TransPennine Express committed service upgrades.

The level of absolute abstraction in all three open access applications is a bigger quantum of abstraction than ever seen before in one application. The Leigh Fisher report (Table 8) estimates that all of the current open access operators combined abstract around £41m from VTEC. Any one of the applications would, if implemented, at least double this, and considerably more in some cases. Compared to open access on WCML and the relative size of the franchise, the impact of additional open access at this stage would be out of all proportion.

It is more essential than ever that ORR proceeds only on the basis of reliable evidence and sound logic. We continue to have concerns on both counts. Neither the First Group Edinburgh or Alliance Yorkshire / Cleethorpes applications would pass the NPA test based on the evaluation methodology previously used by ORR. It is only the assumption of competitive response (and fares modelling which we believe contains fundamental and material errors) and the change to using gravity models for new stations which allow these applications to apparently pass the test. Any decision in favour of any of these open access applications would represent a departure from precedent for ORR, would threaten investment on the East Coast Main Line and would significantly affect the future of franchising. ORR must be fully mindful of the risks and uncertainties around such a decision. The dependence on a single modelling approach which produces some clearly implausible results, while taking no account of other comparable modelling which indicates very different outcomes, would raise serious questions about the robustness of any decision.

CH2M's modelling remains unfit for purpose. CH2M's approach to modelling has produced a range of results that vary massively. For example, the graphs below show the NPV and NPA results for the First Group Edinburgh proposal. Given how incredibly sensitive these results are to simple modelling tweaks, all errors in the modelling must be fully resolved before the ORR Board can have any confidence that a safe decision can be made.



The general trend in NPA results has been downward and we are confident that once the remaining modelling errors are corrected the NPA would be significantly below the 0.3 threshold.

In the rest of this letter we deal with our key concerns in the following order:

1. Capacity
2. DfT ECML Business Case Concerns
3. Performance
4. Serious concerns regarding Option 16
5. Fares within the NPA process
6. Fares Modelling
7. The principle of incorporating a competitive response
8. Gravity model does not accurately model abstraction
9. SDG Report is largely being ignored
10. VTEC Middlesbrough services will add significant capacity
11. Transparency

1. Capacity

We note your current best view that there is “probably” capacity for up to an additional 0.5 paths/hour out of King’s Cross, based on a theoretical maximum of 18 TPH and that in some off peak hours this theoretical maximum is not used. Theoretical capacity is very different from actual train paths - the actual level of capacity will depend on train types, timetable pattern, journey time and performance requirements. However, we accept that it may be possible to run an additional train in some of these hours. It is also unclear whether additional electric traction could operate on the route south of Doncaster until completion of the PSU1 works (currently planned to be completed in December 2017).

We agree with your conclusion that one additional off-peak path per hour out of King’s Cross should be available from May 2021, assuming the infrastructure works at Werrington and Woodwalton are completed in line with the latest draft of the Enhancement Delivery Plan and that both schemes continue to be funded by DfT. However to achieve this extra path taking the total to 7.5 tph would require compromises to stopping patterns and/ or performance. VTEC’s franchise bid timetable which is a holistic package of services, addresses these compromises and has been developed to protect performance; necessary compromises are not included in the other applications. Their impact must be modelled for the applications to be assessed on a consistent basis.



Our understanding is that there is considerable uncertainty whether the freight loops at Northallerton would continue to be funded and therefore delivered in CP5. Failure to implement this scheme would limit extra capacity north of York.

We disagree with the ORR comment that as many as 2.5 London to Edinburgh trains could run without unduly impacting freight and local connectivity. It is unclear what assumptions have been made such as the existing levels of Cross Country long distance services, assumptions for Scotrail local services and what consideration, if any, has been given to TPE's franchise commitment to extend Newcastle services through to Edinburgh each hour.

To our mind, there are therefore still fundamental questions to be answered in respect of capacity on the route between Newcastle and Edinburgh.

2. DfT ECML Business case concerns

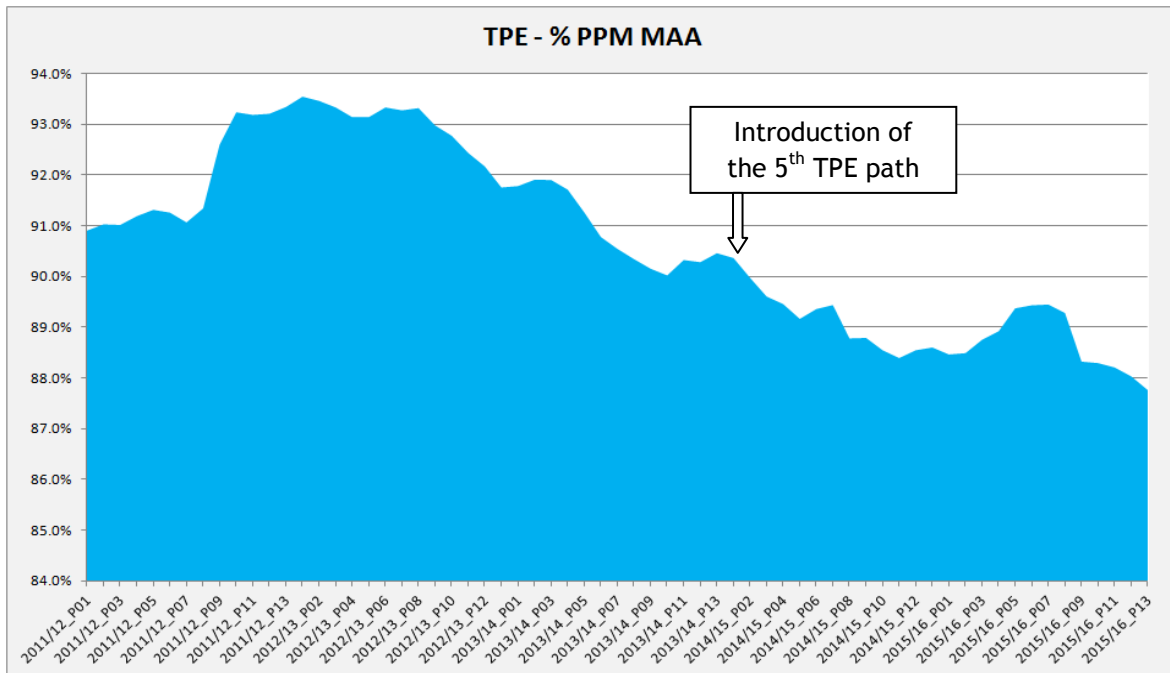
We are very concerned that the ORR could make a decision that could result in much needed investment in the ECML being withdrawn and infrastructure upgrades being cancelled. We strongly believe that ORR should share its decision with DfT on a confidential bilateral basis prior to announcement to ensure the business case for the investment in ECML is still positive.

3. Performance

There is considerable uncertainty as to what will happen to performance if ORR approved rights for the maximum 8 LDHS train paths per hour. Network Rail's best view was that VTEC's PPM MAA would reduce by 1.8-2%. This is a significant issue and all stakeholders agree that performance is very important for passengers, freight companies and train operators alike. To put this into context, a 2% reduction in PPM MAA would result in £20m annual loss of revenue to VTEC (or £160m as an NPV over 10 years) and for our passengers, this would equate to an additional 8 million minutes of delay every year - time they will never get back. The impact on total rail revenue and total delays to passengers would be even greater.

ORR appears to be taking the most optimistic possible view on performance. Whilst we accept timetables will be fine-tuned to achieve the best possible performance, ORR must agree that adding trains increases performance risk incrementally, and the closer you get to completely full (8 LDHS trains per hour) the greater the likely impact. It is surely unsafe, and likely to distort its decision making, for ORR to ignore the weight of evidence that performance on this key route would be affected, and the consequences of that for passengers and rail revenues. We have consistently argued that further performance modelling is required for ORR to discharge its statutory duties safely. In the absence of further modelling at this stage, ORR could either use the 1.8-2% evidence put forward by the infrastructure provider that it regulates, and consider this impact as part of its decision making process, or not at this stage approve the theoretically maximum 8 LDHS paths until a full impact assessment can be carried out.

The most recent example of increased train paths was by Transpennine Express in May 2014, when they introduced a 5th path between Leeds and Manchester, which saw performance decline from 90.4 % PPM MAA in P1 2014/15 to 88.4% in P11 2014/15 (and currently 87.7%):



This two percentage point reduction in PPM MAA supports our view that without further detailed modelling, Network Rail’s 1.8%-2% reduction in PPM MAA is reasonable at this stage and ought to be given appropriate weight by ORR.

4. Serious concerns regarding Option 16 (First Edinburgh with faster journey times)

Although we welcome the inclusion of an option in the CH2M analysis of a First Edinburgh service with more realistic journey times, we remain deeply concerned by the model results and therefore the modelling behind those results. These concerns are threefold:

4.1 Running the CH2M timetable files through MOIRA shows an INCREASE in abstraction from VTEC of 30% when the FirstGroup journey times are reduced in Option 16 vs those in Option 15 (First Edinburgh slow journey times with no overtake). However, the chart in the CH2M appendix H (Figure 1) shows abstraction due to MOIRA GJT effects has DECREASED vs Option 15 (Table 1). Without seeing the detail behind the charts we cannot be sure what is causing this, but it appears that an error may have been made in the CH2M model when processing the MOIRA inputs that underestimates the abstraction in Option 16.

Table 1 Differences between MOIRA impact and those shown in CH2M charts

	CH2M GJT Abstraction (All week)	Raw MOIRA Abstraction (Weekday only)
Option 15	£26.0m ¹	£14.4m
Option 16	£23.0m ²	£18.7m
Difference	-£3.0m	+£4.3m

¹ Estimated from CH2M Jan 2016 Report Figure 11 ² Estimated from Appendix H Figure 1

- 4.2 Option 15 (Figure 11 in the CH2M Report) shows a negative abstraction due to fares. We have repeatedly queried this in letters and in meetings but no explanation has been forthcoming. Now in Option 16 Appendix H, the negative abstraction has disappeared with no explanation. While we welcome this change, we feel that it merits an explanation.
- 4.3 There is also an inconsistency in how the charts in Appendix H have been compiled. For some reason, Fares and Air are now combined in Figure 1 where they were split out in the analysis of Option 15. Again, it does not provide us with confidence in the modelling.

Aside from the points raised above the amendments to the modelling carried out have created a material swing in the NPA ratio (0.81 in Option 15 down to 0.48 in Option 16 (now reduced to 0.42 following the error correction in David Reed's email of 11/04/16)). This further compounds our concerns about the CH2M modelling. For comparisons to be made between Option 15 and 16 the changes made to drivers other than timetables in Option 16 should also be applied to Option 15 and distributed for comment.

5. Fares within the NPA process

We remain seriously concerned that ORR is potentially willing to pass a track access application on the basis of a fare strategy that the operator cannot be held to in reality. On top of this, it is unprecedented that a competitive response is included in the appraisal of the applications. This is a significant departure from previous track access appraisals. We suggest that this type of change to process and the methodology for its modelling requires consultation and technical review before being used in appraising applications that will have such a profound impact on the rail industry.

6. Fares modelling

We have fundamental concerns with the modelling and disagree with ORR's assessment that the CH2M report is now fit for purpose.

We are pleased that ORR are now taking our concerns regarding the CH2M fares modelling seriously and have passed on our analysis to Systra for review. Systra responded by stating that we had made an error in our analysis. A further challenge from us prompted a further Systra review and this time they found an error in the CH2M modelling.



Apart from bringing into question the CH2M modelling and the robustness of the Systra review, we still do not understand the error that was made, the remedy or the results that are now being produced. In particular:

- Why do the absolute revenue values stay the same but only the generation and abstraction balance changes?
- We were only able to find this error using a sensitivity that was presented in the CH2M report. How can we be sure that there are not more errors hiding within the CH2M fares model. Full disclosure of this model is now required so that we can satisfy ourselves that no further errors are contained within the model.
- The CH2M report should be re-issued with all options corrected, along with an opportunity to respond.

We set out these concerns in Appendix A of our initial response (dated 8th February 2016) to the latest CH2M report. In this we demonstrated that the fares elasticity that the CH2M competitive response implies is a massive -2.15 which is far higher than the PDFH recommendation of 0.8 for business and -1.25 for leisure. The CH2M results suggest that demand increases by 4.2% for a 2% decrease in average yield. This is twice the level of generation that would be expected by PDFH. Although it appears that CH2M have now “corrected” this, it is unclear how this has been done and does not account for the continuing high level of generation beyond what is rational for this market.

We are still unable to replicate the high level of generation and low level of abstraction shown in the CH2M fare model results. Given the importance of this issue for deciding which applications pass the NPA test we have asked for a meeting with CH2M to discuss this concern face to face and see whether we can get to the bottom of the discrepancy. Our modelling suggests this issue alone would more than halve the NPA ratio, reducing it to 0.21 which would mean the FirstGroup Option 16 falling well below the 0.3 threshold. This is without addressing any of the other concerns we have with the modelling of this option. Despite the latest error corrections (David Reed email of 11/04/16), this remains an outstanding material issue that must be addressed and we re-iterate our request for a face to face meeting with CH2M Hill before these results are presented to the ORR Board.

7. The principle of incorporating a competitive response

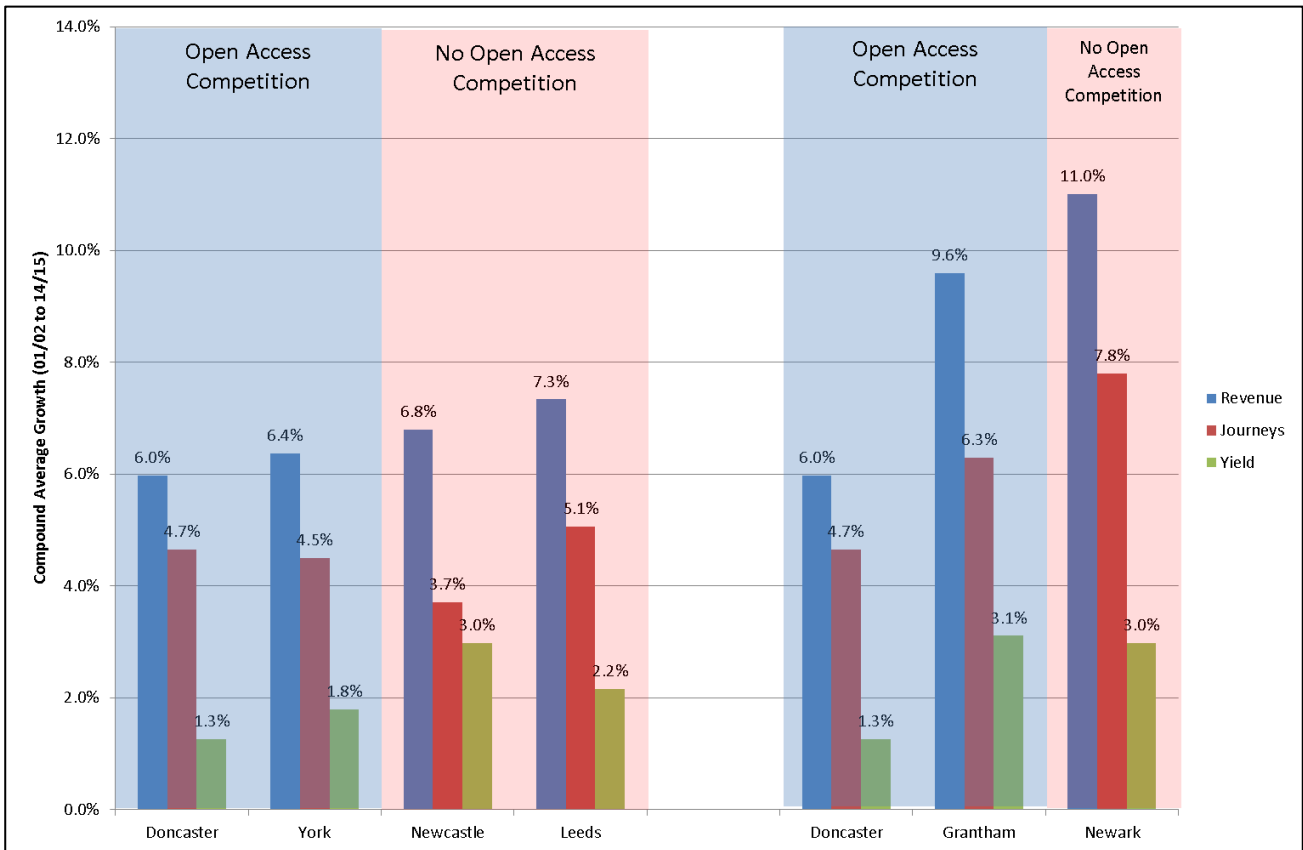
We accept that some competitive response may be seen where rail is the dominant operator but it is illogical to believe that lower fares arising from on-rail competition would increase overall rail revenue, unless you also believe that reducing fares would increase revenue for a single rail operator. We do not accept the CH2M Hill modelling which leads to this conclusion, but if ORR does choose to rely on that modelling it must surely follow through the logic and assume for consistency that VTEC fares in the base case would also be reduced.

We have undertaken some analysis of various Intercity East Coast (ICEC) markets that have open access competition and compared them to markets without (Figure 1). The important thing to note here is that where yields have been suppressed this has not resulted in additional revenue as the



CH2M modelling is suggesting would happen. Quite the opposite. The yield dilution has resulted in lower industry revenue growth than the control flows.

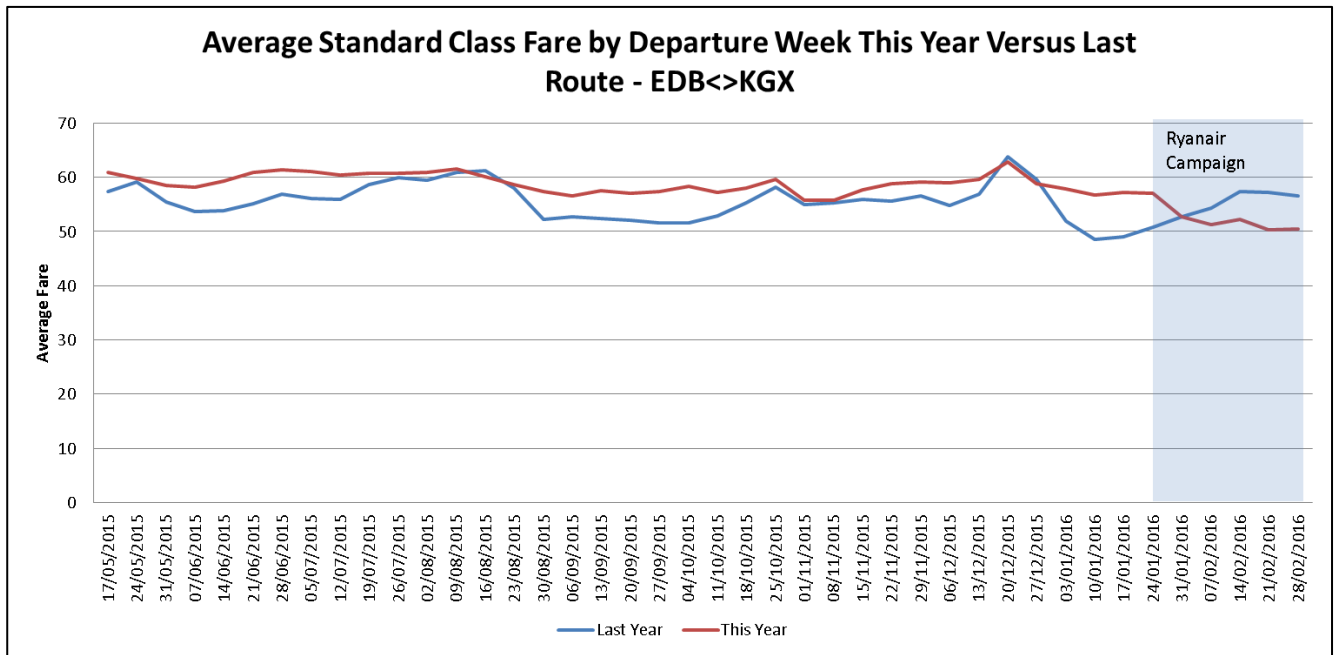
Figure 1 National Rail to/from London growth at selected ICEC destinations



On flows where rail is the minority mode, such as Edinburgh <> London we do not agree that a competitive response would be seen. On this flow, the airlines dictate the revenue maximising fare.

We have undertaken a high profile Edinburgh <> London campaign to compete with an increase in availability of £9.99 fares offered by Ryanair. This campaign has seen nearly a fivefold increase in the availability of VTEC's £30 Standard Advance fares and from March/April a 50% increase in the availability of £40 Standard Advance fares. In addition to this, we have also introduced a 24 week booking horizon for our advance fares with the specific purpose of allowing customers a clear choice between air and rail throughout the booking horizon. Figure 2 below shows that, while fares did increase slightly over the period suggested in the letter from First Group dated 21/03/16, they have since levelled off, and have dropped very significantly since the New Year when Ryanair introduced their £9.99 lead in fare, showing again how air is the price setter in this market, and how VTEC has to respond to fares in the highly competitive air market, for example through our PlaneRelief promotion which offers train fares for £15 Edinburgh-London to anyone who has flown in the past year. This demonstrates that it is unrealistic to assume that there would be a further significant fares response to the introduction of five First Group services.

Figure 2 Average Standard Class Fares on Edinburgh <> London



Early results are showing the cheap fares are not driving significant increases in revenue suggesting that the elasticity is relatively low.

8. Gravity model does not accurately model abstraction

Given all the uncertainty surrounding a new East Leeds Parkway station, we firmly believe that a sensitivity should be modelled by CH2M with no new station at all.

In addition to our comments above, ORR’s use of a gravity model is inconsistent with its previous studies and decisions, but could be reasonable if it was demonstrably more reliable than the alternative. However, we have consistently raised concerns with the use of a gravity model as it does not model the vital issue of abstraction in a robust way. We have carried out some analysis of the East Midlands Parkway catchment (Figures 3 and 4). This shows the integration of catchments when such a parkway is parachuted into a market. The maps shows a complete overlap of the East Midlands Parkway catchment those of Nottingham, Derby and Loughborough. It is only the A50 corridor west of East Midlands Parkway which tends to use the new station almost exclusively, and this corridor used Derby and Loughborough stations prior to the opening of East Midlands Parkway. So it is clear that the parkway station has not opened up new catchment areas for rail. It is difficult to determine whether there is any increased penetration in the existing catchment areas caused by the new station, but the four stations in aggregate have not grown any faster than the rest of East Midlands Trains’ London flows.

Taking possible locations of the East Leeds Parkway the distance to Leeds could range from 12.8km to 20.4km. This compares to the distances from East Midlands Parkway to Nottingham (13.3km), Derby (19.8km) and Loughborough (13.7km). Therefore, East Leeds Parkway would be in a similar abstractive situation to East Midlands Parkway. This makes clear that the model needs to focus on



the rail heading station choice aspect of the change to give a more realistic view of the abstraction this station will create.

Figure 3 Derby and East Midlands Parkway to London trip origins

[Redacted]

Figure 4 Nottingham and East Midlands Parkway to London trip origins

[Redacted]

We note that the CH2M's Gravity Model doubled the level of generation at East Leeds Parkway station compared to MOIRA, giving the NPA result of 1.75 for the station (6-30, Phase 2 Final Report, January 2016). We were, however, surprised that the Systra audit rubber stamped this result, given that the same firm previously modelled and signed off an NPA result of 0.10 for the same station using a station choice model (MVA, Revenue & Economic Benefits from Yorkshire Parkway Station, December 2004). We have serious and legitimate concerns about this unprecedented use of a Gravity Model, a fact Systra highlighted to ORR in their review:

"This model is a new approach for the assessment of track access applications, previous studies having addressed the same issue through a station choice model."

Given this unprecedented departure from the station choice model and the known weakness of Gravity Models for assessing abstraction, we are particularly concerned that the ORR is refusing to include a station choice model as a sensitivity check to the level of abstraction/generation that the CH2M's Gravity Model is producing.

9. SDG Report is largely being ignored

ORR appears to be simply ignoring the SDG report rather than dealing with the differences with persuasive arguments. The reason given is that SDG have not included a competitive response. We do not believe this reason is good enough. CH2M can easily turn off the competitive response for the purpose of comparing with SDG on a like for like basis. In any case, CH2M should be providing a sensitivity without competitive response to give the ORR Board a feel for the impact of a driver that has not been considered part of the process in the past. We strongly suggest that the differences between the two reports are investigated and properly understood before a decision can be made.



10. VTEC Middlesbrough services will add significant capacity

Crowding was originally included in the CH2M analysis to better model benefits of introducing extra capacity on the network in the VTEC Middlesbrough option. We note that the crowding disbenefit has now been removed from the analysis which is a step forward but in no way reflects the revenue benefit that this option will bring.

We have now received diagrams from CH2M and we note that their allocation of rolling stock to services is very different to our bid proposals for reasons that we do not understand. The VTEC Middlesbrough option results in an increase in seats of 7% across the VTEC Full timetable. The crowding relief from this extra capacity was a vital component of the overall bid business case for the Middlesbrough service. To say that this does not reduce crowding seems utterly perverse to us and should be amended in the modelling. We undertook analysis as part of the bid process which forecast this to result in £7.3m p.a. of additional revenue from crowding relief.

11. Transparency

We again strongly suggest that CH2M carry out and document sensitivities around the assumptions which the ORR Board are going to have to weigh up. As a minimum, this must include: with/without competitive response, Gravity model/station choice model, further fares sensitivities.

We reiterate that the ORR, as a responsible public authority, must properly take the above considerations, together with the submissions we have made throughout the process, properly and conscientiously into account. The ORR must also come to a rational decision within the parameters of its statutory duties in accordance with principles of procedural fairness. In this context, for the reasons given above, we remain particularly concerned about the accuracy of the modelling in the CH2M Report and do not accept ORR's assessment that the CH2M report is now fit for purpose. We are also concerned at the fact that the SDG Report appears to be largely ignored by ORR in its analysis. It is essential as a matter of procedural fairness that the ORR informs VTEC and other stakeholders of the steps which it will now take to correct the modelling in the CH2M Report and to give proper consideration to the SDG Report, and the opportunity which it will give to VTEC and other stakeholders to participate in this process. We should be grateful for confirmation from the ORR that it will not proceed to place papers before the ORR Board for a decision on the open access applications until these fundamental concerns have been addressed. As you are aware, we remain very concerned and must continue to reserve our position.

Yours sincerely

A handwritten signature in black ink, appearing to read "A Sparkes".

Andy Sparkes
Business Development Director