HS1 PR14 industry workshop

13.03.2013

ORR started the workshop by opening up a discussion on the questions ORR asked in its PR14 initial consultation document.

Question 1: Do you agree that CP2 outputs should balance HS1 Ltd's vision, contractual requirements and customer views? Are there any other relevant considerations?

Stakeholders questioned HS1 regarding the involvement of customers in the conversation. Customers were defined as Eurostar, Southeastern and DB Schenker, not passengers or customers of these train services. It was therefore agreed that it is up to the operators to feedback to HS1 on what their customers say. The stakeholders also agreed that they would provide ORR information on outputs on their performance. Operators were very clear that they were the organisations best placed to assess the needs of their customers, and consideration of end customer views would form part of operators' discussions with HS1.

Question 2: Do you agree that a wholesale review of the contractual incentives mechanisms is not necessary? In your experience, are the existing performance regime and possessions regimes working well?

The possessions regimes and the plans going forward were discussed. DB Schenker said that any move towards more double line blocks would cause concern and difficulties for freight operators. Eurostar were most concerned about incentives for recovery from large delays rather than small delays. HS1 said that they intend to reduce mid-week work to help reduce delays. NR(HS) will give some insight to cost implications of radically different possession operations. HS1 pointed out that the performance cap is excluded as part of this periodic review. All agreed that the incentives regime was about returning services to normal quickly following a perturbation, rather than primary focus being on the payment of compensation.

Question 3: Do you agree that the consultation document comprehensively covers those areas which should be considered as part of PR14? Are there any other areas which you consider we should be exploring?

Questions were raised about incentives, Eurostar noted that, with no competition in the market for NR(HS)/HS1 there are no market-based incentives for them. HS1 said that it tries to ring fence profit so that it is not spent incorrectly and they encourage NR(HS) to reduce costs. HS1 are working to increase the number of trains running, however operators are concerned that there are no incentives for over performance. Welcoming HS1's sharing of over performance, Eurostar said that it is important that the ORR's review results in a robust efficiency target against which over performance may be measured. NR(HS)/HS1 think that

there is an efficient level of trains that they have not reached yet. ORR suggested that they find the correct number using an asset-based approach. HS1 believe that the incentives come from regulatory review. They like to give their customers a choice, for example, offering their customers rapid response teams that may cost more money, but increase performance. I.e. HS1 want to work with their customers to be efficient. Eurostar would like to see what the sensitivity on the performance curve looks like and look at the unit cost efficiency rather than scope. HS1 stated that it was trying to achieve an efficiency and output package.

Question 4: Do you consider that the existing structure of charges is consistent with the Railways Infrastructure (Access and Management) Regulations 2005? Do you consider that the existing structure of charges creates efficiency incentives? / Are there other issues that we should take into account as we consider the operation of the escrow account arrangements?

HS1 wants to be transparent about maintenance and where money is spent. They are keen for operators to understand where the charges are coming from. Eurostar noted that HS1 bears the risk of overrunning in respect of the sum in the Escrow account which, in turn, may inadvertently create an incentive to minimize this risk in terms of the level of payments required to be made into the account. Eurostar would be prepared to discuss re-opener if the re-opener is policed by the ORR in terms of the use, release and safeguard of funds in the Escrow account. HS1 stated that it is keeping separate Escrow accounts for stations cost, and maintenance and renewals cost.

Question 5: Do you consider that there are gaps in the benchmarking programme put forward by HS1 Ltd? / Do you agree that the consultation document comprehensively covers those areas which should be considered as part of PR14? Are there any other areas which you consider we should be exploring? / Do you have any comments on the timescales set out for the programme? / Do you have any further comments that you wish to make with respect to this document, its content, or any other aspect of PR14?

The discount that HS1 offer to freight drives business for the freight companies. There was therefore concern that the discount may not continue. The Department for Transport (DfT) fund the discount and they said that they are looking into whether the discount can be continued to CP2. DfT and freight operators are keen to discuss it further – DfT said that the Rail Freight Policy Colleagues in the Department were currently considering the issue and would be engaging with stakeholders in due course.

HS1 then presented a group of slides about its proposed outputs for CP2 which is to continue the CP1 performance.

Charging

HS1 explained that the OM element of their charges is small revenue. Route charges are fixed until the start of CP2 and station charges have been discussed at a separate trilateral with ORR and DfT. HS1 stated that the stations and route reviews are in sync.

An effective PR14 process

HS1 wants to continue to be a high performing railway. HS1 wants to ensure that the customers trust that they are offering a good price and services. They want to be transparent so that customers know why and how they set charges. HS1 said that it is learning from the process of periodic review, NR(HS) and its European partners. This would further improve its performance in CP2 and CP3.

Current HS1 Operational Performance

In terms of operational performance HS1 are well within the target set by the concession agreement. They are driven by the service they want to provide their customers and what they fund so they continually maintain and improve their infrastructure. HS1 are aware that in 2040 they will have to hand back the network to the Secretary of State. HS1 are focussing on reducing major incidents to zero and they have developed several plans for this. For example, they are burying their cables deep underground to prevent theft. In terms of HS1's asset strategy they said they were on a learning journey and are working with its European partners and Network Rail. ORR noted that HS1's grip on asset management appears to be robust.

Demonstrating that we are delivering what customers want

HS1 wants to make sure that they deliver both what their immediate customers want but also what freight customers and passengers want. Southeastern commented that the more time their customers are on the high speed line the more benefit they will get. Eurostar monitor customer satisfaction as part of their commercial operations and, as this informs their thinking, confirmed that this would in turn inform their input into the PR14 process. HS1 agreed that going directly to the customers is not a great model and not one which it wants to follow.

Asset management suite

HS1 has been working on two main areas, handing back assets in 2040 and optimising asset management over the long-term. NR(HS) has been working with AMCL to get a greater understanding of how to go about this. HS1 want to make sure that they optimise their assets, from infrastructure to car parks, reducing costs where possible but not impacting on passenger services. They are working closely with NRHS to achieve this.

HS1 wants to introduce PAS55 and introduce a new asset management system. NR(HS) are working on whole life modelling and will be using this to test the potential opportunities for using risk-based approaches to managing its assets. HS1 said that it tends to suffer from big issues rather than day to day minor ones.

AMCL presented the asset management modelling work it has been doing for NR HS.

Network Rail discussed their work on finding the whole life costs of HS1 assets. They are testing several different options and stressed that what AMCL was presenting was a business tool and the decision would be made with regards to the actual evidence. The assumptions they have made need to be validated by peers.

Progress to date

AMCL is on track for progress, however the work to date has identified gaps in existing knowledge around HS1 assets that are now being addressed by NR(HS) and HS1. HS1 is happy with AMCL's feedback. AMCL has started training super users to build longer-term capability in NR(HS).

Asset Whole-Life Cost Profiles and Sample Model Outputs

AMCL introduced the concept of a typical profile of costs and risks over the asset lifecycle with a diagram taken from the Institute of Asset Management's 'Asset Management: An Anatomy'. This was explained to be the basis for the approach used in the models developed for NR(HS) for HS1 assets.

A detailed graph mapping cash flows over several asset life-cycles for the HS1 signalling system was then presented and discussed to show the sample model output. The greatest driver of cost over the asset lifecycle was seen to be the Capex (renewal) cost with expected peaks in overall expenditure every time the system is renewed. The remaining costs and benefits were seen to be fairly stable over the asset lifecycle.

A further indicative model output showing the NPV over 100 years for the asset types within the signalling system was also shared. This showed that the over this period, the greatest drivers of cost were 'Capex' for Interlocking – ITCS assets, 'Service Risk' for Communications assets and 'Safety Risk' for Points assets.

HS1 Vs. 'Classic' Rail

AMCL presented a slide on the challenges of modelling HS1 vs. 'Classic Rail' assets. Some aspects of whole-life cost are easier to analyse on HS1 because we know the installation dates and the infrastructure has been built using modern and consistent designs. The Professional Heads of each Asset Discipline have good knowledge of all assets on the route and there is close collaboration between asset groups. There have also been opportunities to use material developed elsewhere in the industry, such as safety risks which have been estimated using the RSSB model.

However, understanding of all of the aspects of whole-life cost is limited as some assets have a maximum of 5 years history. Hence it is difficult to predict degradation and model what the assets will be like in the future. There is limited failure data and renewal costs will be 'best estimates' rather than historic costs. Finally 'high speed' behaviours are different to 'classic' behaviours for some asset types so you can't cut and paste behaviours from other organisations due to the speed of the trains. These drawbacks mean that HS1 requires external support from peer group organisations to review inputs.

Next steps

The next steps for AMCL are to complete the model suite by the end of March and handover in April. There will then be on-going development during the CP2 planning process in terms of improving baseline assumptions, capturing data from external sources and testing options for asset strategies. Eurostar asked what the options for asset strategies are and what the range of choices is. AMCL said that any option can be modelled providing it is expressed in terms of changing the relevant parameters, for example, you can model a faster rate of

degradation and find out when assets need to be replaced. . The set of options to be modelled will be developed with NR(HS). ORR asked when HS1 will start replacing assets, and HS1's position on 'sweating' assets. DB Schenker asked if the model takes this into account. HS1 responded saying that the model does take into account the re-fit but they can only base it on what information they have today. AMCL has included the ability to model obsolescence in as a general obsolescence curve that, when applied, increases the cost of failure over time.

HS1 then went on to speak about the treatment of the Escrow account. HS1's Slides

Treatment of ESCROW account

HS1 explained that the escrow account turns the stream of lumpy renewal costs into a constant annual amount. This means that each year an operator pays a reasonable share of the costs. If HS1 take the money from renewals and put it into an Escrow account it is protected. The renewal amounts are driven by the asset management approach. Key drivers are the definition of maintenance vs. renewal, and the rate of return used. We have adopted a principles based approach to definitions. If HS1 believe that spending should be brought forward they will talk to ORR to make sure it is done well.

The rate of return is key, the higher the assumed return, the higher amounts in the Escrow account driven by return and the lower contributions required from operators. Current rate of return is assumed at 7% for CP2. With all other current assumptions unchanged, a rate of return of 0.5% could require an increased operator contribution of circa £2m p.a. over the life of the concession. The rate of return has a big impact on overall cost. The recent Lloyds Register report on HS1's asset specific policies concluded that the rate of return was likely too high, and that HS1 was underestimating the amount it would need for track renewals.

Identify efficient costs for CP2 / Benchmarking Approach

While delivering excellent service and maintaining long-term asset integrity, HS1 is clearly looking to deliver value-for-money. This is in everyone's interest as it improves the competitive position of rail. HS1 discussed how it is supplementing work on specific initiatives via bottom-up and top-down benchmarking work. HS1 noted that there is no single answer from benchmarking as CP2 is new and there is no history of data. HS1 then went on to explain the purpose of benchmarking – to feed into the proposed efficiency profile for CP2. Benchmarking will supplement the asset management analysis including life-cycle costing, out-turn information around efficiency initiatives in CP1 and specific efficiency initiatives for CP2.

Process for delivering efficient 5 YAMS plan

The agreed principle is to have the correct allocation of costs between route, stations and unregulated areas such as car parks and to have the correct allocation of maintenance and renewals costs. To do this, HS1 will be carrying out detailed planning, benchmarking and a stakeholder consultation in early June 2013.

HS1 route OMRC and EC4T charges - summary

Network Rail is the biggest purchaser of wholesale electricity and therefore EC4T is a big issue.

The table showed various costs, pass through costs, NR(HS) costs, HS1 costs and other third party costs. Eurostar noted that this process should include a consideration of the efficiency of infrastructure, such as the size of electricity distribution losses. Eurostar have put meters onto some of their trains to measure electricity usage.

HS1 asked if pass through cost are included in the OMRC. They commented that there has been huge saving on purchases that will filter through to customers directly. 6% has been shared with train operators already.

The cost structure was discussed. HS1 will continue to work with CBRE to lower pass through costs. They are also reviewing their insurance policies as insurers are becoming increasingly confident in HS1 due to very few claims. HS1 are pleased with its EC4T costs. HS1 are drafting paper on how they allocate staff time on certain routes to further manage costs. They are also outsourcing HR to lower costs. Consultants incur large costs but HS1 continue to try to use them efficiently. HS1 have also moved to a larger building.

DB Schenker asked how ORR will confirm that they are happy with the cost. ORR said that as they set the benchmarking they are able to analyse accordingly and use their own information as well as information from HS1's consultants.

Network Rail's Slides

Control Period 1

NR(HS) explained that the current annual fixed price for operations and maintenance is based on 2009/2010 pricing. They achieved this by outperforming the CP1 efficiency profile and NR(HS) are on target to achieve or better the CP1 exit cost. However, financial exposure or risk exposure is out of control sometimes due to construction defects or railway crime.

NR(HS) has improved its performance via various methods. It has reorganised and redefined its team. There is now a small operations team and care is taken to make sure that the right people are working at the right time. Significant supplier contracts have been redefined. For example, insourcing from Carillion resulted in cost efficiencies. Infrastructure has been improved and management has been improved. All outperformance has been reinvested. However despite these efficiency gains NR(HS) has been less profitable over the Control Period. There are further opportunities for NR(HS) in terms of aggregate buying, economies of scale and NR insurance arrangements.

CP2 (CP1 remainder) – Headline Plans

NR(HS) are a small organisation so reductions in cost can make a big difference. In CP2, NR(HS) hope to make even more savings in operations, infrastructure, business and other areas. NR(HS) are carrying out an ergonomic study looking at Ashford to ensure that they have people in the right place at the right time. Crime is low as NR(HS) have well buried cables and they have hard working contractors that are looking into getting the best price in the future for the same service. They are also looking into the level of services that they buy from NRIL to find efficiencies.

NR(HS) noted that they are looking at ways to save money on tunnel inspections as well, perhaps paying earlier than necessary in order to pay less. Overall NR(HS) expect strong

challenge from TOCs/FOCs/ORR/HS1 etc. They will be working with Interfleet to work through any questions raised and find cost savings.

Interfleet's Slides

Interfleet has been working to gain an understanding into the contracted arrangements between HS1 Ltd and other parties; HS1's characteristics, current operations and aspirations, its performance regime, its operational targets and its historic and current performance; its limitations on access and the implications for maintenance; in each discipline, the respective operating and maintenance strategies, methodologies, resources and constraints; and operation and maintenance costs, albeit at a very high level. They have been working in similar ways to AMCL and NR(HS).

Interfleet was impressed with how good the HS1 network is. NR(HS) continually seeks efficiency improvements whilst avoiding performance risk. NR(HS) also employs good people with considerable local knowledge and staff numbers have been stable for a long period. Staff are able to know their areas well because staff numbers and turnover are stable. The French engineering standards and processes have been used particularly successfully. Introducing changes slowly has reduced the risks involved.

A live costing exercise will allow changes to be made though out the year, this will allow costs to be monitored efficiently.

The tunnels and bridges are relatively conventional and therefore easy to benchmark. Track is relatively conventional and is therefore easy to benchmark. SMT is rather more difficult to understand as the assets are complicated but the assets have been managed well.

Interfleet noted that the ventilation design in tunnels seems excessive. They were uncertain how the design has developed. This has allowed plant growth. Interfleet recommended benchmarking against European tunnels and safety equipment they use and the safety management they apply.

Interfleet noted that the professional heads are all dedicated. The professional heads check that standards are being complied with. There could be an external company that could do this but they noted that as things are running smoothly this shouldn't be an issue.

Interfleet said that Ashford International had too many signallers, although they added that HS1 need to be risk averse in the roster.

Interfleet suggested using bottom up benchmarking. Standards drive frequency of inspections, maintenance outcomes – these can be managed and resourced and can give us an idea of how assets will perform with NR/HS1. Network Rail can then use its own cost model to compare with the emerging cost through CP1 and CP2.

Bottom up overseas benchmarking and comparing with Europe can be difficult. It will look at a Spanish high speed line example to try and help make some savings. DB Schenker suggested that freight avoidable cost need to be added to the benchmarking study.

HS1's Slides

The final step of the Periodic Review is to convert the total efficient costs into prices to be paid by individual operators. This process requires a forecast of traffic demand and a financial model, incorporating assumptions around the structure of charges and treatment of Escrow account. HS1 said that it has appointed Leigh Fisher to undertake the top-down benchmarking analysis.

Oliver Wyman slides

Oliver Wyman is looking at operator dynamics and working on demand forecasts. It is advocating transparency and seeking to understand competitive dynamics. There is a wider range of outcome for commuters who move to Kent than international users of HS1. At first international demand was overestimated.

Open access operators don't affect the picture. However freight is very price sensitive and it is not an easy market to operate in. Therefore Oliver Wyman will be interviewing shippers to understand why they are not using HS1 to transport freight.

HS1's Slides

Regulatory framework Items - Context

The regulatory framework is the set of rules governing interaction between parties, and provides incentives for organisations to do the 'right thing' and was recently consulted on extensively in the lead-up to sale. It now seems to be working well.

HS1 said that it is committed to meet all its customers on a monthly basis. The next industry stakeholder session is in June 2013 and it will be focused on HS1's benchmarking work.