

From the Parliamentary Under Secretary of State Claire Perry MP

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ALLIANCE RAIL HOLDINGS SECTION 18 APPLICATION – GREAT NORTH EASTERN RAILWAY

I firmly welcome the benefits for passengers that open access can provide, which can include increased choice and competition, new services providing better links to the regions they serve, and potentially lower fares.

We also have a duty to consider the possible financial impacts of such services on the taxpayer, and as such I am grateful for your invitation to submit evidence about the potential impact of this application on the Secretary of State's funds and investment programme. I attach the Department's analysis as an Annex to this letter. This focuses specifically on impacts on the business case for the IEP, and the associated East Coast Main Line (ECML) investment schemes planned for the current Control Period.

However, I want to make clear that this analysis does not attempt to capture either the direct passenger benefits or the wider economic and regional benefits that would flow from the introduction of open access services. I know that ORR will take full account of these in reaching your view on the application, in order to secure a fair balance between the interests of passengers, communities and taxpayers.

I am copying this letter to Rob Plaskitt, Head of Licensing and Regulation at ORR.

CLAIRE PERRY

ALLIANCE RAIL HOLDINGS SECTION 18 APPLICATION – GREAT NORTH EASTERN RAILWAY – Dft EVIDENCE

The ORR will be aware from the Department's earlier correspondence (meeting with and and and and and a solution and our concerns about the potential impact on the business case for the IEP, the associated East Coast Main Line (ECML) investment schemes planned for the current Control Period, and on the Secretary of State's funds.

The Department commissioned analysis from our ICEC franchise technical advisors (Steer Davies Gleave) and the IEP technical advisors (also Steer Davies Gleave) to investigate those impacts, with the aim of informing the decisions which the ORR will shortly be taking on this application. We are now in a position to let you have results of this work. We note the ORR's request to be able to share the Department's evidence with the applicant. This letter includes financial figures for the recently awarded ICEC franchise and are considered by the Department to be commercially confidential. We therefore provide two copies of this Annex: one detailing the financial figures for the ORR's internal use and a redacted version, which we are content the ORR can share with the applicant. We request that consultants' reports remain confidential as they include further details of the approach to the calculation of SoSRA. If a need to share more detailed assumptions presented in those reports arises, we are willing to discuss the most appropriate way of providing such detail.

Before getting into the detail of our analysis, the headline points from our submission are set out in the bullets immediately below. The GNER applications, if approved:

- Would substantially reduce the funds available to the Department, by seven over the franchise term (Edinburgh application) or seven to the franchise end, this cost will reach seven to the franchise (Edinburgh) and seven 2024/25 and 2033/34;
- Would severely weaken the Value for Money of the Intercity Express Programme, reducing the BCR from 8.79:1 to 1.13:1 and increasing the Present Value of the cost of this investment by £2,030m (Edinburgh; 2010 prices and values over 30 years appraisal) or from 8.79:1 to 2.73:1 and increasing the Present Value of the cost by £590m (Bradford/Cleethorpes; 2010 prices and values over 30 years appraisal);
- Depending on the type and reliability of the rolling stock deployed, could significantly worsen
 performance on what is already a complex and congested route, to the detriment of
 passengers and efficient operation;
- Our analysis is primarily based on the assumption that 8 long distance high speed paths per hour can be reliably delivered, which we believe is a conservative assumption; if this is not the case the adverse impacts could be higher and our concerns about capacity and/or performance and the impact on passengers on the franchised services could be exacerbated; and
- Would more generally pose a risk to future intercity rail investment, and the consequential benefits for passengers, if the Department cannot secure a return on its investments through franchise payments.

It should be noted that DfT and our consultants have not been able to assess in detail the operational feasibility or robustness of GNER's proposition alongside the other applications for the ECML capacity. The analysis of ECML capacity and performance are subjects of a Network Rail study recently commissioned by the ORR, which looked at the availability of Long-distance High-speed (LDHS) paths on ECML. We understand that the initial work, which reported in early September, established a number of options for the utilisation of the line and included scenarios with the total of seven, eight and nine LDHS paths in the standard hour. This initial assessment highlighted significant risks with the deliverability of nine LDHS paths, but did not exclude feasibility of the remaining scenarios at that stage. In agreement with you, we instructed our advisors to proceed with the analysis on the assumptions that eight LDHS paths on ECML would be achievable. Further analysis by Network Rail focussed on the assessment of seven and eight LDHS paths and concluded that eight LDHS paths would require some compromises in the stopping pattern and therefore result in a lower connectivity

to places such as Stevenage and Peterborough. Network Rail's capacity report also highlights risk to performance in the 8LDHS scenario with an estimated drop in PPM of up to 2%.

Our evidence presented here was based on the assumption that eight LDHS would be achievable. It is important to note that in case where the number of LDHS paths had to be reduced in certain hours to mitigate the risk for performance, the introduction of GNER service would result in a greater displacement of franchised services and could have greater financial impacts. To illustrate this we also included results of a scenario where the capacity is limited to 7.5LDHS (7 and 8 in alternate hours) and GNER's Bradford/Cleethorpes services are awarded rights.

We believe the evidence presented here directly relates to the following Section 4 duties of the ORR:

- To have regard to the funds available to the Secretary of State for the purposes of his functions in relation to railways or railways services;
- b) To have regard to the interests, in securing value for money of the persons who make available the resources; and
- c) To promote the development of the railway network to the greatest extent that it considers is economically practicable.

We considered the following impacts that we believe are relevant to these duties:

- A. Financial impact on the Department's budget
- B. VfM of the IEP Phase 1&2 business case
- C. Impact on future inter-city rail investment
- D. Impact on passengers and franchise services
- E. Performance considerations

To understand the financial and VfM impacts (impacts A. and B.) two GNER scenarios were tested:

- <u>The Edinburgh application</u>: hourly service between King's Cross and Edinburgh via Newcastle with some services also stopping at Stevenage; and
- <u>The Bradford/Cleethorpes application</u>: six trains per day between King's Cross and Bradford (via Shipley), one between King's Cross and Ilkley (via Guisley) and four trains per day between King's Cross and Cleethorpes.

The impact on the ICEC franchise premium has been estimated with the use of models submitted by the successful bidder (the ICEC bid model). The impact on the IEP business case has been estimated with the use of the IEP modelling suite, which provided the basis for the IEP financial close decision in February 2014. Detailed modelling assumptions and their effects are presented in consultants reports released in addition to this letter.

In summary, we estimate the following financial impacts if the GNER applications were to proceed:

Impact		Edinburgh Application	Bradford/ Cleethorpes Application
A. Financial impact on the DfT funds (£ nominal)	Total financial impact on the franchise SoSRA cost to DfT during the VTEC ¹ franchise term		

¹ Virgin Trains East Coast

fra	uring subsequent anchise 0 years, full cost)		
B. VfM of IEP in	vestment	BCR fall from 8.79 to 1.13	BCR fall from 8.79 to 2.73
(Phase 1&2) (2010 prices a 30year appra		£2,030m increase in the Present Value cost of the investment *	£590m increase in the Present Value cost of the investment *

* This cost increase is estimated using DfT's IEP appraisal suite and represents an increase in cost due to revenue loss over 30-year appraisal. The cost is expressed in real 2010 prices discounted to represent 2010 Present Values (in-line with WebTAG) and derived from the IEP modelling suite, growth and DfT's timetable assumptions as they stood in February 2014 during the IEP financial close and prior to the issue of the final East Coast franchise service specification. These figures are an economic appraisal measure and do not correspond directly to the actual financial impacts derived from the subsequent winning bidder's financial model (A). However, as far as practically possible, they are based on consistent GNER service assumptions and illustrate the economic and value for money impacts on the IEP project.

Further to the cost impacts summarised above we believe that the applications pose a risk to future intercity rail investment and ultimately could have significant negative impacts on passengers since the Department may not be in the position to afford significant increments for future franchises. These considerations are summarised below:

Impact	Edinburgh Application	Bradford/ Cleethorpes application		
C. Impact on future inter- city rail investment	Lower franchise premia as the bidders will price in risks in future franch competitions. Reduced ability for revenues (through franchise premia) to offset cost of investments. Two possible outcomes arise from this: - increased cost of investment and therefore increased budget requirements; or - reduced level of investment to fit within the affected budgets. The impact on future investment cases is not just that less money is available support future investment. If this precedent is set it is likely to be much harder to just public sector investment in major rail enhancements in future. If Class 390 are operated on the Edinburgh route, the maintenance requirements the route are likely to increase and it is unclear how this cost would be covered.			
D. Impact on Passengers and franchise services	Reduction in connectivity to York and other locations (e.g. Stevenage, Peterborough) depending on ECML capacity scenario. Loss of connectivity in Scotland beyond Edinburgh and loss of potential for specifying extensions of ICEC services beyond Edinburgh.	Reduction in frequency to some locations (e.g. Lincoln, Stevenage, Peterborough) depending on ECML capacity scenario. Loss of potential for specifying extensions of ICEC services to Bradford (ICEC can serve destinations beyond Leeds without the need for taking additional ECML paths).		
	 Franchises are designed to deliver economic benefits to passengers and wider society: Franchise typically operates longer trains than GNER are proposing, offering greater crowding relief within the same number of paths; Franchise can deliver connectivity and journey times to destinations such as Bradford more efficiently (by extension of the Leeds services) - without the need to take more paths; and IEP investment is developed with connectivity, performance and quality in mind. Potentially sub-optimal use of paths when operated only with commercial rather than social purposes in mind. Sub-optimal design of the timetable may impact on the connectivity and journey times to key locations. 			

e from airline operators and scope for lowering fares may be will also increase the loss of revenue by the franchise and in the financial health of the franchise and DfT budget in the
tilised route, which already operates below the performance hlighted significant risks for performance if GNER services are oreduce connectivity to some locations. We believe that ORR Rail to confirm that the introduction of these additional services chievement of its committed performance targets. The risks will be imported if GNER are not able to secure new ort to using phased out Class 225s, 180s or HSTs. The e vehicles will need to be contracted at a suitable depot with the it this work. At the moment, performance of these trains is nan the contracted performance of the IEP trains. journey times of 3h43m would likely have adverse impacts on the ely need for GNER to overtake ICEC services would impose
rry ou orse th tional

The remainder of this letter presents an overview of the evidence (both in quantitative and qualitative from) covering the details of the impacts summarised in tables above.

A) Financial impact on the Department's budget

As you are aware, the Department has very recently awarded the ICEC franchise. The franchise agreement includes a protection of the franchisee against the risk of not getting the paths necessary to deliver certain 'key' services, which the bidders could not price for efficiently. The provision is set out in the register of the Secretary of State Risk Assumptions (SoSRA) and covers approximately 80% of revenue lost from the 'key' Monday-Friday services in the event that the franchise does not get paths necessary to deliver such services. The franchisee bears 20% of the risk to encourage steps that would mitigate the financial impact, such as for example amendments of the timetable or introduction of alternative services. The TOC will bear revenue losses from weekend or non-key services. This will also have adverse impacts on the TOC who will be forced to absorb these impacts with an adverse impact on its financial health and potential reduction of non-contractual initiatives.

It is important to note that SoSRA protects the franchisee from some negative financial impacts on its profit and loss account. However, the cost of this sits with the Department who will receive lower premium. It is also important to note that beyond the franchise term the Department will bear 100% of the impact as the reduced value of the franchise will be reflected in future franchise bids.

The analysis presented in this section is based on the service specification proposed by Alliance in their Section 17 application for access rights². Our consultants, incorporated these service proposals into the MOIRA³ timetable submitted by the winning bidder to support its TSR and which is likely to be the basis of the franchise timetable it delivers. The timetable as bid forms the base case. Two scenarios were tested against the franchise base case: The Edinburgh scenario and the Bradford/Cleethorpes scenario.

The base case franchise scenario (the contracted timetable) includes the following services:

- Two trains per hour between King's Cross and Edinburgh;
- Two trains per hour between King's Cross and Leeds (with one train every two hours extended to Bradford Forester Square);
- One train per hour between King's Cross and Newcastle;
- One train per hour between King's Cross and Lincoln or Harrogate (via Leeds and Micklefield) alternately; and
- One train every two hours between King's Cross and Middlesbrough.

Edinburgh Service

Network Rail's capacity report identifies constraints on the ECML sections between Northallerton and Newcastle (three LDHS paths). This supports our assumption that in case of the Edinburgh application the GNER service will need to replace the fast ICEC Edinburgh service. This would trigger the SoSRA although in-line with the SoSRA incentives, we assumed that the franchisee would decide to mitigate the revenue losses by operating an additional service to York or Huddersfield alternately.

We also assumed that for the immediately foreseeable future the journey times achieved by GNER will be similar to those in the contracted timetable (approximately four hours). We believe that this is a more realistic and conservative scenario than GNER's aspirational journey times of 3hr 43min. Such journey times would require tilt, which in turn would require considerable capital investment in the route and this is not currently specified or programmed into the route upgrade. If ICEC were to operate such journey times it would likely need to overtake ICEC services leading to additional lost dwell and journey time, further loss of ICEC revenue and importing further performance risks. As this aspiration relies entirely on the availability of the Class 390 Pendolino rolling stock, which is uncertain given the timescales and additional investment requirements, we assume that additional journey time improvements beyond those offered by the ICEC franchise are not likely. We also note that as part of the implementation of IEP improvements, the VTEC franchise will already deliver journey time improvements above the current journey times and is forecast to capture a significant amount of the Edinburgh-London air traffic (approximately 30% of the Edinburgh market is forecast to come from air), which is reflected in the base case used in our analysis. GNER services are assumed to form a direct replacement of the VTEC fast service and therefore in our analysis there is no further abstraction from air beyond what is included in the already uplifted base case market. In our fares sensitivity test we also assume that VTEC will already be under competitive pressure from airline operators on the Edinburgh route and offer competitive fares with a limited scope for under-cutting these by GNER.

Bradford/Cleethorpes Service

In case of the Bradford/Cleethorpes application, if we assume that 8 LDHS are achievable the contracted service that would need to be displaced could be the ICEC Middlesbrough service operated in every other hour. To compensate for this loss we assume that the franchisee could divert one direct Newcastle service to Middlesbrough in every other hour. If we assume less than 8LDHS on ECML (e.g. 7 and 8 in alternate hours) more ICEC trains may need to be displaced leading to lower than the minimum service specification contracted with the franchise and a greater loss of revenue by the franchise.

This highlights that the level of adjustment under SoSRA depends on the final determination of the ECML capacity and in any case the Department will bear the full cost impact in the subsequent franchise term where the future bidders will price in the loss of revenue to GNER. The impacts were analysed over the following periods:

² Including some stops at Stevenage as subsequently advertised on Alliance's website.

³ MOIRA is an industry standard timetabling and revenue modelling tool. The winning bidder's model used in the analysis, as well as the entire franchise competition, were based on the PDFH5.0 version of the model.

- 2020/21 to 2023/24 covering the recently awarded franchise term. We assume that the soonest that the GNER services could be operated is 2020. If GNER operates Class 390s (Pendolinos) to Edinburgh, the journey times on the route will depend on the full implementation of IEP (2020) due to its improved performance characteristics and we understand there is little lead time for the procurement of the rolling stock. If GNER operates bi-mode IEP rolling stock we believe it is unlikely that such order could be delivered ahead of the full IEP order for the ICEC franchise. We also assume that the optional one year extension will be exercised by the Department and the franchise will end in 2023/24. Overall the commencement of the GNER operation in 2020 is a conservative assumption. If the GNER service starts operating sooner the financial impact on the franchise will be considerably greater; and
- 2024/25 to 2033/34 covering an assumed term of the subsequent franchise. The terms of the SoSRA protection will not be applicable to the subsequent franchises and the Department's budget will bear the full cost impacts of both applications.

We run the analysis in two modes:

- One is using the bidder's models as submitted, which is based on the standard application of MOIRA and assumes no difference in fares between ICEC and GNER. This model forms the basis for the calculation of the SoSRA adjustment, in line with the franchise agreement; and
- In addition to this we run a sensitivity test using MOIRA 'minor operator' mode. This assumes
 fare competition from GNER (except for the Edinburgh market) and the strength of marketing
 as factors, which determine the share of operator specific tickets in the overall market and
 therefore reduce the share of inter-available tickets allocated through ORCATS⁴. This test
 does not impact the level of SoSRA, but demonstrates a greater financial impact on franchise
 profitability, and on the Department after the current franchise term. The results for both GNER
 scenarios over the current franchise period are presented in Tables B.1 and B.2 below

⁴ ORCATS is a model used in the industry to allocate inter-operable revenue between TOCs. It is based on the operating timetables and its core functionality is approximated within the MOIRA model.

Table B.1 – Financial impact of GNER Edinburgh service over the current franchise term (£m, nominal) cost to the franchise are presented as negative; savings to the franchise are presented as positive. Reduction in premium is presented as a saving for the franchise (but cost to SoS funds)

	Base case	Difference from base case	
	Including abstraction from air		
Passenger Revenue			
Other Revenue			
Cost			
Net			
Premium			
Profit or loss			
As above, but with	15% GNER fa	re reduction	
Passenger Revenue			
Other Revenue	Contraction (
Cost			
Net	No. Contraction		
Premium			
Profit or loss			

The introduction of the GNER service to Edinburgh will have a severe financial impact on the Department over the four years when the franchise is assumed to be affected. Some savings can be achieved (**1999**), but due to large revenue abstraction of **1999**, the net effect is **1999**. Based on the rules of SoSRA only the core services are protected (details in the consultants' reports) and the franchisee bears approximately 20% of the risk. Based on this, the estimated value of SoSRA protection and therefore a reduction in the franchise premium is **1999** and this is the financial cost to the Department over the four years over which the impact is assumed to accrue. The reminder of the impact will be accommodated by the franchisee through lost profit and possibly cut-backs in quality initiatives. If GNER undercuts ICEC on fares (bottom of the table) the level of SoSRA protection will remain the same, but the impact on franchise profit will be greater. If the capacity of ECML is determined to be lower than 8LDHS and further cut-backs in VTEC timetable need to be made, the impacts presented here could be greater.

Table B.2 – Financial impact of GNER Bradford/Cleethorpes service over the franchise term (£m, nominal) cost to the franchise are presented as negative; savings to the franchise are presented as positive: Reduction in premium is presented as a saving for the franchise (but cost to SoS funds)

	Base case	Difference from base case		
	Including abstraction from air	With GNER to Cleethorpes & Bradford	With GNER to Cleethorpes & Bradford	
		(8LDHS)	(7.5LDHS)	
Passenger Revenue				
Other Revenue	Contraction of the	Contraction in the		
Cost				
Net	-			
Premium				
Profit or loss				
As above, but with	h 15% GNER	fare reduction		
Passenger Revenue	1			
Other Revenue	1.0.000			
Cost			1.000	
Net	And South			
Premium				
Profit or loss			10.000	

Introduction of the GNER service to Bradford/Cleethorpes will have a lower impact than in case of Edinburgh, but still substantial. The loss of revenue is expected to be between and and depending on ECML capacity scenario. Including opex savings the net impact on the franchise is estimated to be between and and respectively. The level of SoSRA reduction in the premium paid by VTEC depends highly on the ultimate level of capacity on ECML and the precise details of affected services. The estimate based on the current assumptions suggests it could vary between although the lower end of this estimate depends on ICEC securing full rights to operate its core services (at least 6tph, which includes 2tph to Leeds). The risk of triggering the details of future timetables and access rights. Fare competition will put further pressure on VTEC and increase the net loss to between access is over the franchise term.

The impacts presented above were extrapolated over a period of ten years beyond the current franchise period to illustrate the full impacts once the current franchise agreement ceases. These are presented in Table B.3 and B.4 below.

Table B.3 – Financial impact of GNER Edinburgh service after the current franchise term (£m, nominal) cost to the franchise are presented as negative; savings to the franchise are presented as positive. Reduction in premium is presented as a saving for the franchise (but cost to SoS funds)

	Para	Difference from base case	
	Base case	With GNER to Edinburgh	
Total Revenue			
Cost	A CONTRACTOR		
Premia			
As above, but w	ith 15% GNER f	are reductior	
Total Revenue			
Cost			
Premia		And Support in the local division of the	

After the expiry of the current franchise the Department will bear the full cost impact of the GNER operation. If GNER operate a service to Edinburgh this is estimated to have an impact on the premium in the order of between 2024/25 and 2033/34. Fare competition could increase this negative impact to **Edinburgh**.

Table B.4 – Financial impact of GNER Bradford/Cleethorpes service after the current franchise term

(£m, nominal) cost to the franchise are presented as negative; savings to the franchise are presented as positive. Reduction in premium is presented as a saving for the franchise (but cost to SoS funds)

and the second second	Base case	Difference from base case		
		With GNER to Cleethorpes & Bradford	With GNER to Cleethorpes & Bradford	
		(8LDHS)	(7.5LDHS)	
Total Revenue			No stan	
Cost	Discourse and			
Premia				
As above, but v	vith 15% GNER	fare reduction		
Total Revenue				
Cost	12-2-51		1 Acres 1	
Premia				

In case of the GNER Bradford/Cleethorpes services the revenue impact is lower, but still significant. After the expiry of the current franchise the Department will bear the full impact of the abstraction with the net effect estimated to be between the service of the abstraction with (depending on the ECML capacity scenario) increasing to between the service of formation of the service of formation of the service of the ser

B) VfM and affordability impact on the full IEP business case

The IEP investment reached financial close in February 2014. The full scheme (Phase 1 and 2) had a very high value for money category with a BCR of 8.79 (BCR of 11.72 was published in February 2014; revised to 8.79 in November 2014 in preparation of this analysis). The IEP scheme delivers very high value for money largely due to revenue that it is forecast to generate. The IEP enabling infrastructure investment and the new rolling stock will unlock additional capacity on ECML and the scheme relies on the assumption that the revenue generated through the additional capacity will accrue to the ICEC

franchise. This assumes a minimum of 6tph ICEC paths from London⁵ and no increase in the open access services beyond the existing Hull Trains and Grand Central. Given that the aspiration to operate fast GNER services relies on these improvements unlocked by the IEP investment, the introduction of GNER has a direct impact on this investment.

The primary impact of the GNER operation will be the loss of revenue to the ICEC franchise, which would no longer flow through to the Department in the form of franchise premium as part of the Broad Transport Budget. The Open Access revenues are represented as a benefit in appraisal⁶. As a result, it is no longer possible to partly offset the cost of the IEP investment making it more expensive to the taxpayer. These impacts are illustrated in Figure 1 below:

Figure 1: The impact of Open Access receiving access rights at the expense of the franchise operator on the IEP Business Case (Phase 1 and 2) Benefit Cost Ratio⁷



The second impact is a change in economic benefits that arise from changes in the timetable when GNER is introduced. Consistently with the financial analysis (section A of this letter) we assumed that GNER Edinburgh service will need to displace one of the ICEC Edinburgh services. We believe that the journey times to Edinburgh would need to be similar to those of the displaced service, offering no further journey time savings and reducing connectivity to York (GNER does not plan to stop there). The negative impacts could be mitigated by an introduction of services to alternative destinations and therefore offer some additional benefits. In case of the Bradford/Cleethorpes there will be an improvement in the connectivity to Cleethorpes, but depending on the determination of ECML capacity, there will be a loss of stops at other stations (Stevenage, Peterborough).

However, we would like to emphasize that the precise impacts depend highly on the timetable specification. The timetable specified for the business case reflected the aspiration for the franchise at that time, but the detailed breakdown of winners and losers resulting from the introduction of GNER will depend on the final determination of ECML capacity and specific details of timetable design.

It is also possible that GNER may provide benefits to passengers from fare competition. In the analysis of the financial impacts described in Section A we run a sensitivity test to investigate a potential higher abstractive impact of the fare competition. The IEP modelling suite does not include a functionality to capture any potential passenger benefits that may arise from this and therefore we have not modelled this sensitivity here. However, it is important to note that any potential fare competition would increase the financial impact on the Broad Transport Budget increasing the cost of investment and the Present Value of Costs for the scheme (Figure 1 above). This impact would largely offset potential fare benefits to passengers and negative impact on the VfM of the investment would remain. We also note that the extent to which GNER would be able to offer fare discounts is unclear given the requirement to cover

⁵ The timetable of the recently awarded VTEC franchise is in fact contracted to deliver 6.5 LDHS ICEC paths from 2020.

⁶ In line with WebTAG appraisal guidance, the Present Value of Costs of a scheme reflects the impact on the Broad Transport Budget. See TAG Unit A1.1, paragraph 2.8.6 available at

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/275125/webtag-tag-unit-a1-1-cost-benefit-analysis.pdf. ⁷ The financial case is equivalent to the denominator of the BCR equation or the PV of Costs. We define the PV of Costs as the impact on the broad transport budget. Since the BCR is greater than 1, the impact of a loss of premium on the denominator has a greater proportional impact on the BCR than an equivalent gain of open access profit in the numerator (PV of Benefits).

the cost of new rolling stock. Our analysis does not consider this as it would require advanced commercial modelling and an understanding of GNER's Profit & Loss account.

The effects described above are presented in Table B.5 below.

Table B.5 - IEP Phase 1 and 2 business case impacts

(£000s, 2010 values and prices, 30-year appraisal)

Benefits are shown as positive and dis-benefits as negative values; Cost are shown as positive and cost reductions as negative values; Revenue increase is shown as positive and reductions as negative values.

	(1)	(2)	(3)	(4)	
Business Case Impact	IEP Phase 1 and 2 financial close base case (February 2014)	IEP Phase 1 and 2 revised base case (November 2014)	Open Access Scenario (GNER to Edinburgh)	Open Access Scenario (GNER to Bradford / Cleethorpes)	
(a) Benefits*	1,782	1,780	1,667	1,995	
(b) Private Sector Impacts (OA)	n/a	-133	827	125	
(c) Net Benefits (PVB) [a+b]	1,782	1,648	2,494	2,120	
(d) Costs (capex and opex)	1,354	1,523	1,320	1,523	
(e) Revenue	1,202	1,336	-896	746	
(f) Net Costs (PVC) [d-e]	152	187	2,217	777	
(g) NPV [c-f]	1,629	1,461	278	1,343	
(h) BCR [c/f]	11.72	8.79	1.13	2.73	

* includes passenger benefits, externalities and indirect taxation impacts

Column one presents the results of the published financial close appraisal (February 2014) which had a BCR of 11.72.

Column two presents the adjusted base case appraisal (November 2014), which includes minor updates to IEP opex (proportion of electric and diesel mileage of the IEP bi-modes), corrected treatment of changes in the existing open access revenues in the appraisal and adjustments to capex not accounted for in February 2014⁸. These amendments result in an adjustment of the BCR to 8.79. Column three presents the impacts of the GNER Edinburgh service.

Column four presents the impacts of the Bradford/Cleethorpes services.

The GNER Edinburgh scenario (Table B.5, column 3) should be compared with the revised base case scenario (Table B.5, column 2). It shows a slight fall in the passenger and external benefits from £1,780m to £1,667m. This includes positive crowding benefits countered by worsening connectivity to key destinations such as York. This scenario also returns significant net private sector impacts (£827m), a net result of opex and revenue that accrues to GNER. However, the major impact is on franchise revenue. Whilst costs reduce slightly from £1,524m to £1,320m, which is a net result of savings in the IEP mileage (withdrawal of the ICEC Edinburgh service), the major impact is on revenue where the base case revenue increase of £1,336 resulting from the introduction of IEP falls to £896m, below the level of revenue in the Do-Minimum. The net increase in cost compared to the base case is £2 billion. These results in the BCR of 1.13.

The GNER Bradford/Cleethorpes scenario (Table B.5, column 4) shows a slight increase in passenger and external benefits from £1,780m to £1,995m. This is because under the assumption of eight LDHS paths, in this scenario the displacement of ICEC services is lower than in case of Edinburgh. The net private sector impact of £125m is lower than in the Edinburgh scenario due to lower revenue abstraction by GNER. Similarly to the previous scenario the major impact is a fall in the franchised revenue from £1,336m to £746m. The net impact on is a £590m increase in costs resulting in a BCR of 2.73.

⁸ Infrastructure improvements required as part of the IEP enabling work will require additional spend funded from the £240m Connectivity Fund, which was omitted in the February 2014 financial close analysis. The precise details of which projects included in the fund are required to deliver the required capacity and performance outputs are unclear. We assumed that the Fund will need to be spent in full to enable the IEP outputs and updated the base case (column 2) accordingly.

Overall all these effects result in a reduction of NPV from £1,461m (base case) to £278m (Edinburgh scenario) or £1,343m (Bradford/Cleethorpes scenario). The BCR reduces from 8.79 (revised base case) to 1.13 (Edinburgh scenario) moving the project from very high to low value for money category with an associated impact on the Broad Transport Budget in the order of £2 billion. In case of GNER service operating to Bradford/Cleethorpes the BCR reduces to 2.73 with a corresponding impact on the Broad Transport Budget in the order of £590million.

These cost increases were estimated using DfT's IEP appraisal suite and represent an increase in cost due to revenue loss over 30-year appraisal. The cost is expressed in real 2010 prices discounted to represent 2010 Present Values (in-line with WebTAG) and derived from the IEP modelling suite, growth and DfT's timetable assumptions as they stood in February 2014 during the IEP financial close and prior to the issue of the final East Coast franchise service specification. These figures are an economic appraisal measure and do not correspond directly to the actual financial impacts derived from the subsequent winning bidder's financial model (A). However, as far as practically possible, they are based on consistent GNER service assumptions and illustrate the economic and value for money impacts on the IEP project.

C) Impact on future intercity rail investment

The long-term impact on rail investment from allocation of an important access right to an Open Access operator would likely be significant. Without an ability to recapture profits from rail services, the costs of rail infrastructure schemes to the public sector would be higher and therefore investment may become more restricted because of the reduced ability to claw back revenues to offset the investment.

In addition, there could be impacts on future franchise competitions from the uncertainty created if important access rights were granted to an OA operator. Franchises would likely deliver lower value as bidders would price-in the risk in their bids of losing track access and therefore would offer lower premiums to the Department or require higher subsidies.

This would lead to two possible outcomes:

- The Department would require a larger budget to maintain the same level of investment in both
 a scenario where more paths are allocated to OA operators or where the franchise bidders
 perceive an increase in the risk of loss of track access rights. The cost of running and
 investment in the railways would therefore increase; and
- In practice, this could lead to a significant reduction in investment in intercity rail infrastructure in the future if the Department cannot secure both the economic benefits and revenues from its investment.

It is also likely that some of the proposed services would put further pressure on the infrastructure (power supply north of Newcastle and greater wear of track in case of operating Pendolinos) leading to greater maintenance expenditure. It is unclear how such additional expenditure could be covered.

D) Impact on passengers and current franchise services

Whilst the proposed service from GNER may deliver passenger benefits (e.g. more services for Bradford, fast journey times to Edinburgh and Newcastle), aside from the four Cleethorpes services and one Ilkley service, these are benefits that are also proposed to be delivered by Inter City Railways Itd. The Inter City Railways could offer a more efficient way of providing the overall capacity without the need to increase the number of paths on ECML (for example Bradford could be served by extending the VTEC Leeds services with no need for additional paths and therefore performance risks would not be material). VTEC would typically operate longer trains than those proposed by GNER and therefore offer a more efficient way of relieving overcrowding without the need to use more paths.

The approval of GNER's Edinburgh application would result in the loss of connectivity to York (including York to Scotland). The approval of GNER's Bradford/Cleethorpes application would provide direct

connections to Cleethorpes and Ilkley, but could result in the reduction in frequency at intermediate stops (such as Stevenage and Peterborough). Therefore at some stations the level-of-service could improve, whilst some others could see a reduction in service. The balance of winners and losers is uncertain and depends on the precise details of the timetable, but the key locations such as York or Stevenage would see reductions.

Benefits to passengers could arise from fare competition if GNER was to offer lower fares to some destinations (exception may be the Edinburgh route where rail is already under competitive pressure from the airline operators and scope for lowering fares may be limited). However, it needs to be noted that in the event of fare competition a greater number of passengers will be abstracted by GNER and the revenue loss by VTEC will be greater (upper bound of our estimates of the financial impact) further undermining its financial health and impacting on DfT's RDEL budget. It is also unclear to what extent GNER would be able to offer significant fare discounts given the commercial need to cover the cost of newly procured rolling stock.

If either of GNER's bids is successful then the reduction in the budget available for franchises reduces the Department's ability to specify improvements that passengers would wish to see in future franchises and other rail investment. As ICEC is a revenue risk franchise, in the event of revenue loss, Inter City Railways Ltd could seek to reduce their costs through savings in the implementation of non-contracted initiatives. This could potentially lead to a reduction in the passenger benefits.

E) Performance Considerations

The GNER service is proposed to run across an already heavily utilised route. Increasing the number of operators on the route would likely have adverse performance impacts and consequently may have adverse impacts on the reliability of the existing services.

These impacts could be expected to be substantially greater if the rolling stock stated by Alliance cannot be delivered. If alternatives such as Class 180 or 225 with different operational and reliability characteristics are used additional risks for performance could be imported. We note that managing performance on the route is already complex and requires a high level of intervention to meet planned levels. We are unaware of any detailed timetable validation or performance modelling by Network Rail, which considers these issues and the extent of such a risk is still unclear.

The impacts of the risk of worsening performance from an increased number of operators captured in our financial analysis are conservative as we assumed that the GNER services will have similar characteristics to VTEC services (journey times, rolling stock) and will not require the introduction of overtaking and other significant timetable changes that import performance risks. In practice, if any of these risks are material, further financial impacts, beyond the ones presented here would accrue. The economic disbenefits to passengers from worsening performance were not captured in our analysis as the tools used do not have this functionality, but we expect that any worsening of performance would have further adverse VfM impacts for the investments on ECML.