

# **EDINBURGH AIRPORT RAIL LINK BILL COMMITTEE**

Tuesday 13 June 2006

Session 2

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## EDINBURGH AIRPORT RAIL LINK BILL COMMITTEE 4<sup>th</sup> Meeting 2006, Session 2

### CONVENER

\*Scott Barrie (Dunfermline West) (Lab)

### DEPUTY CONVENER

\*Mr Jamie McGrigor (Highlands and Islands) (Con)

### COMMITTEE MEMBERS

\*Mr Charlie Gordon (Glasgow Cathcart) (Lab)

\*Christine Grahame (South of Scotland) (SNP)

\*Iain Smith (North East Fife) (LD)

\*attended

### THE FOLLOWING GAVE EVIDENCE:

Marwan AL-Azzawi (Scott Wilson Railways)

Susan Clark (TIE Ltd)

Gary Coutts (Scott Wilson Railways)

John David Ede

Tom Hart (Scottish Association for Public Transport)

Trond Haugen (South-East Scotland Transport Partnership)

Colin Howden (TRANSform Scotland)

John Inman (City of Edinburgh Council)

Graeme Malcolm (West Lothian Council)

Paul McCartney (Halcrow)

Wendy McCorriston (West Lothian Council)

Andrew Mellors (First ScotRail)

Steve Montgomery (First ScotRail)

Neil Renilson (Transport Edinburgh Ltd)

Keith Rimmer (City of Edinburgh Council)

Alan Somerville (TIE Ltd)

David Spaven (TRANSform Scotland)

Peter Spinney (Association of British Drivers)

Bruce Young (Association of British Drivers)

### CLERK TO THE COMMITTEE

Jane Sutherland

### LOCATION

Committee Room 6



## Scottish Parliament

### Edinburgh Airport Rail Link Bill Committee

*Tuesday 13 June 2006*

[THE CONVENER *opened the meeting at 10:05*]

### Edinburgh Airport Rail Link Bill: Preliminary Stage

**The Convener (Scott Barrie):** I welcome everyone to the fourth meeting of the Edinburgh Airport Rail Link Bill Committee. We are at the preliminary stage and today we will continue to hear evidence on the general principles of the bill. We will focus on the main transport policy objectives, along with the issues of sustainable alternatives, congestion, interchange and rail operations.

The committee has several questions for the witnesses and I ask that all responses to questions be brief and focused. That will allow good progress to be made, while ensuring that all areas of interest to the committee are fully explored.

Members will be aware that we agreed to take oral evidence from Network Rail at today's meeting. However, following discussions, I have agreed that we will take that evidence on 20 June.

I welcome our first witnesses, who represent Transport Edinburgh Ltd and First ScotRail. Neil Renilson is chief executive of Transport Edinburgh Ltd. We had hoped that Bill Campbell, the Transport Edinburgh operations director, would be here, but he has another engagement. Andrew Mellors is the deputy managing director of First ScotRail and Steve Montgomery is operations and safety director. I welcome you all to today's meeting.

**Mr Jamie McGrigor (Highlands and Islands) (Con):** In what way does Transport Edinburgh believe that integration between Transport Edinburgh and the EARL services could be achieved?

**Neil Renilson (Transport Edinburgh Ltd):** Integration comes in a number of forms and I could summarise the first of them as integrated ticketing, or the ability to purchase a ticket from Penicuik to the airport, for example, taking the bus from Penicuik to Edinburgh and then the train out to the airport. There are various possibilities with interavailable ticketing.

The second form is the integration of marketing, publicity and information. That can be achieved

through the various existing integrated information systems such as Traveline Scotland, which is the pan-Scotland telephone inquiry information service for public transport; Transport Direct, which is that service's internet equivalent; and the publicity that is produced by the operators.

We then come to physical integration, or the ability to provide an interchange at Edinburgh airport between buses, trains and trams by locating them in close proximity, with the bus and tram on the surface and the rail underneath. Much the same happens at Heathrow, where the Piccadilly line station is directly connected to the bus and coach station.

Services will also be integrated through the ability to co-ordinate the train service with the tram service and the bus services to offer travel opportunities that are not currently available.

**Mr McGrigor:** Thank you. That was a very clear answer.

How will the need to comply with competition legislation impact on that integration?

**Neil Renilson:** The need to comply with competition legislation will inevitably restrict the ability to offer a fully integrated system.

**Mr McGrigor:** Can you elaborate on the different markets and needs that will be met by the tram and EARL?

**Neil Renilson:** Yes. The way we see it, the EARL project is of Scottish rather than local dimensions. I understand that, if constructed, EARL will give us the opportunity to provide direct train services to and from Edinburgh airport from every population centre in Scotland of more than 40,000 people, with the exception of Paisley, Ayr and Kilmarnock. In other words, there could be direct train services from Inverness, Aberdeen, Dundee, Perth, Kirkcaldy, Glasgow, Falkirk, Edinburgh and potentially even from as far down as Berwick-upon-Tweed and Newcastle upon Tyne.

By historical accident, Edinburgh airport happens to be located in the middle of a triangle of railways. That means that, by putting in three relatively short sections of track, we can link Edinburgh airport into the Scottish rail network in a way that—no matter what you did—you could never link Glasgow airport into the Scottish rail network. Glasgow airport is, so to speak, on the wrong side of Glasgow and on the wrong side of the river. If you were to try to afford to Glasgow airport the same rail services that are afforded to the rest of Scotland, there would have to be a huge amount of new line building. EARL offers the opportunity to make Edinburgh airport Scotland's airport in terms of public transport access, with everywhere other than places to the south of the

Clyde on the Ayrshire coast having either direct access or the potential for direct access, depending on what train services are routed through the airport.

The primary function of EARL is not to provide a link between Edinburgh city centre and Edinburgh airport, but to link the airport with all the places that I just mentioned. The tram, however, is a completely different kettle of fish. It has no national aspiration at all; it is purely a link between Edinburgh airport and Edinburgh city centre, linking on to such other places in Edinburgh as may be linked into the tram network. Inevitably, EARL will cater for some of the demand for transport between Edinburgh city centre and Edinburgh airport, but that is not its *raison d'être*. Its *raison d'être* is to link into the Scottish national rail network.

**Christine Grahame (South of Scotland) (SNP):** I was going to ask about integrated ticketing later. In your answer about competition legislation, you said that that would limit integration. Can you expand on that?

**Neil Renilson:** As it is framed, United Kingdom competition legislation places restrictions on the ability of transport operators to offer as much integration as they might wish to offer. For example, the basic presumption is that bus operators will compete with one another, not work hand in hand. Therefore, there are a number of very tight gateways that any integrated ticket product has to pass through before it is seen as something that is in the public interest, rather than an example of transport operators colluding to rig the market and exploit the passenger. The basic presumption is of competition rather than integration.

You are asking for specific examples. I will use a bus scenario to explain the situation, as that is probably easiest. Let us say that there is a bus service between Inverness and Aberdeen that happens to be operated by different bus operators in Aberdeen and Inverness. One might expect the two operators to work together to provide a combined headway, a combined timetable and joint ticketing. That is not the presumption on which the competition legislation is based; the presumption in the legislation is that both operators should provide the service and compete with each other. It is clearly absurd to suggest that when the last bus out of Aberdeen reaches Inverness at midnight, it should turn round and run empty back to Aberdeen because the Aberdeen-based operator does not have a garage in Inverness, but that is the way in which the competition legislation is framed.

However, there are ways in which operators can put forward a case, have it reviewed and gain exemptions. There is also something called the

block ticketing exemption, which allows for integrated ticketing between different operators. However, it is by no means straightforward.

**Mr Charlie Gordon (Glasgow Cathcart) (Lab):**

I want to pursue the point in relation to combined bus and rail tickets. You referred to competition legislation, but I have in mind the Transport Act 1985, which brought us the joys of a deregulated bus market in this country. I remember combined bus and rail tickets being used on the Strathclyde network 20 years ago. They quickly disappeared after the introduction of the 1985 act. You are promising us combined bus, rail and tram tickets in EARL, but is it not possible that other bus operators could object to that arrangement under the 1985 act?

10:15

**Neil Renilson:** The simple answer to your question is no.

**Mr Gordon:** You do not feel that they could object.

**Neil Renilson:** Not as long as the combined ticketing proposal met the Competition Commission's requirement, which is that the scheme should be open to all. In other words, if EARL were to attempt to make an arrangement with only one bus operator, such as First, and Stagecoach, National Express and Lothian Buses were not allowed to participate, that would be unfair and would fall foul of the 1985 act. If, however, an arrangement in which every bus operator could participate were arrived at, that would be seen to be fair and equitable and could be made to fit requirements.

Integrated rail and bus tickets exist; they did not all die in 1985. For example, the Strathclyde ZoneCard still exists and in the east of Scotland, we have the one-ticket arrangement whereby somebody can buy a ticket that is valid on rail between North Berwick and Edinburgh and on Lothian, Stagecoach or First buses for onward travel from Edinburgh to, say, Penicuik. Combined tickets are possible and they exist.

**Mr Gordon:** I will come back to the Strathclyde ZoneCard in a minute as you mentioned it but, staying with this point, I wonder how the involvement of the tram operator would be ensured in an integrated scenario. Would there be yet another line of bilateral negotiations similar to those on through ticketing between EARL and the different bus companies?

**Neil Renilson:** Yes, although it would be multilateral rather than bilateral.

**Mr Gordon:** The Strathclyde ZoneCard is still a viable product, but it is perceived by many commuters as rather expensive because the

different operators who participate in the scheme insist on regular price rises while aggressively marketing only their company's season ticket products. That illustrates the difficulties of through tickets that combine different commercial operators, which would rather capture their own market share than concentrate on the smaller benefits of an interoperator ticket. Is that a fair analysis?

**Neil Renilson:** The situation that you describe is one perspective. If somebody pays for a ticket that gives them greater choice and opportunity, it is reasonable that it should be priced at a premium to a ticket that gives them less opportunity and choice.

To use the previous example of someone who travels between North Berwick and Edinburgh and wishes to restrict their travel opportunity to travelling only on the bus, I assume that a First season ticket would be their cheapest option. If they wish to restrict their travel opportunity to travelling on the train only, I assume that a ScotRail season ticket would be more expensive than the bus season ticket. If they wish to have the choice of both modes and use only one ticket, it will be at a premium to the rail season ticket. That is not unreasonable. Someone who wants a season ticket to travel on the buses and the trains rather than just on the buses will expect to pay a bit more for the choice of both modes.

**Mr Gordon:** Your analysis describes the current situation, but you understand that some people would argue that an intermodal flexible ticket ought to be less expensive than an ordinary single-mode season ticket if we are to achieve a modal shift from car to public transport.

**Neil Renilson:** It is counterintuitive to me that the multimodal ticket should be cheaper than the single-mode ticket.

**Mr McGrigor:** Further to that point, in what way will EARL impact on future tram profitability given that the tram network that will operate initially has been reduced from that originally proposed?

**Neil Renilson:** As I said earlier, the primary objective of EARL is to provide national rail links to Edinburgh airport. The primary objective of the tram is to provide local links. Inevitably, some use will be made of EARL between the city centre and the airport, which will reduce passenger loadings on the tram below the level that they would reach if there were no EARL. If the only choice of transport between the city centre and the airport was between bus and tram, the tram would carry more people than if the choice was between bus, tram and EARL—that is self-evident.

If EARL is built and we have a transport interchange at Edinburgh airport, people will have the opportunity to use that interchange for

journeys that do not involve flying to and from the airport. For example, at the moment, if someone wanted to travel from Dunfermline to the Heriot-Watt University campus at Riccarton, they might get the train from Dunfermline to Haymarket and then change and get a bus out to the campus. If EARL is built, they might get the train from Dunfermline to Edinburgh airport and then get a bus to the campus, which would be a shorter journey. A transport interchange would have been created on the west side of the city. That might have a modest positive impact on ridership on the tram to offset some of the loss that will occur if EARL is built. The financial and operational modelling for the tram system is based on two scenarios—with and without EARL. We are looking at both options.

**Mr McGrigor:** Which would provide the shorter journey time, in your opinion—tram or rail?

**Neil Renilson:** My understanding is that the projected travel time by EARL from Edinburgh airport to Haymarket is 11 minutes. I defer to First ScotRail on that.

**Steve Montgomery (First ScotRail)** *indicated agreement.*

**Neil Renilson:** I am advised by First ScotRail that the EARL travel time from the airport to Waverley would be 14 minutes. The tram run-time would be 26 minutes.

**The Convener:** You gave the example of a journey from Dunfermline to Heriot-Watt University. EARL alone would not deliver that; that would be dependent on the BAA transport study recommending bus links from the airport. It would not be EARL that delivered that; that would require another piece of the jigsaw that we do not have before us just now.

**Neil Renilson:** Without EARL, there would not be a railway station at Edinburgh airport, so there would not be the option to change from train to tram or bus at Edinburgh airport.

**The Convener:** I understand that. However, without knowing what will come out of the BAA transport study, we do not know whether that journey would be possible.

**Neil Renilson:** If you say so. I defer to your superior knowledge of the matter.

**The Convener:** I was hoping that you would say either yes or no. We have been struggling with this in the evidence that we took last week and that we are taking today.

**Neil Renilson:** I would need to refresh my memory. I did not do my revision on the BAA transport strategy before I came along this morning. My apologies.

**The Convener:** That is not a problem.

**Mr Gordon:** Given the fact that the train would travel much more quickly than the tram between the airport and Waverley, could that not lead to a shift from tram to train, thus reducing the profitability of the tram?

**Neil Renilson:** That situation is possible. However, the tram and the train would not serve exactly the same markets. They would both transport people from the city centre to the airport, but the tram would serve many intermediate points that the train would not—for example, Edinburgh Park, the Gyle centre, the Royal Bank of Scotland at Gogarburn and Murrayfield stadium. At those intermediate points, the tram would be an option but rail would not be.

The other issue that has to be faced down is the fact that, geographically, Waverley is in a hole in the ground. If someone has several suitcases, they may wish to end up at street level in Princes Street, not down in Waverley station. Similarly, someone may be going to the west end, somewhere that is inconvenient for Haymarket or Waverley. They might be staying at the Caledonian hotel—mind you, if they were staying at the Caledonian hotel, they would probably go there in a limo. The point that I am making is that the tram would have a lot more stops than the train.

**Mr Gordon:** But trams and a couple of heavy suitcases do not make a good mix, do they?

**Neil Renilson:** Do trains or buses and a couple of heavy suitcases make any better mix?

**Mr Gordon:** Well, as you know, some rolling stock is designed specifically to cater for that. The Heathrow express is an example.

**Neil Renilson:** Absolutely, and on the blue airport buses that run between the city centre and the airport, something like 50 per cent of the downstairs is luggage racks for exactly that reason.

**Mr Gordon:** You have anticipated my next question. What effect will EARL have on the current bus link to Edinburgh city centre?

**Neil Renilson:** This is a variation on the answer that I gave to the previous question. The bus serves a third market. EARL and the tram are an irrelevance as far as the Royal Scot and Marriott hotels out at the Gyle, the Holiday Inn hotel at the zoo and the great phalanxes of private hotels and guest houses that line the road out through Wester Coates, Murrayfield and Corstorphine are concerned. The tram would be away over running down the railway line, as would the train. The bus service would still run for intermediate traffic, but at a reduced frequency to its current operation. At the moment, the blue express bus runs every 7 minutes. It might be reasonable to assume that the

frequency will drop to every 15 minutes, as a large chunk of the traffic from the city centre to the airport will move off the bus on to either EARL or the tram. The buses will still run, but there will not be so many of them.

**Mr Gordon:** Given the fact that both the tram and EARL could be constructed over similar timescales, what concerns does your company have that the cost of constructing the tram could be driven up by the limited capacity in the construction industry?

**Neil Renilson:** It is a concern that we will have two projects going on more or less simultaneously in a similar area, but it relates more to the national demand for construction. Projects such as the London Olympics are likely to have a huge draw on the construction industry on a national basis. If all that was happening was that EARL and the tram were being built at the same time, I would be relatively relaxed because, in the overall context of major construction projects, they are not huge projects. It depends to a greater degree on what happens in the national market for major construction projects.

**Mr Gordon:** Given your experience of public transport passenger numbers, what are your views on the patronage levels that are being attributed to EARL?

**Neil Renilson:** We are looking forward five or six years, and it all depends on whether anticipated growth and development take place as planned. It is very much the same question with the trams. If the anticipated growth and development in air travel take place, the figures ought to be achievable. If the growth in air travel exceeds predictions, for whatever reason, we will be in a more positive position regarding the projections. If it drops back, we will be less positive about the projections. It is for the transport modellers and crystal-ball gazers to predict what will happen to airport and airline patronage over the coming years. The growth rate at Edinburgh airport over the past five years has been significant, as you are well aware. The projections for EARL are based on BAA's mid-range projections, not the top-of-the-range projections. That is probably the most comfortable position that one can be in. However, the patronage predictions for this kind of predict-and-provide project are dependent on predictions of air travel growth and development and demand for travel to and from the airport.

10:30

**Iain Smith (North East Fife) (LD):** The promoter has indicated that by 2026 EARL will generate 4.96 million trips. Given their experience with train passenger numbers, will the witnesses

from First ScotRail comment on how realistic that prediction is?

**Andrew Mellors (First ScotRail):** We know from running the rail franchise that a punctual high-quality rail service attracts more people. If the infrastructure is fit for purpose to run high-quality trains on time, the projections are probably realistic.

**Iain Smith:** First ScotRail is likely to be the main operator of services at the station. Do you have any operational concerns that you need to work out with the promoter?

**Andrew Mellors:** We need to be aware of two main issues. First, as I have indicated, rail passengers want and are attracted by good performance. Secondly, if the project goes ahead, the capacity of the infrastructure, rolling stock and support facilities such as maintenance depots must be appropriate if we are to deliver on our commitment to improve performance on Scotland's railways.

**Iain Smith:** What type of train and infrastructure will provide flexibility in the timetabling and capacity of the EARL service?

**Andrew Mellors:** As you will appreciate, with rolling stock, there is a trade-off between seating capacity and other facilities such as luggage space. Moreover, under the Rail Vehicle Accessibility Regulations 1998, the provision of wheelchair spaces, wheelchair-accessible toilets and so on is mandatory. New rolling stock must not only meet those statutory requirements but have the flexibility to cope with the expected passenger flows. For example, although lots of people might travel at peak periods, the trains must also have enough luggage storage. It is a bit of a juggling act.

As far as the overall network is concerned, a number of services will be rerouted via the airport as a result of EARL. Given that and proposed rail developments such as the Airdrie to Bathgate link, which will mean four trains an hour from Bathgate into Edinburgh, we have to ensure that the network is robust enough to cope with the additional services and that we are able to run a robust and reliable timetable. In that respect, the choice of rolling stock and any potential enhancements to the existing infrastructure will be key considerations.

**Iain Smith:** Because of EARL, some services—for example, those on the Edinburgh to Fife line—will take up to three and a half minutes longer. As the main provider of rail services, will that have any impact on service provision? Will you incur any financial penalties under your current franchise agreement?

**Andrew Mellors:** The timetable is still subject to discussion. However, we will have to finalise our

rolling-stock strategy before we can find out whether journey times will be affected. In putting together the timetable, First ScotRail and other stakeholders will need to be aware of the effect on end-to-end journey times for people who do not want to go to Edinburgh airport. The industry must be mindful of that.

Under its franchise agreement, First ScotRail is contracted with Transport Scotland to deliver a particular level of service on all routes in Scotland. The construction of the Edinburgh airport rail link would trigger a franchise change under the agreement, which would be subject to negotiation between First ScotRail and Transport Scotland.

**Iain Smith:** It has been suggested in some evidence that we have received that delays in train services that are diverted through the airport station could have serious knock-on effects on other services. How will you act as an operator to minimise any potential delays that may occur?

**Andrew Mellors:** In our submission, we noted that the key issue was to ensure that the new and existing infrastructure was sufficiently flexible to deliver a robust timetable with a degree of resilience. I have already mentioned specifically the proposal to double the number of trains that come into Edinburgh from Bathgate, which needs to be considered. The more trains that are operating on the network, the greater is the propensity for delays when things go wrong. As an industry, we need to ensure that if the rail link goes ahead, we consider the implications not just for the new infrastructure but for the existing network, to ensure that it can operate as robustly as possible. I refer to matters such as physical layouts at junctions and signalling headways, to ensure that we have a timetable that is robust, can be delivered and can tolerate the minor perturbations that sometimes occur when one is running a complicated operation.

**The Convener:** I have a question about the capacity of Waverley station, which is one of the main inhibitors of growth in passenger services. Because Waverley is almost at capacity, increasing or retimetabling any services may have an impact. Is that a concern for you?

**Andrew Mellors:** The Edinburgh Waverley development scheme that is under way at the moment will result in some timetable changes for a 12-month period from December this year. The upshot of the scheme is that there will be increased capacity at the west end of Edinburgh Waverley. That will support future schemes, such as the reopening of the Airdrie to Bathgate line and the doubling in the number of trains from Bathgate from two to four per hour. It must be recognised that, even with the work that is being done at the moment, there will be a finite level of capacity.

**The Convener:** My next question follows on from a question that Iain Smith asked. Are the indicative services that the promoter has proposed achievable, especially for stations north of Edinburgh? I am talking not just about services to Fife, but about services further afield—to Aberdeen and Inverness, for example. The proposal is being sold to us not just as a transport link for Edinburgh but as a transport link for the whole of Scotland. Will you be able to provide the level of services north of Edinburgh that the promoter has suggested can be achieved?

**Steve Montgomery:** Andy Mellors made the point that, as long as there is sufficient line capacity and the rolling stock strategy is laid out, we will deliver what we believe is reasonable. The issue is the provision of the infrastructure and rolling stock that will allow us to deliver.

**The Convener:** How will that come about, if we go ahead with the airport link and the line is built? What negotiations will take place between First ScotRail, the other train operators and the owners of the rail infrastructure to ensure that we do not have a station just sitting there while we decide that, for operational reasons, it is better to divert trains going across the Forth rail bridge through South Gyle?

**Andrew Mellors:** Under the existing arrangements in the rail industry, Network Rail is the custodian of the timetabling process. It identifies the actual capacity of any particular section of line. On that basis, and taking into consideration issues such as minimum headways between trains and what we call margin times at junctions, the different operators put together timetable bids that are submitted to Network Rail. Network Rail then validates those bids to ensure that the timetable is workable and offers timetable access slots to the individual train operators, who take them up with their own resource plans for rolling stock and train crew.

**The Convener:** I realise that you do not have this option at the moment, but on the Fife services, for example, the train goes from Haymarket to Dalmeny via South Gyle. With the new rail link, trains would have the option of going from Haymarket to Dalmeny via Edinburgh airport. How do we know that you will do that and will not just continue to run your trains up and down the east coast main line because that would be shorter or because you do not want to use the airport for operational reasons?

**Andrew Mellors:** Our franchise agreement specifies what is called a service level commitment. When FirstGroup bid for the ScotRail franchise, our resource plans were geared around delivering that particular level of service.

As part of the franchise change proposal that we would seek to negotiate with Transport Scotland,

an amendment would be made to the service level commitment that would mean that Transport Scotland would be able to outline the particular services that it wanted First ScotRail to run as part of the basic specification for the franchise. Over and above that, were additional paths to be made available and were there a commercial case for doing more, First ScotRail would be able—subject to network capacity—to approach Network Rail for additional train paths. However, the core train service is as specified in the service level commitment that forms part of the franchise agreement.

**The Convener:** We are not necessarily talking about increased train paths; we are just talking about diverting some trains while others continue the way they are going at the moment.

**Andrew Mellors:** It is precisely that sort of detail that is contained in the service level commitment—the frequency of trains on individual lines of route and the stopping patterns thereof.

**Christine Grahame:** When is that service level commitment up for review? You talked about amending the contract, so when would that be?

**Andrew Mellors:** The franchise agreement contains the ability for either First ScotRail or Transport Scotland to initiate a change proposal at any point during the life of the agreement.

**Christine Grahame:** Surely that must be a bilateral agreement and it could not be done by just one of the parties.

**Andrew Mellors:** A negotiation process follows a franchise change being proposed.

**Mr Gordon:** Therefore, if someone builds a new piece of rail infrastructure, First ScotRail does not have to run any trains over it unless an agreement is negotiated.

**Andrew Mellors:** The franchise agreement contains provisions on reasonable endeavours. A financial model in the franchise agreement gives an indication of the level of incremental cost for such things as operating costs for rolling stock, fuel charges, track access charges and so on. That would be applied if any variation to the service level commitment was requested.

**The Convener:** The main purpose of most of the services that come into Edinburgh at peak hours—in the morning and evening rushes—is to get people in and out of Edinburgh. If trains were diverted via the airport for operational reasons, how much would the increase in journey time displace passengers to other modes of transport such as private cars or other means of public transport? Three-and-a-half minutes does not sound like very much, but if it is added on to some people's journey time, it might be enough to tip them over and make them use something else. Are you concerned about that?

10:45

**Andrew Mellors:** We must be mindful of that, as I have said. Accordingly, I expect that, when timetables are put together, we will take due cognisance of the market for going straight into Edinburgh and will provide for the shortest possible journey time. When we put the timetables together, it will be important for us to consider the markets that we want to meet, and that might be specific to certain times of day. On certain lines of route, we will run additional trains and provide additional capacity for the morning and evening peaks, and it is conceivable that we might end up with some trains running via the airport and other trains running directly, so that people get the benefit of the journey times that they currently enjoy.

**The Convener:** If the idea is to have a transport interchange at the airport, which is what we were told last week, it is important to have frequent services. There is no point in ending up at Edinburgh airport to find that the train you hoped to catch is not coming through the airport and that you have to wait another half hour, which would not give you the time saving on your journey. That is equally important for airport needs. There are a large number of early morning flights, and it does not appear that the current train timetable would be able to get people to the airport in time to allow for check-in times and so on. For example, people would not be able to get the first shuttle down to London if they took the train, because the trains do not start early enough. If the airport link were built, would it be possible to have earlier trains than those that currently run from other parts of Scotland?

**Andrew Mellors:** Again, it is rather like putting a timetable together; Network Rail has a set of rules to determine the hours during which we can run trains. You will appreciate that the infrastructure needs maintenance from time to time, so Network Rail's rules allow for periods of time, mainly overnight, when the infrastructure is closed and available for maintenance work to take place. Generally, those rules reflect the service level commitment that we have as part of our current franchise agreement, so the first trains of the day are usually around 6 o'clock in the morning and the Network Rail period during which maintenance takes place finishes around 5 o'clock in the morning.

Should we wish to run any earlier trains, or indeed trains later at night, it is likely, depending on the particular line of route, that those trains would impinge on Network Rail's current time for maintaining the infrastructure, so that would require negotiation under our track access agreement—which is the contract between the train operator and Network Rail, as the custodian

of the infrastructure—to enable us to access the infrastructure for longer periods at a time. That might cause a step change in the track access costs that the train operator is exposed to, because Network Rail would have less time to undertake its routine maintenance, which might in itself introduce some inefficiencies, and that would have to be reflected through the access charges that the operator pays.

**The Convener:** Mr Renilson gave the example of Dunfermline. The first train from Dunfermline in the morning is at 6.55. It is only 11 miles from the airport, but you cannot get a plane much before half past 8 with that sort of timetable. If people wanted to catch the very early flights, rail would not be a possibility with the current timetable.

**Andrew Mellors:** There are certainly possibilities for improving on the level of service that is currently offered without impinging on Network Rail's no-trains period during the night, but that would require amendments to our service level commitment under the franchise agreement. I am sure that members will appreciate that we do not keep any trains at Dunfermline overnight. They are generally kept at maintenance depots or at other locations where vital servicing and cleaning work can be undertaken, so there is the logistical issue of getting trains positioned to start the service first thing in the morning, which will also need to be factored in when constructing a timetable.

**Christine Grahame:** How will EARL service the destinations to which inbound passengers choose to travel? I am talking about people who arrive at the airport.

**Andrew Mellors:** As was said earlier, under the EARL proposal, direct links will be provided from Edinburgh airport to most of the major conurbations in Scotland. We expect that the timetable and services that are proposed will meet a reasonable proportion of onward journey requirements.

**Christine Grahame:** Will you list those major conurbations? At the moment, which ones will be served? You have said that service level agreements would have to be altered to accommodate other destinations.

**Andrew Mellors:** Our express network connects Edinburgh to places such as Dundee, Perth, Aberdeen, Inverness, Stirling and Glasgow. We would expect the majority of services from Edinburgh to those locations to be routed via Edinburgh airport.

**Christine Grahame:** You said, "the majority of services." What percentage of them will serve the airport?

**Andrew Mellors:** As long as the timetable is still subject to discussion, we cannot confirm that figure. We currently run four trains an hour on the Edinburgh to Glasgow via Falkirk High route, two of which could possibly go via Edinburgh airport. The percentage is likely to be higher on the other routes.

**Christine Grahame:** What financial contribution, if any, does First ScotRail envisage making towards the cost of the project?

**Andrew Mellors:** The franchise agreement has provisions in it under which any financial benefit that First ScotRail could reasonably expect to receive through additional fares income would be offset against any claim for additional operating costs that we would otherwise make as part of the scheme, so there is a no net loss, no net gain-type approach.

**Christine Grahame:** It does not sound as if you will be contributing very much to the scheme. Am I right?

**Andrew Mellors:** The initial seven-year franchise period runs until 2011, although a three-year extension is possible. Under the proposed timescales, it is likely that the rail link will happen towards the end of our franchise period.

**Christine Grahame:** I understand.

On 6 June, the promoter stressed the benefits that EARL would bring by catering for the short-term break market and the business market. How will the frequency of EARL services and the destinations to which they will run fit in with the existing short-break and business markets in Scotland? You have said that EARL will not be just an Edinburgh link, but will serve other cities as well.

**Andrew Mellors:** I think that it will meet the vast majority of those requirements.

**Christine Grahame:** What are those requirements? How would you define a short-term break? Is it a break for two or three days?

**Steve Montgomery:** People will be able to decide where they want to travel in from to embark on a short break. The Edinburgh airport services that we provide will meet the needs of those markets. For example, someone from Dundee might want to fly out to destinations such as Prague and Barcelona from Edinburgh airport. We will also meet the needs of the long-haul market.

**Christine Grahame:** I was thinking of the opposite scenario—of people who will fly into Edinburgh. We want Scotland as a whole to benefit from EARL through people coming here to spend their money.

**Steve Montgomery:** That is the reverse situation. All the major locations will be served by

airport services. We have mentioned all the locations to which rail services will go.

**Andrew Mellors:** In our written evidence, we stated that we believed that the scheme would have a positive effect on tourism and growth.

**Christine Grahame:** I want to move on to integrated ticketing. I think that I am correct that Mr Renilson said that the multimodal ticket would be dearer and that there would be a premium on it because people would get a better service than they would do if they bought several single tickets.

**Neil Renilson:** Yes—I said that that is the current experience nationwide. A bus-only season ticket costs less than one that is valid on bus and rail.

**Christine Grahame:** So that was a fair summary of what you said.

**Neil Renilson:** Yes, absolutely.

**Christine Grahame:** Do the ScotRail witnesses believe that integrated ticketing will work? Aside from the anti-competitive stuff, it will possibly be dearer for people, given what we have just discussed.

**Steve Montgomery:** It is far too early for us to comment on ticket pricing and on the potential benefits. We would hope to open up integrated transport with any scheme that emerges in the future. However, we cannot honestly comment on the ticket prices at this stage.

**Christine Grahame:** What integrated ticketing does ScotRail operate now?

**Steve Montgomery:** We do the ZoneCard in Strathclyde, as well as one-ticket and plusbus. There are a number of areas where we do that.

**Christine Grahame:** Is it dearer that way compared with buying tickets separately on the services that you operate?

**Steve Montgomery:** If someone is only travelling once by rail from one location to another and then adds on one bus fare, integrated ticketing is dearer. However, it is not as dear as buying tickets for two separate journeys comprising bus to rail station and rail station to rail station. There is a saving for people in that instance.

**Christine Grahame:** You might have already answered this, but are your current ticketing systems fit for expansion? Do you have procedures in place to do ticketing in a bigger way?

**Steve Montgomery:** We have introduced new ticketing systems over the past few months in ScotRail stations, which gives us greater capabilities for more integrated ticketing. The systems to allow that are in place.

**The Convener:** There are no further questions, and if there are no other points that the witnesses feel that the committee has not covered, I thank them very much for their helpful evidence this morning.

10:57

*Meeting suspended.*

10:59

*On resuming—*

**The Convener:** The witnesses on panel 2 represent West Lothian Council. They are Graeme Malcolm, who is the transportation manager, and Wendy McCorriston, who is the planning officer. I hope that we will be joined later by Keith Rimmer, who is the head of transport at the city development department of the City of Edinburgh Council. He is not here at the moment, but I hope that he will join us.

I begin by asking the witnesses to summarise the benefits that the airport rail link will bring to West Lothian businesses and communities.

**Graeme Malcolm (West Lothian Council):** Good morning, convener.

As members know, West Lothian has one of the fastest growing populations in Scotland. It also has one of the youngest populations in Scotland. In West Lothian, we pride ourselves on economic delivery, which is one of the key drivers for the Scottish Executive, and we believe that the EARL project will bring a number of benefits. There will be opportunities for the local workforce not only during the construction stage but later, when the line opens.

For West Lothian, the direct benefits of the service will be limited. The only services that will link directly with the airport will be through Linlithgow. We hope that timetabling of the line will allow West Lothian residents to benefit from the opportunities that the airport rail link will create. However, the council as a whole supports EARL as part of the general improvements to rail infrastructure in Scotland. As members know, we are heavily involved in the forthcoming Airdrie to Bathgate rail link. We think that the two projects will complement each other.

**The Convener:** I have some technical questions about your submission. You mention the proposed waste management strategy in relation to the Winchburgh area. Will you update the committee on what West Lothian Council believes to be the situation in relation to the haul road adjacent to the Union canal and any other issues that result from that?

**Graeme Malcolm:** In our submission, we noted that figure 2.30 in the environmental statement

suggests that there will be a haul road adjacent to the Union canal. We received TIE's response to our point yesterday. It appears that there was a graphical error and that that haul route is merely indicative. We were surprised that the other haul routes are clearly on existing roads but that the haul route at Winchburgh was shown to run adjacent the Union canal, which would have been cause for serious concern. If provision will be made for a haul route that goes straight on to the B8020, which is known locally as the Beatlie road, to take haul traffic towards the A904 and on to the M9, that would be considered a suitable construction route.

However, there would still be some difficulties with that route. Notably, the bridge that the rail link will cross at Beatlie road has a height restriction and there is no footway on either side. A large number of heavy goods vehicle routings are planned in connection with EARL—vehicles will carry 200,000 tonnes over three years, so some 65,000 to 70,000 tonnes per annum will be taken out of the Winchburgh area. That equates to a 20-tonne lorry moving every two minutes in a small community. We have concerns about how that construction traffic will be managed. Improvements could be made to the Beatlie road bridge, which would help with traffic movements in terms of public and community safety.

**The Convener:** You may know that the committee visited the proposed route, so we know a bit about that area, although I am not sure whether any of us is acquainted with it directly. To give us some idea of the volume, how many lorries would that equate to per day?

**Graeme Malcolm:** The promoter's estimate of traffic movements in the area is that there will be 32 heavy goods vehicle movements per hour during the operation period, which would be empty trips in and full loads out.

**The Convener:** What would the necessary improvements that you foresee to the Beatlie road cost? How realistic would it be to upgrade the road to make it satisfactory?

**Graeme Malcolm:** A new superstructure is going in and, as part of the bill, the promoter is already making adjustments to the superstructure. I would not like to estimate the substructure costs of widening, but—notwithstanding the fact that there will be vehicle movements for three years on a fairly tight width of carriageway—it would seem that once the bridge deck has been lifted off, it is a more straightforward operation. For the sake of general safety in operations for the scheme itself, widening may be worth further investigation.

**The Convener:** You said that you had been contacted by the promoter only yesterday about the anomaly around the Union canal. I presume

that discussions will be on-going with the promoter over the next few weeks and months about the very issues that you have just raised.

**Graeme Malcolm:** Yes. The promoter has suggested that the code of construction practice that has been submitted as part of the bill is an evolving document; it is only a draft. It will evolve as the bill, if successful, is given royal assent and the work goes out to tender. As part of that, the promoter will work with the local authority on ensuring that the detail of the code of practice is appropriate. There have been discussions with the local community on that. Winchburgh has a history of HGV impact—a landfill site operated for a number of years to the west of the town, although it closed down recently. As you will understand, HGV routing is a sensitive issue for the community.

**The Convener:** Do you wish to make any comments about the proposed code of construction practice?

**Graeme Malcolm:** In general, it is a good starting point. Last autumn, we offered to engage on developing it. Obviously, the code of construction practice is just one element of the bill's submission, so we hope that there will be an opportunity in the coming months to work with the promoter on developing a code that is acceptable to the authority and to the community.

**Mr McGrigor:** Is there any action that you would like the committee to take in relation to the environmental statement and the proposed mitigation measures?

**Wendy McCorriston (West Lothian Council):** A severe impact on two properties in the area has been identified by the promoter. We want to ensure that the code of construction practice leads to mitigation of noise and construction traffic impacts on those properties, but we would also like to be fully involved in the routing so that we can ensure that the wider community is not also adversely affected.

**Mr McGrigor:** What action would West Lothian Council like the promoter or the committee to take in relation to Hopetoun woodland?

**Wendy McCorriston:** Hopetoun woodland and the designed landscape for Hopetoun House lie to the north-east of the route. Woodlands that lie on either side of the Union canal and the rail track are part of the original ancient woodland. The area is also part of the central Scotland forest initiative, under which we aim to improve and manage woodland areas. A development proposal at Winchburgh includes significant new woodland planting, so we would like to ensure that any replanting along the EARL route is done in co-ordination with the other bodies that are involved in new planting in the area.

**Mr McGrigor:** Will you elaborate on West Lothian Council's concerns about the capacity and sustainability of the waste disposal sites that are listed? Do more local sites exist?

**Wendy McCorriston:** Some sites in West Lothian may be suitable; we have not assessed individual sites. The issue with the information that accompanied the bill was that the sites were numbered but not identified. The promoter advised us that that information came from the Scottish Environment Protection Agency. At least one of the sites is in West Lothian, but we could not identify its location or name, so we require clarification about that location. We might be able to work with the promoter to consider more localised sites in West Lothian.

**Mr McGrigor:** About what assumptions in the bill does the council have concerns and what action would the council like the committee or the promoter to take as a consequence?

**Graeme Malcolm:** In relation to waste?

**Mr McGrigor:** Yes—and in relation to anything else.

**Graeme Malcolm:** We said in our submission that we are concerned because it appears that a wide range of waste disposal sites throughout the central belt will be used, which would involve hauling waste long distances. The council thinks that disposing of vast quantities of material by lorry throughout central Scotland raises an environmental issue and could have a cumulative impact. As we said, we had difficulty locating all the waste disposal sites from the information that was available at the time. One of our planning officers has quite good knowledge of waste disposal sites in West Lothian and Fife and felt that it might be appropriate for the committee to consider the issue further with the promoter.

**Mr McGrigor:** Will you elaborate on the council's proposal that the bill should not preclude a station at Winchburgh?

**Graeme Malcolm:** That is a key issue for West Lothian Council. The committee will be aware that the Edinburgh and Lothians structure plan, which the Scottish ministers approved, included not only EARL, but the aspiration for a Winchburgh station. That connection was made because of the requirement for West Lothian Council to deliver about 25,000 new houses in the next 10 years.

The council is currently engaging in a local public inquiry on the West Lothian local plan, which includes a number of core development areas, one of which is in the Winchburgh area. The size of that core development area is in the region of 3,450 houses, plus associated employment areas, community facilities and so on. To make that work sustainable, the council has

considered having not only a new junction on to the M9 but also the provision of a station at Winchburgh. However, as the City of Edinburgh Council discovered in relation to Edinburgh Park station, it is difficult for a local authority to drive the establishment of a new railway station. A cohesive approach is needed and the council has to work with the rail industry and the developer for the area.

West Lothian Council supports EARL, but we hope that the committee will keep in mind the council's aspiration for a station at Winchburgh. We know that that is not part of the bill, but we would like members to consider that possibility, following the work that will be done on EARL.

**The Convener:** Those were all our questions for West Lothian Council. We have not yet been joined by Mr Rimmer from the City of Edinburgh Council, so we will suspend for five minutes in order that we can discover his whereabouts.

11:17

*Meeting suspended.*

11:26

*On resuming—*

**The Convener:** I reconvene the meeting. We are joined by Keith Rimmer from the City of Edinburgh Council. I understand, Mr Rimmer, that you have just rushed from another meeting. I hope you have caught your breath—thank you very much indeed.

We are ready to start questions for the City of Edinburgh Council. Who wants to go first?

**Mr Gordon:** Mr Rimmer, in what way does the council believe EARL will encourage modal shift?

**Keith Rimmer (City of Edinburgh Council):** First, the road system around west Edinburgh, particularly around the airport, is getting close to its saturation point. The council believes that EARL will make a significant beneficial impact on long-term car use and traffic growth in west Edinburgh because of the footprint that it will open up through public transport accessing the airport. Indeed, information that we have obtained from modelling shows that to be the case. Our figures show that no EARL would lead to substantial congestion in the road network around the airport, whereas with EARL there would be a significant movement of trips away from road-borne transport and on to the train services that will access the airport.

**Mr Gordon:** So it would be fair to say that one of your policy objectives is to compete with the motor car?

**Keith Rimmer:** No, I think it is fair to say that we seek to encourage a sustainable modal shift over time. We are not looking to compete as such, but we are looking to make public transport an attractive alternative to the car. I think that EARL, uniquely, does that. The committee is probably aware of this statistic: something like 68 per cent of the Scottish population will live within 2 miles of a railway station and train services that can connect to the airport. That is a significant step along the path to modal shift.

**Mr Gordon:** In trying to achieve sustainable modal shift from the car, on which you elaborated, would integrated ticketing at attractive prices play a part?

**Keith Rimmer:** There is no doubt that integrated ticketing would greatly assist in creating a more attractive public transport environment for many existing car users. For example, I can envisage someone arriving from a more northern part of Scotland getting very close to a platform, getting on a tram and completing their journey in Leith. That sort of opportunity would be very attractive in encouraging modal shift.

11:30

**Mr Gordon:** Do you think that people should or would pay a premium for the convenience of that type of integrated ticketing arrangement?

**Keith Rimmer:** That is not really for me to say. The operators will have to operate such integrated ticketing arrangements. Any case that those arrangements should attract a premium would have to be made by the operator.

**Mr Gordon:** Could you elaborate on whether the Edinburgh tram project will compete with EARL for patronage—and, indeed, with the Airlink bus? If you think it will not, why will it not?

**Keith Rimmer:** There is an interrelationship in patronage between the tram link and EARL. If EARL did not go ahead but the tram did, the patronage would be higher on the tram than it will be if EARL is also built. However, the two schemes do not really compete with each other. The rationale for the tram and its connection to the airport lies in serving most of the economic growth centres in Edinburgh. The tram route goes through a particularly vibrant corridor. It connects the airport with the Royal Bank of Scotland offices and all the development around Edinburgh Park and the Gyle, and goes onwards to north Edinburgh via either the city centre or the spur from Roseburn up to Granton. The tram does something that the train cannot do.

You ask whether the tram will reduce the number of bus trips. It will, to some extent. The committee has, I think, been given a table of

information showing projections for 2026. From what I recall, fewer bus journeys are made in the scenario that includes EARL than are made in the scenario without EARL.

**Mr Gordon:** Could you say a bit more about how traffic congestion will be reduced as a result of EARL?

**Keith Rimmer:** I will find some figures for that, if the committee could bear with me.

I have a table in front of me that summarises modelling results for future years. I have already indirectly referred to it. Without EARL, we anticipate that road trips around the airport will account for 14.55 million journeys, which is about 64 per cent of the total. With EARL, those same road journeys will drop to 12.88 million, or 56 per cent of the total. That gives you some idea of the significant potential impact that EARL will make on road congestion in that part of west Edinburgh.

**Mr Gordon:** I assume that that table can be made available to the committee.

**Keith Rimmer:** Yes, it can.

**Mr Gordon:** Some objectors have expressed concern that roads surrounding the airport will become more congested, especially during construction, given the additional lorry movements. How does the City of Edinburgh Council propose to address the additional congestion arising from lorry movements during construction, especially on the local roads?

**Keith Rimmer:** The council has still to examine any proposals for construction movements. You may be assured that the council will examine that matter most carefully. You are quite right to say that there will be a significant impact on the local road network during construction. As a general principle, the council will seek to ensure that the developer and contractor make optimum use of the railway itself as a haulage route to minimise the impact on the local road network.

Materials should be brought to and removed from the site through node points that have bespoke connections to the principal parts of the road network, so that lots of traffic and lorries are not discharged on to minor roads. We will look carefully at the issue, but I think that a managed solution can be found.

**Christine Grahame:** Does the figure of 64 per cent for car traffic that is currently going to the airport refer to Edinburgh traffic?

**Keith Rimmer:** It is a projection for 2026.

**Christine Grahame:** Where does the traffic come from? Is it traffic just from what one might call Edinburgh roads?

**Keith Rimmer:** No, it is traffic from all destinations that converges on the road network in

the part of west Edinburgh that is adjacent to the airport.

**Christine Grahame:** Thank you for clarifying that.

I also want to ask you about the disruption that the project will cause. I use the A8 regularly and saw the disruption that was caused by the construction of the Royal Bank of Scotland headquarters and bridge, which went on for a considerable period. You said that there would be node points where construction traffic would come in and out. I do not know what is meant by node points. Where would they be on the road?

**Keith Rimmer:** I emphasise the answer that I gave to Charles Gordon. We have not looked at the issue in detail, and there is considerable detailed work to do around it. We will seek to ensure that the developer creates accesses at suitable points along the route that connect as directly as possible to the principal road network.

**Christine Grahame:** There are not many such points on the route.

**Keith Rimmer:** No, but there are opportunities. A great deal of work remains to be done on the issue.

**Christine Grahame:** I am obliged to you for being frank about that. There is also the issue of how long the disruption will go on. The area is already a pinchpoint for traffic in Edinburgh, even when no construction is going on around it.

**Keith Rimmer:** I cannot deal with that point directly. A detailed answer can be provided only by the promoter, which will be able to tell you precisely how long it expects the construction activities to take and to explain in more detail what design work is being done on mitigation features that you as a committee member and I as an officer of the City of Edinburgh Council are anxious to see. At this stage, it is not possible for me to give a detailed answer to your question.

**Christine Grahame:** Given their experience of the Royal Bank of Scotland project and of the construction of the Gogar roundabout underpass, you can see why businesses and people who commute to Edinburgh have concerns. Those projects caused huge disruption: tailbacks throughout the city and other knock-on effects. The area near the airport is very congested.

**Keith Rimmer:** It is. The figures show that, at times, current traffic levels are very near the capacity of the roads and junctions.

I can best answer your question by explaining the council's approach to major activity of this kind. As a city, we are faced with major works from time to time, although perhaps not quite on the scale of EARL. We have a standard approach to

major works that have the potential to cause problems on the road network. As far as possible, we expect the developer to provide the same road capacity in each direction during peaks as exists at the moment. In other words, if two lanes are available during the morning peak inbound, we expect two lanes to be maintained during the inbound peak.

It may—and probably would—be the case that road capacity could be pinched out quite happily from the other direction to allow work to be undertaken. Indeed, that methodology is quite common. Works are organised in such a way that only a quarter of a dual carriageway, for example, is taken out at any time and tidal flow arrangements ensure the availability of two inbound lanes in the morning and two outbound lanes in the evening.

The council will take such an approach to this project and will expect the developer to demonstrate that such mitigation will be carried out. Moreover, we will ask it to undertake some local modelling of expected traffic volume around particular pinchpoints. In the past, we have asked developers and utility companies to carry out what is called microsimulation modelling, which provides a computer-generated picture of how traffic behaves when it is faced with a particular set of circumstances or a particular physical constriction.

**Christine Grahame:** Was the methodology that you have just outlined used when the bridge to the Royal Bank of Scotland development at Gogarburn was constructed? I seem to remember that for a long time only single lanes were in operation on that stretch of road.

**Keith Rimmer:** To be honest, I cannot recall the arrangements for that development.

**Iain Smith:** Your written evidence sets out how EARL fits in with your local transport strategy. How will the project meet the strategy's aim of reducing the environmental impact of travel?

**Keith Rimmer:** As I have already explained, the introduction of EARL will mean a reduction in the level of road-borne traffic. Given the direct correlation between greenhouse gas and other emissions and road traffic volume, the reduction in road traffic volume that EARL facilitates will lead to a reduction in greenhouse gas emissions.

**Iain Smith:** Why does the council believe that EARL will increase the proportion of journeys made on foot, by cycle and by powered two-wheelers?

**Keith Rimmer:** In a separate stream of work, we are trying under our local transport strategy and the regional transport strategy to improve cycle links with the airport. A number of initiatives

that we are taking forward should improve cycle access in particular, which will make the prospect of cycling to the airport more attractive to people.

**Iain Smith:** Given that certain waste disposal sites are some distance from the source of the waste, how will the disposal of waste material by lorries during the construction period impact on the council's objective to reduce the environmental impact of travel?

**Keith Rimmer:** I presume that you are referring to tunnel arisings and other excavation material. Again, it is up to the developer and the contractor to make detailed proposals on whether waste from the site will go to landfill; if so, how it will get there; and what any local impacts might be. I cannot provide a direct response to your question because I do not know the detail. However, it is an important matter that the developer needs to work up. I imagine that both the City of Edinburgh Council and West Lothian Council, in whose area some of the landfill sites might be, will look to the developer to mitigate the impact of moving large amounts of material and any local impacts of disposing large quantities of waste to landfill.

**Iain Smith:** Will you explain how EARL is consistent with the local transport strategy objective of reducing the need to travel?

11:45

**Keith Rimmer:** Encouraging people to travel sustainably might be a better way of putting the objective. The only way we can reduce the absolute need to travel is to ensure that people live close to where they need to be. The way our society is these days leads to people living in pretty dispersed geography and embarking on substantial journeys at times. The key is sustainable travel, and EARL is an opportunity to enhance public transport journeys.

Another aspect, which we have not yet discussed—perhaps you will come on to it—is the potential for interchange that EARL will facilitate. It is an important dimension. Good interchange facilities make the public transport alternative more attractive, because time for certain journeys is saved. That all contributes to sustainability and helps reduce the number of car trips.

**Iain Smith:** How much is the interchange facility that EARL could provide dependent on what BAA decides to do with its surface access strategy?

**Keith Rimmer:** There is clearly a connection. There is no doubt that the airport station will provide a natural interchange facility. I have already mentioned the interchange between heavy rail and tram, which is important. There is also the interchange between heavy rail and bus services that will continue to serve the airport. The third

dimension is the opportunity to make certain journeys more attractive. For example, if someone is travelling from Fife to Glasgow, in many cases it will be much more convenient for them to interchange at the airport, which would save a considerable journey time.

There needs to be an alignment between BAA's surface access strategy and the way we hope—and expect—the station will be used. I cannot answer on behalf of BAA.

**Iain Smith:** I was not asking you to.

The SKM report identified that a rail link is more likely to prosper where road traffic restraint policies are in place both in the city and at the airport? How does the council intend to ensure that road policies encourage people to use EARL?

**Keith Rimmer:** There will be a natural encouragement. As you know, at particular times of day the city is significantly congested at certain points, particularly on the west side. This is about offering opportunities. If we offer the right opportunities in relation to public transport, car users will embrace them.

The council is anxious actively to promote the messages about such opportunities. We are redrafting our local transport strategy and seek to give suitable prominence to EARL within it. We will of course promote an intensive public information campaign about the opportunities that the tram project will bring to travel in the Edinburgh area. The opportunities that EARL will provide are closely allied to that. The council will seek to promote the message as widely as possible through all the means that we have at our disposal, including the council's publication, "Outlook", of which transport is a regular feature, which goes to every household in the city. We will seek to publicise the important new public transport opportunities as widely as possible.

**Christine Grahame:** I think you said that you want to develop a network of cycle routes to create an integrated transport hub. Is that correct?

**Keith Rimmer:** At present, we are considering developing further the network of cycle routes in Edinburgh, including a specific connection to the airport.

**Christine Grahame:** To that end, the evidence of Spokes is that

"the existing A8 cycle route in both directions is appalling".

Do you agree?

**Keith Rimmer:** It is not a route that I would choose to cycle on, if I could avoid it.

**Christine Grahame:** Are you a cyclist?

**Keith Rimmer:** I am an occasional cyclist.

**Christine Grahame:** Probably not as occasional as I am. You agree that the route requires upgrading. Will the route link to the airport?

**Keith Rimmer:** Yes. That whole area of west Edinburgh will undergo significant redevelopment in the medium to long term. We are considering the sustainable transport routes that could be implemented in the area. Clearly, some cycle route upgrading will be development led in future, when development proposals for that area of west Edinburgh become clearer than they are today. However, in conjunction with the south-east Scotland transport partnership, we are considering how we can upgrade the existing routes. A high priority for the city is to do what we can in the short term to upgrade the cycle linkages from west Edinburgh to the airport. We hope to develop that scheme through SESTRAN.

**Christine Grahame:** An issue that is close to my heart is the Waverley line, which the Parliament will debate tomorrow. The City of Edinburgh Council is a co-promoter of the Waverley Railway (Scotland) Bill. You say that it is essential that the Waverley line from Tweedbank through Midlothian to Edinburgh links to EARL. Will you develop that, so that I can use what you say as evidence against any member who says in tomorrow's debate that the Waverley line is a local one and that we should not have it? I hope that I am allowed to talk about the Waverley line in this context, convener, although I have taken an oath not to talk about it too much.

**Iain Smith:** You have not been very successful.

**Christine Grahame:** None of my oaths ever is.

**Keith Rimmer:** The investment in the Borders rail link is important and will bring enormous benefits for people who live in the area. One way of realising that benefit is to facilitate connectivity to greater Edinburgh. The benefit will not come only from people travelling from Galashiels or somewhere else in that part of the Borders to Waverley station. The way in which Edinburgh and most other cities operate nowadays means that people need to access a large part of the city easily. As we have already discussed, a large part of the commerce of the city takes place in the western part and, increasingly, in the northern waterfront area. It is important that, in opening up new transport links such as the Waverley line, we create seamless journeys to as many of the other economic growth centres in the city as possible.

If the Borders service to Waverley then went onward to the airport station, that would be an enormously important step and would make the Borders rail link a great deal more attractive to potential passengers than it might otherwise be. Of course we could ask people to change at Waverley—it would be relatively easy—but that

will never be as attractive as a through trip, if it can be arranged.

My understanding of the proposed service pattern for Waverley is that the Edinburgh to Dunblane service, which extends to the park-and-ride site at Newcraighall at the moment, will be extended to form the Borders service. The opportunity for a direct connection from the Borders to the airport would seem to be both real and desirable.

**Christine Grahame:** And in the other direction?

**Keith Rimmer:** Yes.

**Christine Grahame:** We want a flow in that direction, too—I am thinking of short breaks and so on. Albeit that you are—quite rightly—punting for Edinburgh, do you envisage that people will extend their journey beyond the confines of the city?

**Keith Rimmer:** Yes. The project is not just about the airport. From the city's point of view, one of the attractive things about the Borders rail link is the fact that it connects a population that is increasingly needed to take up many of the jobs that the city has to offer. We now have a deficit in the city. If all the jobs that are on offer in Edinburgh, many of which are on the west side of the city, are to be taken up, we are now reliant on people coming into the city to fill those vacancies. For the city, it is just as important for rail services to connect with Edinburgh Park as it is for them to connect to the airport.

**Christine Grahame:** That is useful. I think that I have all of it down for the debate tomorrow.

What benefits will EARL bring to the local economy in Edinburgh? If, as you said, the local economy is overheated and there is a deficit in the city, will the project make things worse or better?

**Keith Rimmer:** It will make things better. I guess that there are two principal aspects to the local economy. I have just spoken about the first, which is to make public transport more attractive to people from outside the city and thereby make it easier and more sustainable for people to take up jobs in the city area. The second is to recognise the important role that tourism plays in the local city and city region economies. We cannot underestimate the impact that good public transport links have in that regard. Direct rail links of the sort that we are talking about are enormously attractive to tourists. Having high-quality links with the principal airport that are easy to use does a lot to promote the image of a city and a city region.

**The Convener:** I turn to our witnesses from West Lothian Council. I have a couple of points to raise following on from your earlier evidence. The first is for Mr Malcolm. You acknowledged the fact

that a station at Winchburgh is not within the province of the bill. What, if anything, do you want us to do with the information that you gave us about your desire for that station to remain at the forefront of people's thoughts. Do you want us to do anything to make the code of construction practice and the environmental statement more enforceable? Finally, do you want to see any changes made to the bill?

12:00

**Graeme Malcolm:** On the first point, we would like the committee to check the engineering feasibility of introducing a station at Winchburgh following the EARL realignment, where it connects with the Dalmeny chord. Secondly, we would like the committee to look at the timetabling changes that are associated with the project—we are aware that they are only at draft stage.

A number of timetabling changes will be introduced throughout central Scotland following the reopening of the Waverley line, the Bathgate to Airdrie line and so forth. We ask the committee to ensure that Winchburgh is not forgotten about in the whole timetabling exercise, as we have seen happen on many occasions. The first reason for progress on a new railway station project to halt is because the station cannot be fitted into the timetabling. West Lothian Council would like that to be changed around. EARL provides an opportunity for the Parliament to show that it is considering not only the airport rail link but the future of the railway in the central belt. Therefore, we would like that to be investigated further as part of the process.

As I have already stated and as Mr Rimmer said, the devil is in the detail of the code of construction practice. We have raised a number of issues and we would like you to test further the promoter's commitment to the code through the bill process. The mitigation measures and the routings are important to the delivery of the project. The bill could be given royal assent and then the promoter walks away from the code. That is when problems would occur for the local communities, which the local authorities would be left to deal with. More work is required on the code of construction practice as part of the bill process. As we have indicated, we are willing to work with the promoter on that and we hope that, over the coming months, we will be able to achieve a more detailed code.

**Wendy McCorriston:** In addition to that, we would like the promoter to work with the developer on the Winchburgh expansion, as there is likely to be overlap in the projects and the construction traffic movements. The two projects and mitigation for them should be considered together.

**The Convener:** If the bill is passed, it will give the promoter the power to construct the link. Am I right in thinking that you are saying that work needs to be done before that stage to ensure that, if the link goes ahead, the communities that you represent are safeguarded and their concerns are taken on board?

**Graeme Malcolm:** It is important that an assurance is given, as part of the bill process, that the impact of construction traffic will be dealt with sensibly. It is easy to say that all the HGV movements will take place, but what if the local road network cannot cope with them? Christine Grahame asked about disruption to a local network on the A8. If such a situation occurs in a small community with 2,500 people, the disruption will be significantly worse than on the A8. Commuters might consider the disruption to be far worse, but residents of Winchburgh, who would have to live with the works for three to five years, could find it quite disheartening to think that their local authority did not make a case for them at the appropriate time, so we are trying to do that this morning.

**The Convener:** There are no more questions from members. Are there any other points of information that we have not touched on this morning?

**Graeme Malcolm:** No.

**The Convener:** I thank you all for your useful evidence.

We will have a brief suspension while we allow the witnesses to change over.

12:03

*Meeting suspended.*

12:05

*On resuming—*

**The Convener:** I welcome to the meeting our next witnesses. Peter Spinney is chairperson of the Association of British Drivers in Scotland and Bruce Young is the Lothian co-ordinator of the association.

**Bruce Young (Association of British Drivers):** Thank you very much.

**The Convener:** Who wants to ask the first question?

**Christine Grahame:** I do. How many UK members does the Association of British Drivers have? I did not see a figure in the papers.

**Bruce Young:** I could not tell you. I have access to that information, but I do not have the software that would let me access it.

**Christine Grahame:** You represent Lothian members, Mr Young. How many members does the organisation have in Lothian?

**Bruce Young:** I cannot tell you that either because I cannot access the information.

**Christine Grahame:** It would be useful to have that information at some point for the sake of completeness.

**Bruce Young:** Right.

**Peter Spinney (Association of British Drivers):** The last time I checked, there were 73 members of the organisation in Scotland. The figure for Britain is much larger than that.

**Christine Grahame:** Thank you very much.

How do you see cars fitting into the transport hub that it has been said Edinburgh airport will become with the establishment of EARL?

**Bruce Young:** I said to Peter Spinney earlier that I initially thought that different ways of getting to the airport were being discussed rather than a transport hub, but I am warming to that theme. I think that it is very likely that people will look on the station at Edinburgh airport as an alternative to Waverley. People who live in the west of Edinburgh—in Barnton, for example—might find it far more convenient to take their car to the airport, park it there and catch a train than to go on a bus with all their luggage into the centre of the city, where there is no car parking at all. Car parking facilities are an important part of the airport's facilities, and there is every possibility that more cars will park there as a result of the railway station and the growth of the airport as a whole.

**Christine Grahame:** So instead of the Edinburgh airport rail link taking cars off the roads—as we think it would—there could be more cars on the roads because people will want to go to the airport's car park and then get a train.

**Bruce Young:** There could be more cars within the area of the airport, but I do not think that people will start to use trains to go to places to which they do not already go. It will simply be more convenient for them to get to trains.

**Christine Grahame:** My next question follows on from that. Surely parking at Edinburgh airport will be more restricted with the developments that are envisaged. What will the impact of that be on drivers in your organisation? Surely they will be unable to park.

**Bruce Young:** Life will be made more difficult for them. Such an approach to planning the project would be very short-sighted. There should be more car parking facilities at the airport as it develops.

**Christine Grahame:** That flies in the face of our trying to get people to take trains, trams and buses.

**Bruce Young:** Not necessarily. I offered to meet Peter Spinney at Hermiston Gait, on the outskirts of Edinburgh, this morning. He was coming down from Stirling and I thought that he could park there and we could go into the centre of the city together. However, he told me that it would be far more convenient to come into Edinburgh by train from where he lives. That took me aback because I live in the little thumb of the Scottish Borders, at West Linton.

**Christine Grahame:** So you are a West Linton man.

**Bruce Young:** Yes, I am.

**Christine Grahame:** I had a question for you later, which I will ask now. A man from West Linton reminds me of the man on the Clapham omnibus.

In your submission, you give the example of someone from West Linton, who we now know is you, who lives

"25 minutes from the airport by car ... he took the 6.00am flight to Heathrow or Stanstead so no public transport, however good, could realistically have improved his journey times at that time of day."

Is your point that the proposed rail link will have limited benefits for people such as you?

**Bruce Young:** I appreciate that we are moving in the general direction of trying to move people out of cars and on to public transport, I hope by improving public transport rather than making cars more difficult to use. However, the reality is that over the past 30 years, people have been able to live where they do because they have had access to a car. In my case, it was because we had access to two cars. Once I got a company car, my wife was able to use her car to go to Glasgow where she works two days a week. We both build up quite large mileages getting between work and home. Unless someone decides to reopen West Linton station and connect it directly to the airport—

**Christine Grahame:** You never know—that might be my next project.

**Bruce Young:** Using the car makes for a shorter journey and, of course, it leaves exactly when I want it to.

**Christine Grahame:** That is just you; we are also talking about other drivers.

**Bruce Young:** Yes, but the point is that during the past 30 years, people who work in the Edinburgh area have been able to live almost anywhere they like. When I moved to West Linton in 1981, the going rate for a commutable distance

was 20 miles. I understand that people now routinely commute to Edinburgh from Galashiels, which is 35 miles away. Many houses are being built down there to be sold specifically to Edinburgh commuters because, sadly, Galashiels does not have the infrastructure to support that size of population.

**Christine Grahame:** You say in your submission:

"The airport is heavily used by 'local' travellers".

How do you know? What is that based on?

**Bruce Young:** I took that as a truth, frankly, because it is the local airport. If you have grounds for believing that relatively few people who use Edinburgh airport live within the Edinburgh commuter belt, I would be interested to know what they are.

**Christine Grahame:** I am not saying that relatively few people use the airport; I am asking whether it is heavily used. I am testing your statement to find out on what it is based. You are talking mainly about people who live within a short commuting distance of Edinburgh driving to the airport in their cars. We are looking for people from all over Scotland to take trains to the airport. That is entirely different from what you are talking about.

**Bruce Young:** I do not think so. I think that I said in our written evidence that Edinburgh airport is, as you say, used heavily by local travellers—

**Christine Grahame:** No, you said that.

**Bruce Young:** The main benefit of the proposed rail link will be to people who live outside the Edinburgh area because it will make it more convenient for them to reach the airport without coming into the centre of Edinburgh first.

**Christine Grahame:** Let us say that EARL goes ahead. What changes would address the concerns about local demand, not just from West Linton or Gala man, but from—I am not being sexist here—west Edinburgh man and woman? What changes are necessary to get them out of their cars?

**Bruce Young:** It is unlikely that there would be a heavy shift in demand for public transport as a result of EARL opening. Before I moved to West Linton, I lived in Barnton. Even from Barnton, it was far more convenient to take a car, taxi or get a lift to the airport than to go to the centre of town or the zoo, where the airport bus picks people up. The distance from Barnton to the airport is not much greater than the distance from Barnton to the zoo.

I have given two examples from personal experience of situations in which it would be difficult for public transport to meet everyone's needs—leaving aside any prejudices that people might have.

12:15

**The Convener:** Christine Grahame made the point that the line will link the airport not just with the greater Edinburgh area but with everywhere else in Scotland. How do you respond to the criticism that your written evidence takes a too parochial view of the bill and fails to see the wider significance of the rail link for other parts of Scotland outwith the Edinburgh area?

**Bruce Young:** That criticism is unfair. In both my written and oral evidence, I have said that the airport rail link will benefit mainly people from outwith the Edinburgh area.

In fairness, we can all only really speak from our personal experience and give our own take on what we see of the greater picture. For instance, when I first got married, I lived in Yoker—as my wife worked in Glasgow—until our first flat was ready in Edinburgh. I had to take the blue train to the station in George Square—

**Mr Gordon:** Do you mean Queen Street station?

**Bruce Young:** Yes, that is it. I used to have to take the train to Queen Street station, from where I took the train through to Edinburgh. I then had a 15 to 20 minute walk from Haymarket station to my office.

**The Convener:** Your written evidence states:

“the rail link will have only a relatively minor benefit to Scotland’s economy.”

First, what is that based on? Secondly, can you give examples from the construction of rail links to other airports that would bear that out?

**Bruce Young:** Sorry, what was the first part of the question?

**The Convener:** Why will the rail link be of relatively minor benefit to the economy of Scotland?

**Bruce Young:** I find myself questioning the proposition that far more people will use the airport as a result of the rail link because it will allow them to travel to or away from Edinburgh—

**The Convener:** I am sorry to interrupt, but some of the witnesses from whom we took evidence last week suggested that other European airports with rail links are developing more quickly and that the local and national economies benefit from such links. As you take a different view, I want to tease out the reason for that.

**Bruce Young:** Let me make two points. First, the fact that other capital cities have found that an airport rail link has been beneficial does not necessarily mean that such rail links are important for economic growth. It is arguable that Edinburgh would have the same level of economic growth

regardless of whether it has a rail link. Those other capital cities might be in the same position.

Secondly, the preliminary paragraph of our written evidence states that we welcome the proposed rail link but we question the cost/benefit of the scheme. The cost is a major issue. If the link could be produced for £5 million, no one would say anything other than, “That is a great idea. Let us have it. Why didn’t we have it 20 years ago?” The devil is in the detail. As an accountant, I tend to say that everything boils down to money.

**Peter Spinney:** Let me make just a small point. To answer the question, the economic benefit depends to a large extent on the details of the rail link. For example, the Stansted airport rail link is infamous and people stay away from the airport on that account, whereas the rail link to London Heathrow is very good. If you asked me to draw a parallel, I would say that I am not impressed with the scheme. I do not think that the rail link will attract a lot of people, and it will cost an awful lot of money.

**The Convener:** In answer to a question from Christine Grahame, you indicated that you think that car parking needs to be expanded at the airport, although you then said that that would be to provide a better transport hub. How much extra car parking do you think the airport requires?

**Bruce Young:** It is not my job to say. I would be deeply concerned if I did not warn you that I believe that there will continue to be a growing requirement for car parking at the airport. It would be a mistaken policy to say, “Now that we’ve got the airport rail link, we don’t really need the car parking that we’ve got.” I believe the opposite to be the case. I believe that, as the airport develops, we will continue to require a proportional increase in car parking facilities. I really do not believe that people who have the flexibility of living anywhere within a broad radius of their place of work because they have a car will ever be able to do without it. Some of them—principally those who live in the city centre, probably those in the broader area of the suburbs and possibly, if public transport is good enough, those along the radial routes—might be able to do without a car. As the radial routes spread out, away from the city, so does the area in which people can currently live conveniently because of cars. Those areas do not have large enough populations to justify their own first-class public transport services, so I really do not see the car ever being phased out, whatever form it may take.

**Christine Grahame:** You make an interesting point that I had not thought about. All the development at the Waverley railway station and the shrinking car parking in town mean that people will need more car parking if they want to travel up to Perth or Inverness by catching the train at the

hub at the airport, contrary to what one might think. I had not thought of it that way.

**Bruce Young:** That is true. In fact, it is possible that modal transfer from the car would be principally along those lines. People who would drive to Perth or Aberdeen might find it more convenient to travel by train if they were able to drop the car off at the airport and take the train from there.

**Christine Grahame:** Depending on parking charges, I would have thought.

**Bruce Young:** Yes, obviously.

**Mr McGrigor:** That was just my point. How great do you consider the relevance of the charges for car parking to be?

**Bruce Young:** The more expensive car parking is, the less socially inclusive—to use a buzzword—it will be. If you price people out of using car parking facilities, you make those facilities less available to more people, which I am sure is not something that the Scottish Parliament would wish to do.

**Mr Gordon:** I want to touch on some broader policy issues. Does your association accept that the current situation with the railway industry in this country is such that rail travellers pay the true economic cost of their rail travel?

**Bruce Young:** I do not think that my association has a view on that.

**Peter Spinney:** There are massive subsidies.

**Mr Gordon:** Mr Spinney was shaking his head as you declined to comment, Mr Young, so I will ask him about this, if I may.

**Peter Spinney:** You certainly may. The railway gets massive subsidies. Drivers get none at all.

**Mr Gordon:** I was going to come on to drivers. Do you take the view that drivers pay the true economic cost of their road use, including the cost of congestion, pollution and accidents?

**Peter Spinney:** I would not go quite that far, but bearing in mind how little is being done to the roads I think that £40 billion ought to go quite a long way, and that is what we pay.

**Mr Gordon:** Do you accept that it is not easy to compare the true cost of rail use with the true cost of road use?

**Peter Spinney:** It is almost impossible to make such a comparison because of the rail fare system. I would defy you to do so, given the numerous factors involved, which can vary greatly.

**Mr Gordon:** Do you accept that, by buying a ticket, the rail user pays for the cost of accidents, maintenance and infrastructure investment on the

rail network, which avoids the development of congestion?

**Peter Spinney:** No, sir, I do not. I will explain why. To travel to the Parliament today, I bought a return ticket from the far side of Glasgow for £7.50. I could not begin to get near that with a car.

**Mr Gordon:** Your trip today was too cheap.

**Peter Spinney:** Certainly—that is my point. It is very difficult to compare the cost of rail travel with the cost of road travel.

**Bruce Young:** If the railways required no subsidy whatever and were able to clear their feet and invest for the future on the ticket take, they would begin to make the sort of contribution that road users make and on which they do not get a full return.

There is a body of professional engineers in the UK who advocate tarmacking the railway network to provide lorry-specific routes. A lane of trucks—which are all speed limited anyway—could be run in either direction. Those engineers maintain that that would be a far better use of the mileage of train track than is being achieved by running trains on it.

**Mr Gordon:** Our consensus on the railways is that we would not have started from here.

**The Convener:** I am not sure that we want to go much further down that line. We have moved off the subject of the Edinburgh airport rail link. As members have no further questions about the specifics of the project, do either of the witnesses have anything to say to us that they feel has not been covered in questioning?

12:30

**Bruce Young:** Yes. Our invitation to give evidence told us that we would be talking mainly about congestion, the railway infrastructure and the proposed new link, but when I framed our written evidence, I expressed concern about cost/benefit and possible cost inflation.

There are three aspects of cost inflation that require to be addressed. The first is that the present estimates are by no means exhaustive. TIE Ltd has said that a number of works have not yet been identified. There will be a requirement for compulsory purchase and I do not know whether the amount of money that has been set aside for that—if any has been—will be anything like the final figure.

Secondly, although the promoter has made provision for an increase in cost from £496.9 million in quarter 4 of 2004 to an indexed forecast of £609.9 million, I do not know whether the inflation rate that has been applied is adequate to meet construction cost inflation between now and

when the work is done. Such inflation has got nothing to do with the retail prices index and relates largely to the amount of competitive construction work that is being undertaken in the UK. The London Olympics venture will be a massive drain on resources nationally and if the Edinburgh tram network goes ahead, there will be local competition.

The third point is about optimism bias, or what an accountant would call contingencies. Professor Bent Flyvbjerg wrote a very interesting book, published by Cambridge University Press, which was reviewed in *The Times* some time ago. It said that public works are consistently and endemically underpriced at the outset to get approval. We certainly know from the tramline experience that that was TIE's policy for the tram network. I have produced copies of *The Times* review, which is very readable and entertaining. It is important that members are aware of the potential for cost optimism.

I have also noted that TIE made provision for optimism bias but it looks to me from the increase from £497 million to £610 million that it did not take into account the full amount recommended by the Department for Transport guidelines for rail infrastructure, which requires a 57 per cent optimism bias to provide an 80 per cent confidence that the project will be within cost. TIE has not yet built that into the figures.

**The Convener:** You are making very valid points, but we will take evidence on the cost of the project in a fortnight's time, and those are the very issues that we will want to raise with the promoter. I am sure that we will get evidence from the other witnesses that we have called for that particular day. However, it is useful for you to have pointed that out to us and we will be returning to the issue in great detail in a fortnight.

**Bruce Young:** That is good. It is quite important. I have done copies of the article for each member of the committee. It also makes the point that, over the years, projects that have massively overrun have turned out to be quite a good thing, but Professor Flyvbjerg believes strongly that, in reviewing projects, a tight grip must be maintained on cost. I am pleased to hear that you are going to do that.

**The Convener:** We can think of a particular project very close to us here where that would apply.

I thank you both very much indeed for coming to give us evidence this afternoon. It has been useful.

12:33

*Meeting suspended.*

14:10

*On resuming—*

**The Convener:** I welcome everyone back to the meeting. We recommence our oral evidence taking this afternoon with Tom Hart, who is the vice-president of the Scottish Association for Public Transport; Colin Howden, who is the director of TRANSform Scotland; and David Spaven, who is the chair of TRANSform Scotland.

What is the main benefit of your proposed EARL route option, which is to remove the proposed link from the airport to Roddinglaw? It is known as "the South Gyle option".

**Tom Hart (Scottish Association for Public Transport):** That route was the preferred option in our original submission. We welcome the proposal for improved access to airports for people who do not own cars, and for people who do, who will not need to use their cars so much.

However, the present proposal is overscaled. We had a meeting with TIE to discuss some of our concerns. TIE evaluated our suggestion that there was no need for the link from Edinburgh airport to Roddinglaw and then through Edinburgh Park. We were concerned that that would increase problems of reliability on the more overcrowded section of line coming out of Waverley on the southern side. On the northern lines, via the northern platforms at Haymarket, there is more spare capacity. We felt that our proposal would reduce the need for conflicting movements at junctions and that it would produce a similar range of benefits to the original EARL proposal at a lower cost. It would also bring about lower operational costs because the amount of new track would be reduced. In summary, those were the main benefits that we envisaged.

**The Convener:** Will you explain how the proposal to divert trains via South Gyle would avoid the reliability and capacity issues that you explain would be created by diverting trains via Edinburgh Park?

**Tom Hart:** More than two years ago, we had a meeting with TIE to discuss the original plan, which was to have a link only from the airport through Edinburgh Park. At that meeting, it was mentioned that because of the number of services on the line through Edinburgh Park and the southern platforms at Haymarket, it might be necessary to evaluate an alternative link to Gyle and Gogar. What eventually happened is that TIE proposed both routes, which we felt was overegging the pudding. One link to South Gyle would give us an adequate connection, and would allow the development of through services via the airport and ensure greater reliability on the lines through the southern platforms at Haymarket.

**The Convener:** What would be the impact on patronage of the EARL project if the project was changed to reflect your proposed route? Would passenger numbers be the same?

**Tom Hart:** TIE asked AEA Technology Rail to consider our alternative. AEA concluded that our proposal would have no significant impact on reliability or on the performance of the system. It said, on advice from TIE's modellers, that there might be a significant reduction in income, but it did not quantify that reduction. Our response was that a fully integrated ticketing system and frequent tram services constitute a good package, which should not give rise to a significant reduction in income, given there would also be a saving on capital costs. We query the view that there would be a large loss of revenue.

AEA mentioned some particular problems with there being no through heavy rail trains from the airport to Edinburgh Park, but alternative links will be provided by the tram, which will be more frequent.

Just yesterday, I got the latest news sheet from TIE on the Edinburgh tram project. Its Edinburgh Park station will be north of the rail station—the employment there is dispersed. So, a frequent tram service would take people to the Royal Bank of Scotland headquarters and more directly to employment at Edinburgh Park. We disputed TIE's view that there would be a substantial loss of income, but we have not been able to clarify its view and what it meant by "substantial".

14:15

**The Convener:** We will probably return to that point later this afternoon. You believe that your proposal would not materially affect the provision of an airport link that will access the rest of Scotland.

**Tom Hart:** No. It would still provide services running through the airport. There would be the same number of services as in the EARL proposals.

**Mr McGrigor:** The committee has received evidence that direct access and journey time are important factors in addressing social inclusion. Can you explain how your proposed alternative, which would not directly serve west Edinburgh, would address social inclusion or those aspects of it?

**Tom Hart:** Our proposed alternative would leave the airport station as it is, with the through services. There will be tram access to the station and some car parking. There will be heavy rail access and routes going up to Inverness and Aberdeen and across to Glasgow. The station would develop as a more general interchange for

west Edinburgh, not just for people who want to use the airport. There are other ways in which that could be achieved, however. We are not detracting in any way from the concept of there being a good west Edinburgh interchange or of people changing between bus and rail, car and rail or tram and rail.

**Mr McGrigor:** Your written submission states that your proposal would save about £45 million in capital costs, although a redesigned Gogar junction could cost £22.5 million. That could result in a saving of £22.5 million on the present cost of the EARL project. In your view, does that saving represent value for money?

**Tom Hart:** I think that those were AEA figures. We agree that there could be a saving in capital costs of about £40 million and a saving of £5 million in land costs. AEA also proposed additional land take in the South Gyle area to ensure reliability. We consulted its report on the Turnhouse options; it said that there will be no need, certainly for the initial period, for elaborate works at South Gyle if there are to be no more than 12 trains per hour. We do not agree, therefore, that it would be necessary to spend £22.5 million in order to save £45 million. We think that it is more likely that the saving would be £45 million.

There is another issue on which we would like TIE's confirmation. In the costings, some of the contracts for particular work have relatively low prices; however, when the design costs, preparation of plans, contingency costs and optimism bias are added in, the figure builds up to £600 million-plus. I am not sure whether that £45 million includes an optimism bias or whether it is just the basic construction cost, but compared to the proposed EARL scheme, our scheme would give better value for money.

We have suggested that there is also a need to evaluate an alternative that would give bigger capital savings and ease operational problems by creating an interchange in the Gogar area. I am sure that TRANSform Scotland will elaborate on that.

**Mr Gordon:** Can you explain how your people-mover option to operate between Gogar and the airport would avoid the security and safety issues that BAA has said exist with the proposed Turnhouse people-mover option?

**Tom Hart:** The major problem with the Turnhouse people-mover option was that it would not take people from Turnhouse right into the airport. It would terminate about halfway, not because of security issues, but because of the geographical factors that affect the Gogar burn. People would have had to change from the people mover on to a travelator, which would have meant

quite a lengthy access time to Turnhouse. The proposal for the people mover or automated shuttle from Gogar into the airport would simply take over the line that is already proposed for use as the rail link from South Gyle to the airport. We would not see any change in security issues.

**Mr Gordon:** Does that address BAA's concerns about safety and security in this context?

**Tom Hart:** I noticed that BAA objected to details of the bill that would apply to the heavy rail terminal as well as to the tram terminal. Those can be overcome. The principle is to have good-quality access.

**Mr Gordon:** Can you elaborate a bit more on the savings and benefits of the Gogar people-mover option?

**Tom Hart:** In 2004, with TRANSform Scotland, we asked that consideration of the Turnhouse options include consideration of the provision of a people mover from the Gogar area, which could be a pretty good interchange for west Edinburgh, possibly with some car parking and better bus access. There would thereby be created the choice of a tram going round by the Royal Bank of Scotland's headquarters and the park-and-ride scheme at Ingliston into the airport, or a more direct route on the line that is currently proposed as the heavy rail link between the airport and Gogar.

**Mr Gordon:** Do you have any examples of other people-mover options of similar length at airports?

**Tom Hart:** There is one in Zurich, of which our chairman, John McCormick, has direct experience. He was very impressed with it. He is on holiday this week, which is why I am appearing at committee.

I can tell you about my experience of the people mover at Newark airport. There is a relatively new people mover there that is dreadful: it is badly designed and very cramped, and it moves unevenly. I would not say that it is an attraction at all. John McCormick said that the Zurich one was totally different: it is capacious and smooth, and it provides a good connection with the rail service.

**Mr Gordon:** Can you say any more about the general reliability of people movers and their approximate cost?

**Tom Hart:** I am not a technical expert on people movers. I am sure that we could get more information about the capital and running costs for you from Zurich—our chairman has contacts at Zurich airport.

**The Convener:** That would be helpful. Thank you.

**Christine Grahame:** I have questions for TRANSform Scotland. Throughout your written

submission, you cite the unacceptable consequence of longer journey times as a consequence of the EARL scheme, although the increase would seem to be just a few minutes here and there. Does that matter?

**David Spaven (TRANSform Scotland):** It would matter to somebody who lived in Dundee or Aberdeen who wanted to travel to Edinburgh by train and who found that 6 and a half minutes was going to be added to their journey time: people now realistically expect that journey times will be speeded up. Most people in that part of the world would regard that as unacceptable.

There would also be an increased journey time to Dunblane. TIE has suggested that there would be no increase in the journey time to Glasgow—which is rather different from what it was saying a couple of years ago—but that seems to be predicated on the buying of entirely new rolling stock and/or electrification in order to remove the extra journey time penalty on the trains to Glasgow. An underlying theme of our objection to this particular scheme—as opposed to the principle of an Edinburgh airport rail link—is that the tail is wagging the dog. Trains between Edinburgh and Glasgow are slower than they were in 1971, so we feel that addressing that should be a much higher priority than an airport rail link.

**Christine Grahame:** So, one of your basic objections is that, by building the airport link rather than using the Gogar and Turnhouse junctions—which you mention in your written submission—we would delay mainline trains.

**David Spaven:** That is one of our objections.

**Christine Grahame:** What are your concerns about the role of the Edinburgh airport masterplan and the delivery of increased modal share of passengers arriving at the airport?

**David Spaven:** We are obviously concerned about the modal split. We would like there to be a higher public transport share, but we note that in the past two or three years, while EARL was originally projected to increase the public transport share from 16 per cent to 18 or 19 per cent, Lothian Buses' airlink bus has already pushed that share up to 20 per cent of all access to the airport without any cost to the taxpayer. There are some fairly significant issues about value for money in achieving that projected modal share.

**Christine Grahame:** Your submission is fairly scathing about the consultation on the Dalmeny chord and the Gogar and Turnhouse options. It acknowledges that the promoter has analysed the Turnhouse option but says that you still

"consider the option development process to be flawed."

This is a big issue and a lot of money is at stake, so could you develop that please?

**David Spaven:** The Gogar option has not been examined. In a sense, TIE should not be blamed for that because it goes back to what the Scottish Executive laid down originally when it commissioned the original consultants to consider a variety of options, all of which were based on the idea of a heavy rail terminal or station at the airport terminal.

I have maps with me that might make clearer where the Gogar option would be, but we are in essence talking about a heavy rail and light rail interchange just north of the A8-A720 roundabout at Gogar on the Fife line, and possible associated works such as a chord south of the Dalmeny junction. That was originally proposed in the late 1980s by the then general manager of ScotRail, John Ellis, as a way of improving the journey time between Edinburgh and Glasgow and of providing an airport rail link.

**Christine Grahame:** Am I right to say that that would not only get rid of the problems with the main-line trains being delayed, but would be a lot cheaper?

**David Spaven:** We think that it would be cheaper because it would avoid massive tunnelling.

**Christine Grahame:** Do you have an idea of the savings that would be made if that was the chosen option? I do not know whether I am supposed to ask that.

**David Spaven:** We do not claim to be technical experts. TIE should consider the Gogar option and cost it professionally using consultants. TRANSform Scotland is a campaigning group, so we could not pretend to cost that option accurately.

**Christine Grahame:** How would your Gogar station option address the disadvantages that the promoter identifies for the Turnhouse option, such as the safety, economy, and non-public-transport user benefits?

**David Spaven:** Following what Tom Hart said, a Gogar heavy rail and light rail interchange would be a key public transport hub in the west of Edinburgh. That links to the point about social inclusion. It would be a sound way to proceed, but the costs and benefits have to be examined in detail and that has not been done so far.

**Christine Grahame:** Paragraph 3.1.4 of your submission points out that it is not all or nothing. It states:

"A rail station at Gogar/Turnhouse could be delivered in a relatively short timescale given that it lies within the footprint of the existing railway; it also does not rule out long-term development of a rail tunnel option if and when finances allow."

You are therefore saying that a link could be built at Edinburgh airport.

**David Spaven:** Indeed. One of the issues to which we refer is the question of what can be done and how quickly it can be done. There is the possibility of phased development, which would achieve the aim of serving the airport from Edinburgh, Fife and Dundee without getting into massive infrastructure issues.

**Christine Grahame:** We have heard a lot about Edinburgh Park and businesses, and I note that your submission goes on to say that

"The sole drawback of this alternative is that it doesn't provide a direct rail link from Edinburgh Park station to Edinburgh Airport—yet Tram Line 2 provides Edinburgh Park with a direct tram link into the Airport."

Is that right?

**David Spaven:** That is my understanding.

**Colin Howden (TRANSform Scotland):** That is certainly my understanding, too.

**Christine Grahame:** I move on to paragraph 3.3.3 of your submission. I understand that there is rolling stock that is part of the EARL project. Why do you believe that the cost of rolling stock should be attributed to EARL, rather than its being part of the development of the rail network?

14:30

**David Spaven:** It seems to us that, because EARL involves tunnelling at fairly steep gradients under the airport and adding an extra stop, there is a clear desire to mitigate the extra delay that will arise from that, so the possibility of new trains has been introduced. We think that the new trains and the electrification of the Scottish inter-city rail network are good ideas, but we believe that those projects should have priority over EARL.

**Christine Grahame:** You also think that they should not be part of the EARL project's costings. Would you do them first?

**David Spaven:** In terms of opportunity cost, a far better way of spending the money would be to consider a rolling programme of electrification in Scotland. Because of the way that oil prices are going, it is time to consider railway electrification seriously.

**Iain Smith:** The Turnhouse and Gogar options would not give some of the benefits that it appears the airport option would give in providing an interchange between Fife services and services for Glasgow, for example. To what extent have you taken that into account in determining that the airport option is not the best one?

**Tom Hart:** The Gogar option would provide a Fife interchange just as the airport station would, because people would change at Gogar from the Fife to Edinburgh trains to trains going to Glasgow, exactly as would happen at the airport station.

**Iain Smith:** I would need to see the map to see exactly where you put the station.

**David Spaven:** I would like to come in on a related issue. What people in Fife would probably like above all is a direct train from Fife to Glasgow. There are one or two at the moment, but the idea of a faster and more regular service from Fife to Glasgow is attractive, and there are longer-term issues to do with the possibility of reopening passenger services through Dunfermline through Alloa and Stirling to Glasgow.

**Iain Smith:** Speaking as a Fife resident and regular rail user, I say that the option of being able to change somewhere other than Haymarket is quite attractive, as is the option of having fast links to the airport. I am not certain that people in Fife will get the same benefit from your proposals for Gogar.

**David Spaven:** Our proposal would retain access from Fife to the airport and access from the Glasgow route to the airport. As Tom Hart said, it would also provide an interchange at Gogar, as opposed to Haymarket or Edinburgh airport itself.

**Iain Smith:** It does not provide direct access to the airport, but a transfer to—

**David Spaven:** No, but it comes back to the overall issue of value for money and what benefits we get in return for the costs. In a sense, the jury is still out on that question. It needs to be examined but it has not been.

**Colin Howden:** You also have to put it in the context of the disbenefits for people who travel on the Scottish rail network. As someone who travels to Aberdeen frequently, I have to ask what the disbenefit to me would be of six and a half minutes being added on to that journey compared with someone having to make one change to get into Edinburgh airport. We have to look at the issue in the broader context.

**Iain Smith:** I am trying to do that. I am just trying to tease some of those issues out a bit.

**Tom Hart:** In connection with Fife, you also need to remember that, under the EARL proposals, some of the Fife trains would not serve the airport but would use the present line, and passengers would not be able to change on to the tram system because there will be no interchange, unless they went right into Haymarket. With a Gogar interchange, however, there is the option of changing for the quick link into the airport or on to the tram to reach any other station on the west side of Edinburgh.

**Iain Smith:** If all trains were to stop at Gogar, I presume that all trains would have a delay because every additional stop on the network will inevitably result in a delay or a longer service.

What is your estimate of how much would be added to journey times by having to stop there?

**Tom Hart:** A Gogar interchange would have a higher capacity than the airport station that is proposed, which would be sub-surface and would be an island with a platform on either side. It is anticipated that longer-distance trains with luggage and more passengers would need to be allowed about 90 seconds' stopping time, which would reduce the capacity of the route. However, a four-platform station could be provided on flat land at Gogar, which would improve reliability and reduce waiting times.

**Iain Smith:** Every train that stops must slow down to stop, then start again.

**Tom Hart:** If a station has four platforms—

**Iain Smith:** The amount of additional journey time for EARL has been estimated, although I am not sure why it is estimated that Fife services will take three and a half minutes whereas Aberdeen services will take six and a half minutes to go along the same route. How much time would be added by stopping at Gogar? I just want to find out what the difference is.

**Tom Hart:** The figures would be similar to those for the EARL proposal. Passengers would stop at the airport and change to Gogar.

**Iain Smith:** I understand.

**Tom Hart:** No extra time would be added. Because the additional curvature and distance would not apply, the travel time from Aberdeen to Edinburgh would not have the same increase.

**David Spaven:** The typical increase in journey time from stopping a train is about two minutes. However, if Glasgow trains were run via the Dalmeny chord instead of the Winchburgh tunnel, the speed restriction through Winchburgh tunnel would be avoided. Consultants must consider the net impact.

**The Convener:** Do you wish to apprise the committee of any points that members have not touched on?

**Tom Hart:** I will mention three points; I am sure that David Spaven will also have concluding remarks. We are concerned about the project's capital costs and some operational aspects. The project will be very expensive; the appraisal report suggested that it might take 10 years for income to cover the extra operational costs, which is a long time. Also, other projects in Scotland are more important. We want a strategy for transport and sustainability and we worry that the project could slow down progress on more important and less expensive projects. We want a project that fits into a sound national strategy for transport.

We have almost regarded the aviation forecasts in the white paper of 2003 as set in stone, but the

real world is different. Energy prices are much higher and interest is growing in the advantages for Scotland of a high-speed rail link from central Scotland to London and other English cities. Network Rail produced a report on that in the middle of May; its view is that the Government favours a shift from short-distance air travel to rail, which has at present only about 15 per cent of the Anglo-Scottish market—air travel forms the rest. Network Rail claims that a high-speed rail link would increase rail's share to 70 per cent or more, which makes the project look viable. That would reduce the need for heavy expenditure on a second runway and it would require consideration of the forecast traffic at Edinburgh airport. The Gogar option might turn out to be more robust financially when it is related to the sustainable transport strategy for Scotland.

Improved journey times on the Edinburgh to Glasgow route have been long delayed. I live in Ayrshire and I know that people in south-west Scotland complain that it is difficult to travel across Glasgow. The SAPT's view is that a quick win would be additional capacity on the Ayr line, which would also serve Prestwick. A service could reverse at Glasgow Central station and run to Edinburgh via central Lanarkshire and Livingston, which is a poorly served route that does not have fast services, so it would be a good market in which to increase the rail share. That fits with sustainability. That route would provide, between Glasgow Central station and Edinburgh, a faster service that would avoid the capacity problems that arise at Glasgow Queen Street, which has shorter platforms.

Rather than consider one project, we need a strategic project review if our strategies for the future are to be strong and we are to be able to finance them. EARL must be judged on whether it meets such criteria.

**The Convener:** Although the committee is charged with examining EARL in isolation, your comments are useful because they put the matter in the national context.

Are there any other points that you wish to raise with the committee?

**Colin Howden:** To sum up, we support the provision of rail links to airports. We supplied written evidence on the Glasgow airport rail link project and we are very much in favour of that, although we suggested some modifications. We would like an Edinburgh airport rail link to be delivered but we do not think that the current project is the right one or that the process has been handled well.

The other key point is the opportunity cost of the project. We cover that in our written submission, stating that there is no committed funding for

phase 2 of the Waverley station project and that there are substantial funding gaps for tramlines 1 and 2. We are strong advocates for those projects, but we are concerned about funding. We need to increase the line speed between Edinburgh and Glasgow and we have talked today about the line speeds on the Edinburgh, Glasgow and Aberdeen triangle. Those are all key projects and we think that they should be higher priorities for the Parliament than EARL.

Earlier, David Spaven talked about electrification costs. One of our member groups, Rail Futures Scotland, is preparing a position paper on that issue and we would be happy to make its early findings available if that would be of interest to the committee.

**The Convener:** I am sure that it would be. Thank you.

That concludes our questioning. Thank you for your attendance. We will take a short break to enable a change of witnesses.

14:41

*Meeting suspended.*

14:43

*On resuming—*

**The Convener:** Our next witness this afternoon is John David Ede, who is one of the objectors. He has plans for an alternative project. Welcome to the committee.

**John David Ede:** Thank you for inviting me. It is nice to be here.

**Mr McGrigor:** What are the main advantages of your proposed short-term Winchburgh and Roddinglaw alternative scheme?

**John David Ede:** The main advantage is that it allows the Executive to hedge its bets as to how domestic travel in the UK will develop in the future. The line affords a direct link between Edinburgh city centre and the airport, which would support aviation for the time that aviation continues to be the most popular form of transport, but we know that energy costs will increase and that aviation will decline.

There are two parts to the project. A 200-year railway would be built from Waverley to Roddinglaw and a sacrificial spur would be built from Roddinglaw to the airport. The majority of the line—the 200-year railway—could be incorporated in the high-speed rail network in the future. Therefore, any money that was invested would outlive the airport and the benefits would continue for many generations into the future.

The project would also free up extra capacity in Edinburgh, so we could hang other things on it.

We could reintroduce south suburban services because it would free up some of the junctions to the west of the city. Obviously, it would allow direct trains to the airport, but it would also allow an increased frequency of trains on the national network. If the tunnels were made to UIC C gauge, European-standard high-speed double-deck trains could be used right into the heart of Edinburgh.

14:45

**Mr McGrigor:** That brings me to my next question. You propose a long-term dedicated rail link scheme, which would require an expanded number of tracks into Waverley.

**John David Ede:** That is correct.

**Mr McGrigor:** What are the key benefits of that long-term scheme?

**John David Ede:** You have to understand the limited lifespan of aviation. It is well known that, in the next few years, we will reach a point called peak oil. World oil output will reach its maximum and, after that, the only way forward is for oil output to decline relentlessly. We expect petroleum output from crude oil to fall by 60 per cent during the next four decades. That will have a devastating effect on the world economy in general.

Accompanying the fall in crude oil output will be a change in the character of the crude oil that we are able to extract from the ground. The crack spread from that oil will degrade the quality of oil that we will be able to get. It will contain more sulphur and tar and, when it is put through a refinery, a much smaller proportion of the crude oil will be suitable for aviation. For example, one gets less aviation fuel per barrel from middle eastern oil than from North sea oil. Over the next 40 years, the aviation industry can expect a 70 to 80 per cent fall in the availability of jet fuel.

Because of the contraction in the supply of oil there will be more political conflict and tension over resources. The characteristics that make jet fuel perfect for aviation also make it perfect for military use in battlefield situations. It is used in fighter jets, attack helicopters, tanks, mobile rocket launchers, armoured personnel carriers, amphibious landing craft and ships. As the supply of kerosene dwindles during the next few decades, the proportion that is taken by the military will increase.

**Mr McGrigor:** I get your point. To return to the benefits of the two parts of your scheme, what would be the cost of implementing the short-term and long-term schemes? Over what timescales would they be developed?

**John David Ede:** Given that oil will become scarce, the long-term scenario is to build a two-

part railway. A railway would be built from Waverley to Haymarket—with new tunnels and new platforms at Haymarket—and on to Roddinglaw.

**Mr McGrigor:** Yes, but I am asking about the costs and the timescale.

**John David Ede:** The cost of the tunnel between Waverley and Haymarket would probably be about £300 million. It would probably cost a little more than the proposed EARL tunnel because it is in an urban setting.

**Mr McGrigor:** How long would it take to build?

**John David Ede:** I imagine that it would take the same length of time as the EARL project. It is a simple, straightforward tunnel. The Victorians built the existing tunnels 130 years ago and I do not see why there should be any added complexity.

**Mr McGrigor:** You state that you believe that the contraction of passenger numbers at the airport by 2040 will result in a direct rail link to the airport being redundant.

**John David Ede:** Yes.

**Mr McGrigor:** What would be the impact on your schemes if passenger numbers did not decline and there was continued passenger growth?

**John David Ede:** Continued passenger growth is very unlikely. We do not have the fuel resources to provide the energy for it.

**Christine Grahame:** What are the main changes that you would like to see made to the proposed tunnel at the airport in order to address your safety concerns?

**John David Ede:** The simplest thing is to move the junction from inside the tunnel to outside it, so that if a collision that involves a fire ever takes place at the junction, the fire will not occur in a confined space. It would be possible to move the junction north so that it is not inside the tunnel.

**Christine Grahame:** In your view there is quite a serious problem with the design.

**John David Ede:** Yes. The Turbostar trains have fuel tanks that expand almost to the limit of the loading gauge on the train. If there was a collision and the tanks were ruptured, there would be a serious fire that would probably involve spraying fuel, which would expand with the heat of combustion. That would engulf the wreckage, so injured people might be burned inside the trains in the tunnel.

**Christine Grahame:** Surely the design would have to comply with legislation about tunnel safety and so on.

**John David Ede:** That is for you to ask TIE. Common sense indicates that it does not make sense to put a junction inside a tunnel. Historically, it was never done. The risk from fire in train collisions is now as high as it has ever been, because there are diesel multiple units with a fuel tank on every carriage.

**Christine Grahame:** This may be a silly question, but are there junctions in other tunnels?

**John David Ede:** Not that I am aware of in the United Kingdom. There are occasionally points at the mouth of tunnels. For example, there are points at Queen Street station in Glasgow, but the running speeds are very slow. There are not converging tunnels and junctions on the remainder of the network. It is just not done.

There are crossovers in the Channel tunnel, because it is a very long tunnel and it is necessary to isolate parts of the track for maintenance work and so on. Those crossovers allow the trains to go from the left-hand track to the right-hand track, so that work can be done on one of the tracks. The crossovers are protected by derailment sensors that are many miles ahead of them. Therefore, if there was a derailed wheel on a train that was approaching, it would activate a sensor, which would in effect stop the train before it got to the junction. The trouble with the EARL tunnel is that it is too short to employ that technology, so the points would be unprotected inside the tunnel. If a derailed wheel was to come in, a carriage could derail and perhaps be deflected into the path of another train that was heading in the opposite direction. There could then be a collision.

The rule is to try to keep track architecture inside tunnels as simple as possible.

**The Convener:** With regard to journey times, could you go into detail about the comments that the reliability of trains on the rail network will decrease as a result of the EARL project? Do you know of any other recently constructed airport links where that has been an issue?

**John David Ede:** The link to Charles de Gaulle airport in France is a world-class scheme. The line is connected to the peripheral railway that runs round Paris. It is a high-speed railway, which has a top speed approaching 190 mph. All the mainline stations in Paris are connected to the line and all the junctions on the line are grade separated, so if a train leaves Gare du Nord and runs round to the south side of the city it can leave the station and go through five or six junctions without ever having a traffic conflict.

The system is very robust because there are no conflicting train movements. If a train is late, it has no impact on other services because train paths never conflict: it is either above or below because of the grade separation. It is a very well executed

scheme, but it is also a very expensive scheme, which is part of the European high speed network. If there were flat junctions, the whole network would grind to a halt and be far less punctual. With grade separation, trains are run to the second—they arrive within seconds of their stated arrival times.

**The Convener:** And there is only one grade separation in this project.

**John David Ede:** There is only one. The other junctions are flat.

The nearest comparison that I can think of is with a combination padlock. If a padlock has only one tumbler that you can roll it is easy to pick the lock because there are only nine digits to choose from, but if the padlock has three tumblers or six tumblers it is much harder to break the code because of the number of possible extra combinations. It is the same with junctions.

The effect of having one junction after another after another can be unpredictable. You could have two late-running trains passing each other without any conflicts. Alternatively, you could have one train that was on time and one that was running three minutes late that might conflict at the first junction. In that case either the late train would be delayed or both trains would be delayed further. At the next junction, because they are no longer in their timetable slot, there is a chance for another conflict and the effect can snowball through the network. The more junctions you have, the higher the chance that your train times will be less reliable.

In the Scottish network, the standard deviation of arrival times is quite broad because of the classic nature of the network. It is nothing to do with Network Rail or the staff not working hard to try to keep the trains on time; it is just that the network is 170 years old and has a lot of flat junctions. Slight delays tend to get amplified at the junctions because of traffic conflicts. The more junctions you put into the network, the more chance there is for conflict in the network, which means that the standard deviation of arrival times will broaden.

**The Convener:** Do you accept that new rolling stock would mitigate some of the concerns?

**John David Ede:** Modern rolling stock is no faster than older rolling stock if it is held at a danger signal waiting to pass a junction. It will accelerate up to line speed but, once that level is reached, the train is governed by the geometry of the track and the signalling headway in the system. That means that you save perhaps 30 seconds while the train reaches 90mph, at which point it is no faster than other trains. Because EARL diverts existing traffic before returning it to the main line, there is a chance that a train that is

delayed on EARL could end up being out of course, which might mean that it has to run behind a stopping service and would have no opportunity to make up time.

**Iain Smith:** Coming from Fife, the convener and I know all about getting stuck behind stopping services.

**The Convener:** And junctions.

**Iain Smith:** Well, yes. Actually, the problem is to do with a lack of junctions that enable trains to pass each other.

My understanding is that your alternative scheme would provide no connectivity for trains from Aberdeen, Dundee, Fife and other places in the north.

**John David Ede:** It would. Passengers on the east coast main line would enjoy the same reliable timetable that they do at the moment, so they could make a quick transfer at Haymarket to one of the trains to the airport, which would leave every 10 minutes or so.

**Iain Smith:** That is the point that I am making. There is no direct connectivity.

**John David Ede:** Your point relates to the 20 per cent of passengers who would want to go to the airport. The other 80 per cent of passengers would find that their timetable would be as reliable as ever and that they would not be inconvenienced at all.

**Iain Smith:** But 20 per cent of passengers would be. That is the point that I am trying to make.

**John David Ede:** Yes, but, at the same time, if the timetable runs reliably, are they going to be inconvenienced just because they have to change trains? If the EARL proposal ended up with our having unreliable trains, would that be an advantage?

**Iain Smith:** What would you say to the argument that, at present, many people do not use public transport to get to the airport from Fife and the north because they have to come into Edinburgh and go out again, which adds at least half an hour to the journey? Even with a fast train from Haymarket, that would still be the case.

**John David Ede:** You would have to look at the costings and the number of passengers who will use the service to determine whether it would be justifiable to build a standalone line for that volume of traffic. Do enough people in Fife want to travel to the airport? If there were no scheme for connecting Edinburgh to the airport, would a standalone scheme to connect Fife to the airport ever cover its costs?

**Iain Smith:** I do not think that I was talking about a standalone scheme for Fife. I am just

trying to clarify that your alternative does not provide any improvement to the service that is currently available to passengers from the north.

15:00

**John David Ede:** It requires a change of train at Haymarket. That relates to my main point. Whether the scheme costs £650 million or £750 million, all it will do is divert the existing railway capacity and provide a stop at the airport. We know that the life of the airport will be limited to 20, 25 or—at a push—30 years and that, after that, the aviation industry is going to collapse because of fuel starvation. What we are going to do with the railway network when the airport closes? That is the main disadvantage of the EARL scheme. It involves spending a lot of money on relocating railway tracks to the airport and creating infrastructure that will be completely redundant and will need to be abandoned when the airport closes.

The alternative scheme that I propose, which involves building a dedicated line from Waverley, with a short spur to Haymarket, would allow the majority of the investment to be incorporated into high-speed rail, which could be retained for the future. That would mean that the investment would not be lost when the aviation industry collapses.

**Iain Smith:** That is fine if you are coming from Glasgow.

**The Convener:** I thank John David Ede for giving evidence this afternoon.

That concludes agenda item 2. At our meeting on 23 May, we agreed that, prior to taking oral evidence from the promoters' witnesses, the committee would briefly move into private session to enable us to reflect on the issues that have arisen during the oral evidence that we have heard today and consider the questions that we want to pose to the promoter. Accordingly, we will now move into private session.

15:01

*Meeting continued in private.*

15:19

*Meeting continued in public.*

**The Convener:** I welcome everyone back to the meeting—thank you for your patience.

Our final panel today comprises witnesses who are appearing on behalf of the promoter to respond to questions on transport, including sustainable alternatives, congestion and interchange. Susan Clark is project director with TIE Ltd; Paul McCartney is associate economist with Halcrow; Trond Haugen is transportation manager with Fife Council and chairman of the

south-east Scotland transport partnership rail group; John Inman is planning strategy manager for the City of Edinburgh Council; and Marwan AL-Azzawi is principal transport planner with Scott Wilson Railways. I welcome the panel to the meeting. Some of you had a long session with us last week; I hope that it was not too onerous. We have a number of questions for you this week.

**Iain Smith:** I will start off, as Christine Grahame cannot think of any questions. I was just thinking that having Paul McCartney on the team should solve the funding problems.

**Paul McCartney (Halcrow):** I am just about to get divorced.

**Christine Grahame:** We also have a John Inman. That is a very starry name.

**The Convener:** Let us have some decorum, colleagues.

**Iain Smith:** My apologies.

In paragraph 387 of its response, the promoter states that EARL and tramline 2 serve complementary passenger needs. Will you elaborate on those complementary needs and say whether the near 50 per cent reduction in market share that the tramline 2 promoter predicts by 2026 supports that view?

**The Convener:** As happened last week, perhaps Susan Clark will direct the question to the most appropriate panel member.

**Susan Clark (TIE Ltd):** I will kick off. TIE believes that EARL and tramline 2 provide complementary services. The tram will provide a service for people within the city who want to get from locations within the city to the airport, whereas the service that EARL will provide will connect Scotland to Edinburgh airport.

It is true to say that the figures show some abstraction from tram patronage to EARL by 2026. However, it is important to note that the largest percentage of abstraction in travel patterns is from the car to EARL—the figure amounts to 1.7 million car journeys.

I ask Marwan AL-Azzawi to provide further detail on that.

**Marwan AL-Azzawi (Scott Wilson Railways):** As the airport grows, bus services will also continue to grow; patronage will increase from current predicted levels. We were heavily involved with the tramline 2 team in carrying out modelling at the airport. In fact, we showed that the complementary nature of EARL and the tramline 2 proposals would produce passenger numbers that were slightly better than those that were envisaged originally.

**Iain Smith:** One of the stated aims of EARL is to reduce congestion to and around the airport. How

does that objective sit with the comments in paragraph 397 that the airport station may be used as a secure park-and-ride facility by those who want to access the national rail network? We heard evidence this morning from the Association of British Drivers that people in west Edinburgh in particular might use the airport station instead of Waverley station.

**Susan Clark:** One of the policy objectives of the bill is to reduce congestion. The bill therefore makes no provision for additional car parking. If car users wish to use the car parking facility at the airport to access the rail network, that would be their choice.

**Iain Smith:** One of the concerns is that, if you do not control the number of car drivers who use the airport, the benefits from EARL will be fewer than projected. Are you in discussions with BAA about its long-term car parking strategy—or money-making strategy, as some people might see it? BAA could simply increase the number of parking spaces.

**Susan Clark:** I will bring in Marwan AL-Azzawi and then John Inman.

**Marwan AL-Azzawi:** The demand modelling was carried out in consultation with BAA. In fact, BAA supplied us with information on its existing parking strategy, including its fare structures, and its future plans for car parking at the airport. Therefore, the demand modelling takes cognisance of BAA's view of how things will develop in future and uses BAA's data. I emphasise that point.

Despite the predicted increases in congestion and in traffic movements on the road network, the demand modelling still predicts that EARL will remove 1.7 million road trips from the road network. For that reason, we are quite comfortable with the view that, despite those increases in congestion, EARL will provide benefits that will filter through.

If the Edinburgh congestion charging policy had been successful and congestion charging had kicked in, we would have got additional benefits over and above those estimates because much tougher fiscal measures would have been implemented. However, in any case, even if congestion charging does not happen, the information that was supplied to us takes cognisance of BAA's parking strategy.

**John Inman (City of Edinburgh Council):** From the council's point of view, we have linked the growth of Edinburgh airport closely to the achieving of sustainable modal share. That was the nature of our comments on the draft master plan. We have not yet seen the final master plan, but we expect that it will have clear modal share targets that will assume the existence of EARL

and the trams and will also assume a certain amount of travel by car. The city council will not be able to support the growth in the master plan unless we are happy and comfortable with the modal share targets, including assumptions about car parking.

**Iain Smith:** What is the prospect of EARL becoming part of a transport hub at Edinburgh airport? Paragraph 403 of the promoter's written response states that the transport hub concept is very much dependent on the BAA master plan for the airport. When is it anticipated that the promoter will receive the master plan? How will the promoter ensure that EARL can fulfil its full potential of becoming part of a transport hub if BAA has different objectives, such as increasing the number of parking spaces rather than encouraging opportunities for transport interchange?

**Susan Clark:** TIE, the council and the Scottish Executive have all commented on the draft master plan, which was published last summer. We made comments on modal shift and so on. Along with a number of the stakeholders involved in the EARL project, TIE has been in discussion with BAA and we have had several workshops about development of the transport hub concept as part of BAA's work to develop the master plan. BAA has concept drawings about how a transport hub could work as part of that overall master plan. The concept integrates EARL, tram, bus and taxi use as well as the private car. Work has gone on with BAA in trying to develop that concept.

**Iain Smith:** Are cycles also part of that hub concept?

**Trond Haugen (South-East Scotland Transport Partnership):** SESTRAN has quite an intensive programme for providing additional cycle routes. About £1.1 million will be spent on those in the next two years, with a further £3.6 million following on. I understand that one of those projects would link the airport to the A8 cycle route that has been developed by the City of Edinburgh Council. I am sure that that will be quite a high priority when the £1.1 million is spent.

**Iain Smith:** How much money will EARL contribute towards the creation of the transport hub?

**Susan Clark:** EARL has not identified a specific pot of money for the transport hub. EARL creates a station in the vicinity of which a transport hub could be created. Our capital cost estimate for the station and the approaches to it is a total of £41 million.

**Iain Smith:** Given that the station will be some distance from the main terminal, how will it improve access for disabled people?

**Susan Clark:** The station will be about 100m from the terminal building. The current design is based on having lift, escalator and ramp access to ensure that there is disabled access. We will work with mobility organisations to ensure that it is fully compliant with the Disability Discrimination Act 1995. At the moment, the scope of the project is to ensure full DDA compliance.

15:30

**Christine Grahame:** The promoter states that Transport Scotland has assumed responsibility for rolling stock upgrades and is concentrating on performance characteristics. How confident is the promoter that issues of access and luggage space will not be overlooked when Transport Scotland considers other aspects, such as procurement costs?

**Susan Clark:** Transport Scotland has a representative on the EARL project board along with other stakeholders, who are keen to ensure that issues such as luggage capacity and performance characteristics are all taken on board. Those key stakeholders include BAA, First ScotRail and Network Rail and they update the project board every month on progress with the rolling stock strategy. We understand that Transport Scotland will finalise a diesel rolling stock strategy by the autumn and that a procurement process will start early next year. We will feed in, and have fed in, specifications to that.

**Christine Grahame:** The same rolling stock will be used for train services straight through. Will some passenger seats be sacrificed?

**Susan Clark:** I think that I mentioned last week—perhaps I did not—that TIE facilitated a session with the world's rolling stock manufacturers in Edinburgh early this year. We invited manufacturers to hear about the overall specification for rolling stock so that they could start to think about innovative ways of balancing the competing needs.

**Christine Grahame:** Are you talking about adaptability of trains?

**Susan Clark:** Yes.

**Mr Gordon:** Am I to understand that you think that nothing suitable is available in the rolling stock marketplace now?

**Susan Clark:** We believe that the rolling stock market will adapt to the requirements of EARL. I am sure that members have travelled on the Heathrow express and have seen what is available in the market. We need to ensure that the product that is delivered for EARL is fit for purpose, not just to serve the airport, but to meet other needs, such as those of commuters.

**Mr Gordon:** Talking to manufacturers implies that you are looking for a new product. You would talk to rolling stock companies, which I understand are all owned by banks, if you were thinking about procuring rolling stock off the shelf.

**Susan Clark:** We are looking for a product that has enhanced performance characteristics—a product that is comparable to the Virgin Voyager but does not include its weight. Some models are on the market, but we want to open up the opportunity to ensure that we bring the innovation that we require into the project.

**Mr Gordon:** Are you comfortable with the notion that you might be the first to use a new generation of rolling stock? You do not mind being a guinea pig.

**Susan Clark:** I have been involved in the introduction of new rolling stock and I understand the pitfalls.

**Mr Gordon:** So have I—I have the scars to prove it.

**Susan Clark:** So have I. That is why we started considering performance characteristics a year ago.

**Christine Grahame:** I defer to Charles Gordon's knowledge.

The promoter said at the committee's meeting on 6 June that integrated ticketing will be a matter for Transport Scotland. I do not know whether you heard this morning's evidence on integrated ticketing. With that in mind, how do you envisage such ticketing working? What will the costs be? I have heard that a premium would be charged for integrated ticketing, which I think would make most people decide to buy tickets separately.

**Susan Clark:** TIE operates the one-ticket integrated ticketing system on behalf of the south-east Scotland transport partnership and has done so for the past four years. That system involves an integrated ticket for rail and bus services in the Edinburgh area. Since its introduction, the service has grown year on year. It is not accurate to say that, overall, the ticket is more expensive if someone goes for the integrated solution. The overall cost of buying a rail ticket with a bus ticket added on is lower than that of buying two individual tickets.

**Christine Grahame:** You say that an integrated ticketing system already operates in Edinburgh. Does that involve all the bus operators and not just Lothian Buses?

**Susan Clark:** It involves a range of bus operators.

**Christine Grahame:** Would the cost of £3.75 that was floated about be added to the normal cost of a rail ticket?

**Susan Clark:** No. I will let Marwan AL-Azzawi explain some of the detail, but that figure is an average fare from Edinburgh to the airport.

**Marwan AL-Azzawi:** Yes, that is correct. That is the fare that you would pay; it is not a supplement or a premium. I want to nip that misconception in the bud. It is not anything over and above what you would have paid already.

**Christine Grahame:** Will air passengers be able to purchase an inclusive ticket?

**Susan Clark:** We could consider that in the future. I know that Prestwick operates such a scheme.

**Christine Grahame:** What discussion, if any, has the promoter had about extending concessionary travel schemes to EARL? I should declare that I have an interest in that regard—pensioners travel on buses for free, you see.

**Susan Clark:** EARL does not introduce new services; it diverts existing services via the airport.

**Trond Haugen:** The rail concessionary schemes are a matter for individual local authorities. At the moment, the national concessionary scheme is applicable purely to buses. Some rail concessionary schemes are half fare and some use a fixed fare, such as 50p. The scheme that you are eligible for depends on the local authority area that you reside in.

**Christine Grahame:** Have you had discussions with the various authorities about concessionary fares?

**Susan Clark:** No.

**Iain Smith:** I assume that the fares to the airport from other stations in Edinburgh will be calculated in the same way that fares in the network are calculated at the moment.

**Susan Clark:** The fares have been outlined in the current business case. The actual fares policy is a matter for Transport Scotland and the franchise.

**Iain Smith:** If I were going to the airport from, say, Ladybank, would I pay the same to go to the airport as I would if I were going to Edinburgh, or would it be slightly less?

**Marwan AL-Azzawi:** Sorry, I did not catch all of your question.

**Iain Smith:** If I were catching the train to the airport from Ladybank, for example, would I pay the same fare as I would pay to get to Edinburgh just to go to the airport, or would there be a different fare?

**Marwan AL-Azzawi:** If the cost of your travel to the airport is less than £3.75, you would pay £3.75. If the cost of your travel to the airport is

more than £3.75—if you were travelling from Glasgow, for example—you would pay what you are paying already.

**Iain Smith:** I am sorry—I am trying to understand that. Are you saying that the calculation of the fare to the airport from places outwith Edinburgh, such as Glasgow, Dundee or Aberdeen, would be based on the current fare to Edinburgh?

**Marwan AL-Azzawi:** Yes, based on the current franchise assumptions.

**Iain Smith:** Thank you. I am sorry if my earlier question confused you.

**The Convener:** If someone wanted to go to the airport, but was on a train that did not go to the airport—for example, a Glasgow train or a north-east main line train—and had to transfer at Haymarket to go back out to the airport, would they have to pay an extra fare or would that be included in the price of the ticket that they had already bought?

**Marwan AL-Azzawi:** In theory, they would just pay the difference. There is a very flexible arrangement at the moment. It is early days yet and that is a detail that is yet to be ironed out, of course.

**The Convener:** I know that we should be asking First ScotRail that question rather than you, but I just thought of it—three hours too late.

The express train from Dunfermline does not stop at South Gyle station and someone who comes in from Fife has to pay extra to get back out to South Gyle from Haymarket. It just occurred to me to ask whether a similar situation would apply with regard to EARL.

**Susan Clark:** We can provide an answer to your question in writing.

**The Convener:** Earlier, we heard about the possibility of the line being electrified at some point in the future. Are there any costings for how much money would be required to upgrade the line to the standards required for electrification? I know that we talked about that last week.

**Susan Clark:** In our capital costs estimates, we have allowed for the future electrification of the route. The tunnels, the structures and so on are all designed to meet the standards that would be required to cope with future electrification. We have not included the costs of electrification, however.

**The Convener:** I have a few questions about the evidence that we heard this morning from West Lothian Council—I think that you heard it because you were in the public gallery. The council mentioned its concerns about the code of construction practice and the enforceability of the

mitigation measures that are proposed in the environmental statement. Will you elaborate on those? If the scheme goes ahead, how will you ensure that lots of people—particularly those who live around Winchburgh—will not be clamouring at our doors complaining about undue noise pollution from lorries?

**Susan Clark:** We met both West Lothian Council and the City of Edinburgh Council—which are the two planning authorities within whose areas the project will take place—and agreed that we will work with them on finalising the code of construction practice. We saw what happened with the tramline bills and the Waverley Railway (Scotland) Bill and the enforcement of environmental mitigation. Section 46 of the Edinburgh Airport Rail Link Bill goes some way towards addressing the matter, but we propose to refine that to ensure that there is enforceability by third parties and that the promoter or authorised undertaker complies with the environmental mitigations. We can provide the committee with a briefing note on how we intend to do that.

**The Convener:** That would be useful.

West Lothian Council stressed the possibility of a future station at Winchburgh. That is not within the scope of the bill, but do you have any comment to make on the plea that the council seemed to be making to us this morning?

**Susan Clark:** We have worked closely with West Lothian Council. Indeed, we did some timetable simulations on its behalf to examine whether it is possible to construct a station at Winchburgh after EARL has come on stream. Network Rail stated in its comments on the West Lothian structure and local plans that a station can be built at Winchburgh only if EARL goes ahead because that would give it a better chance of fitting into the overall timetable. I can provide an extract from Network Rail's comments.

**The Convener:** So the issue that was raised about engineering works does not preclude the possibility of a station at Winchburgh.

**Susan Clark:** In engineering terms, we can still construct a station at Winchburgh. We have spoken to West Lothian Council about options for that and the council has changed the local plan to take account of both the construction phase and the operational phase of EARL.

**Mr Gordon:** Does the promoter have any plans to include future cross-country franchise services, as Virgin Trains suggested in its submission?

**Susan Clark:** The provision of services is a matter for the timetable bids as we get closer to the introduction of EARL. Obviously, we have spoken to Virgin Trains, which is keen to run services via the airport. However, it is for Network

Rail and Transport Scotland to decide what services will run.

**Mr Gordon:** Virgin Trains expressed concern that, if network change rules are not followed, the future cross-country franchise could be financially affected. Do you intend to use your influence to ensure that the infrastructure engineering work follows the rules?

**Susan Clark:** I am sure that we have given Virgin Trains a commitment that we will follow the routine network change processes. We have an agreement in place with the company.

**Mr Gordon:** Do you intend to address the concerns that have been expressed about sustainability and the impact on the local environment of the disposal of waste material?

**Susan Clark:** Last week, I spoke about the environmental impact of the construction phase and we talked specifically about concrete and cement production. In the environmental statement we assume a worst-case scenario for the disposal of waste. We are setting up a small task group to consider how we can reduce the impact of the disposal of waste and comply with the hierarchy of reducing, reusing and then recycling. We are considering what we can reuse on the project when we build up embankments and so on and what other on-going construction projects in the local area might use some of the spoil from the project. We will consider how we contain the impacts of anything that we need to dispose of off site.

15:45

**Mr Gordon:** Have you considered the impact of increased fuel costs on growth at Edinburgh airport?

**Susan Clark:** Yes. Since the feedback that was given to the committee last week, we have examined the impact of the growth in air travel not reaching the levels forecast in the Department for Transport white paper. Marwan AL-Azzawi can give you some details on what that would do to the overall cost-benefit ratio.

**Marwan AL-Azzawi:** First, the answer to your question is that the air transport white paper included the effects of increased costs on not only the industry, but on travellers in the production of the future forecasts. You heard evidence at last week's meeting from Edinburgh Airport Ltd that even its own calculations and estimates are usually lower than the growth in passenger throughput that it has experienced. It may interest the committee to know that, despite the fact that in the past four years there has been a trebling of aviation fuel costs in general, passenger throughput at Edinburgh airport has been growing

at 9 to 16 per cent per annum. In fact, comparison with the figures for all the other airports in Scotland indicates that passenger throughput at Edinburgh airport has been growing at a much higher rate than it has across Scotland as a whole. It is important to bear that in mind. I reassure the committee that the air transport white paper's forecasts took into account future growth in costs as well as passenger fares.

As Susan Clark said, since last week's meeting we have carried out some sensitivity tests, which I believe were submitted to the committee last night. We looked at different levels of growth at different points. Members might remember that at last week's meeting I mentioned that the Scottish transport appraisal guidance includes 30-year and 60-year periods of assessment. For a 30-year appraisal, the level of growth would have to fall by 55 per cent in order to reach a BCR of 1.0—in other words, to break even. For a 60-year period, because of the extra 30 years of benefit streams coming in, the level of growth would have to fall by 70 per cent to break even. We would be looking at a significant fall in expectations for that to happen.

We heard from Edinburgh Airport that its forecasts are much higher than those in the air transport white paper. We have used what we call the central case, which is nowhere near the upper case that Edinburgh Airport is predicting. Richard Jeffrey said last week that by 2030 there would be something like 26 million passengers passing through the airport each year. The scenario that we have used is 23 million, so that is quite a significant drop from Edinburgh Airport's predicted figure.

Richard Jeffrey also mentioned that Edinburgh Airport had predicted something like an 8 per cent per annum compound growth in air passenger throughput. The modelling used in the air transport white paper is much more sophisticated than that. It takes on board different effects for each year, such as new carriers coming on board, the effect of air development funds kicking in and so on. The modelling uses a different value for each year; it does not use the same value. However, it may interest the committee to know that the forecast for growth in air passenger throughput ranges from 2 per cent to 6 per cent per annum, so it is still lower than what BAA has predicted and it is lower than what the airport has been experiencing.

**Mr Gordon:** I thank you for that comprehensive answer, but I dare say that committee members will scrutinise your sensitivity tests closely. Believe it or not, other witnesses and sources for by those that you cited have an even more pessimistic—if not in some cases a cataclysmic—view of those matters.

In his evidence to the committee, Mr Ede highlighted a number of concerns about the safety

of trains and passengers using the airport tunnel that is proposed as part of EARL. He raises specific concerns about having a junction in a tunnel. Can you briefly summarise how or whether the promoter has addressed those concerns?

**Susan Clark:** One of the members of the next panel will be able to address those issues in detail. In summary, we have had a number of meetings with Her Majesty's railway inspectorate over the course of the development of the project. We have a letter of no objection to concept from HMRI. The inspectorate has worked with us and it is happy about the concept, including the crossovers within the tunnel. Gary Coutts will be able to provide much more detail about issues such as the engineering, the legislation with which we need to comply and the risk assessments.

**Mr Gordon:** Although crossovers in tunnels are not unusual, an earlier witness claimed that the promoter plans to have a junction in the tunnel. Is that correct?

**Susan Clark:** That is correct. We can provide details on the risk mitigation that we have built in and on similar schemes that have been developed elsewhere. For example, London crossrail is being developed with crossovers within tunnels.

**Mr Gordon:** With respect, a crossover is not a junction. Is the railway inspectorate comfortable thus far with the concept of a junction in a tunnel?

**Susan Clark:** Yes.

**The Convener:** That brings to a conclusion this part of our questioning. I thank Mr Haugen and Mr Inman for their attendance this afternoon. We will now have a slight pause as they are replaced by Gary Coutts, who is railway engineering manager for Scott Wilson Railways, and Alan Somerville, who is commercial manager for heavy rail at TIE.

In her answer to Charlie Gordon's question, Susan Clark said that Gary Coutts could provide us with more in-depth information on the issues that were mentioned. Perhaps we can start on that point.

**Susan Clark:** Okay. Having phoned my friend, I will now let him take the committee through the difference between a crossover and a junction and some of the EARL project's technical design features to mitigate risks.

**Gary Coutts (Scott Wilson Railways):** The difference between a crossover and a junction is, as Charlie Gordon knows—

**Mr Gordon:** Yes, I know this.

**Iain Smith:** But the rest of us do not.

**Christine Grahame:** The rest of us are waiting. We have had the trailer; now we want the film.

**Gary Coutts:** A crossover allows a train to pass from one single line to another, usually adjacent, single line. A junction allows two converging lines to join. Operationally, the potential for a conflicting move—that is, the potential for the train to be in the path of another train as it moves over on to the other line—exists at both crossovers and junctions. We apply the same safety principles to both situations.

The need for the proposed junction in the tunnel is a consequence of bringing the Fife services directly into the airport from the Dalmeny junction on the existing Fife line, but the topography of the area is quite challenging. The tunnel will be laid predominantly in a flood plain adjacent to the River Almond. To get access to the Fife line, we will need to go through a fairly large hill so that we can get to the Dalmeny chord.

Operational constraints and initial timetabling work mean that we want the link between the Dalmeny junction on the existing Fife line and the connection with the airport line in the tunnels to be as short as reasonably practicable. We also want to provide a relatively medium speed. Initially, we were looking for 80mph on the Fife line and 50mph in the tunnel system and we have managed to achieve 75mph on that line with 50mph in the tunnel. As a consequence of all those technical and topographical factors and as a result of the requirement to accommodate the second runway, it will be necessary to locate the junction in the tunnel.

We have recognised that risk assessment and other processes will be gone through. We have undertaken a qualitative risk assessment of the preliminary layout of the junction that we have presented and we have sat down with Network Rail to do a preliminary risk assessment of that. In addition, we have done extensive work on a qualitative risk assessment of fire and ventilation controls in an emergency. Both those streams of work will be developed into a more quantitative analysis, and the findings of those exercises will be enshrined in the safety management system. That will be incorporated in the railway safety case, which requires approval from HMRI. As Susan Clark mentioned, HMRI has said that it does not object in principle to the concept of EARL, and it is aware of our proposals.

I mentioned the risk assessment of the layout that we have undertaken. Network Rail has also been involved in preliminary risk assessments. HMRI, Network Rail and the train operating companies will continue to be involved in the development of the scheme and particularly in the development of the railway safety case.

**Mr McGrigor:** After the Ladbroke Grove inquiry, John Prescott reminded people that the first, second and third priorities in the railway industry

should be safety. The proposed design incorporates a tunnel for diesel-powered trains, which is apparently without precedent. Does that put safety first?

**Gary Coutts:** You are right: safety has been enshrined in development so far. We have complied with the guidance and procedures in development so far and will continue to do so. As I said, work will be undertaken to develop the railway safety case as well as the technical approvals for the scheme, which will require approval from HMRI to bring the system into operation. We will continue to work with HMRI and Network Rail on developing the safety case and the technical approvals. As I said, we have complied with requirements so far and will continue to do so.

**Mr Gordon:** For completeness, I ask for a rough timescale within the ambit of the proposed EARL scheme for when the railway safety case is expected to achieve clearance and for when HMRI will in effect sign off the design.

**Susan Clark:** We will go through incremental stages of design sign-off. We have just started work on the next phase of design, which is an outline design, and we aim to finish that work by December this year. HMRI, Network Rail and BAA will be involved in that next phase of design, after which the design will move forward into detailed design. At each stage, we will work with Network Rail, BAA and HMRI. We will have to appoint a notified body as part of the new interoperability regulations to approve EARL before it goes into service.

**Mr Gordon:** If HMRI does not sign off the design, that is a show-stopper.

**Susan Clark:** HMRI has given us a letter of no objection to concept.

**Mr Gordon:** Yes, but we are at the beginning of a lengthy and complex design process.

**Mr McGrigor:** My questions are about route selection and alternative options. Alternatives to EARL appear to have been considered on the basis of the north Edinburgh rapid transit feasibility study, which did not explicitly examine heavy rail. How confident is the promoter that using the NERT study is a fair way to assess the viability of other options?

**Susan Clark:** I will probably pass over to Paul McCartney in a second. The promoter is confident that the proposed runway tunnel option for EARL meets the policy objectives that are set out in the promoter's memorandum.

16:00

**Paul McCartney:** A few years ago, the Scottish Executive considered several options for the

alignment to the airport, including the Fife spur, the Edinburgh spur, a surface diversion, diversion of the Edinburgh to Glasgow route and a runway tunnel. Those options went through a fairly robust and rigorous process that used the Scottish transport appraisal guidance. There was a two-part process that involved qualitative analysis to narrow down the options to a shortlist, which was considered in much more detail using quantitative analysis.

To respond to something that was mentioned earlier, options that included a station that was not at the terminal were not considered because it was thought at the time—and the research evidence suggested—that a service that did not stop at the terminal but involved a further link into it would introduce a significant interchange penalty, particularly for people who were carrying luggage, which would probably mean that they would not use the service. Such options would also increase journey times. It was also thought that business users, who represent a large number of those who use Edinburgh airport, would be discouraged from using such a service. As a result, options that included a station at the terminal were considered.

Throughout the process, the options were quantified against several criteria: economy, accessibility, the environment, safety and integration. I will summarise why the runway tunnel option was considered and the existing option arrived at. The highest level of connectivity—

**The Convener:** I am sorry to interrupt you in full flow, but would you take us back a step and explain why the heavy rail option was preferred to light transport alternatives?

**Paul McCartney:** It has been mentioned that the objective of providing a rail link between Edinburgh and the airport is not only to link those two places, but to connect the airport to the national rail network, which will provide national benefits. It was therefore decided at an early stage that a heavy rail option should be considered, as the other options would not achieve that objective. The aim is not to provide a short connection between Edinburgh and the airport, but to connect the airport to the rest of the country and distribute economic benefits. Since the options were considered, several studies that have looked at the tram, bus and light rail options have been produced on which the other members of the panel can elaborate. Those studies have agreed that the desired objectives would not be met with those options.

Does that answer your question? I do not know whether I have gone back far enough.

**The Convener:** Committee members understand that we are talking about a national rail

scheme, linking the airport with the rest of Scotland, the desire for a transport hub and so on, and we will ask more questions about that. You said that early on a heavy rail option was considered to be the best way forward. I was trying to get at what appraisal was given to other schemes, not to deliver the national network link, but a transport link to Edinburgh airport.

**Paul McCartney:** Are you talking about other modes of transport?

**The Convener:** Yes.

**Paul McCartney:** The consideration was qualitative. Whether other options could achieve the desired objectives was considered, but not in detail. The other options were rejected early in the process. The objective was not to reduce congestion in the west of Edinburgh, for example, but to bring national benefits to Scotland. Is that okay?

**The Convener:** Yes.

**Paul McCartney:** I was talking about the runway tunnel option. That option provided the highest level of connectivity to nine cities and major towns in Scotland. Earlier, we heard about the benefits of connectivity to 62 stations in 14 local authority areas and 3.2 million people. The option provided the greatest national benefits—which is what the scheme was intended to provide—and the greatest net benefits. The net present value, which is arrived at by comparing total benefits and total costs, was £250 million. The option also provided the greatest accessibility across the country and the greatest decongestion benefits in the local area.

Another important element of the decision was the fact that a number of the other options would have resulted in increased journey times for people who were not using the airport. At the time, the Scottish Executive had—and indeed, still has—a firm policy of encouraging a modal shift to get people out of their cars and onto public transport, and it was felt that introducing a scheme that increased journey times for commuters would go against the grain of that policy. All those factors led to the selection of the runway tunnel option.

**Mr McGrigor:** In paragraph 492 of your response, you say that the fact that the north Edinburgh rapid transit feasibility study “concluded that only a” light rail

“solution ... was capable of achieving good modal shift”

lent support to EARL. Given that, due to funding constraints, only part of the tramline network will now be built, how confident are you that a similar situation will not arise with EARL?

**Susan Clark:** Are you asking whether we are confident that no funding constraints will emerge that mean that only part of it will be built?

**Mr McGrigor:** Yes.

**Susan Clark:** I am sure that when he gives evidence on 27 June the minister will talk about funding. However, EARL's benefits will be delivered by implementing the whole package, as that will provide overall connectivity and allow the project's economic benefits to be dispersed throughout Scotland.

**Marwan AL-Azzawi:** This question also relates to an earlier witness's comments on optimism bias and inflation factors. In the figure for capital costs that has been bandied about in the written evidence, we have allowed for risk, contingency and optimism bias. Indeed, the promoter asked for those cost inclusions. As Susan Clark has pointed out, despite all that, the business case is still positive.

**Mr McGrigor:** How can the NERT study, which led to the selection of the tram option, lend support to the construction of EARL on the one hand but on the other enable the promoter to claim that EARL and the tram scheme support different travel markets?

**Susan Clark:** I shall begin by reiterating the benefits of both projects and then one of my colleagues will talk about the NERT study.

As we have already explained, the tram and EARL will provide complementary services. The tram will provide a service from the city to Edinburgh airport, whereas EARL will connect the airport with the rest of Scotland. Bringing both services together at the airport will allow people who are coming into Edinburgh—say, for employment purposes—to interchange with the tram and connect with some of the locations that it serves.

**Marwan AL-Azzawi:** In its consideration of a number of different routes and options, the NERT study identified a number of common themes including segregation, modal interchange, benefits for capacity, frequency and reliability and improvements to accessibility as well as the usual benefits for ridership quality, passenger comfort and convenience and so on. The study concluded that such themes are not dependent on geography but can be easily transferred to another location if the proposed scheme has the same mix of ingredients. As a result, the NERT study is quite applicable to EARL, as the project contains not only all those characteristics but—dare I say it—others.

**Mr McGrigor:** I return to tunnel safety, which is an important point. Railway tunnels are inherently dangerous places. What do you say in response to the accusation that has been made in previous evidence that, because you will have a junction in the tunnel, it is clear that common sense and the simple approach have gone out the window and

been replaced by cleverness and reliance on technology and procedures for safety?

**Susan Clark:** I reiterate the fact that we have the letter of no objection from HMRI. We are also complying with current legislation and “The Railway Group Standards Code” to ensure that we manage the risks that are associated with the junction in the tunnel.

**Mr McGrigor:** Is it cheaper to have the junction in the tunnel?

**Susan Clark:** There is a range of issues to consider. Gary Coutts has tried to describe the complexity of the surrounding topography, line speeds and ensuring that we get a timetable that fulfils the project’s overall aspirations. We have not assessed cost as a driver to put the junction in the tunnel.

**Gary Coutts:** To echo what Susan Clark says, as I outlined, the technical constraints of the local topography are quite challenging. To move the junction further north would impact directly on the running times, as it would make the line to Fife longer and slower. Constructing that newer, longer line would also have environmental impacts. One of the advantages of the north-eastern line that we propose is that it uses part of a former railway. If we were to move the junction further north and reduce the line speed, we would have to generate an entirely new railway.

On balance, we have to bring risk down to as low a level as is reasonably practicable. We believe that the work that we have undertaken thus far—assessment of the junction layout and the fire and ventilation issues—has taken the project to a stage at which we are ready to start to prepare a railway safety case. As has been mentioned, HMRI has made no objection to the concept and, at the moment, there is certainly no reason why a railway safety case approval would be withheld.

**Christine Grahame:** I am looking at the figures in paragraph 551 of your response—the Sinclair Knight Merz report. Such calculations are not my forte, but I think that I have understood this one. The present value of costs for the runway tunnel option is £427 million or thereabouts and the present value of costs for the surface diversion option is about £133 million—that is a heck of a difference. The net present value for the runway tunnel option is £250 million or thereabouts and, for the other option, it is just about the same—there is not a huge difference—but the benefit cost ratio is substantially different: 1.59 for the runway tunnel and 2.88 for surface diversion. How can the runway tunnel option be value for money when there is such a difference?

**Paul McCartney:** Those figures demonstrate that both options are economically viable because

the benefits that they generate are greater than their costs. The net present value—which is the total benefits minus the total costs—is the same for both, so they both generate significant net benefits. The benefit cost ratio for the surface diversion option is higher than that for the runway tunnel option, which shows that, for each pound of costs, we would get greater benefits back. It is important to emphasise that a range of aspects is considered in the appraisal apart from those quantified elements.

16:15

**Christine Grahame:** I have looked at those too. At paragraph 547, you list other benefits that will come. You compare the decongestion benefits between the two alternatives, and the tunnel comes out better, but that is over 30 years.

**Paul McCartney:** Yes. What those figures do not capture are issues such as the fact that the surface diversion option results in increased journey times for those people who are not using the airport but travelling through. The Scottish Executive felt at the time that selecting that option would send out the wrong message. Increasing journey times for people commuting in from Fife to the centre of Edinburgh would go against the grain of the Executive’s policy of trying to encourage modal shift and would probably result in those commuters getting back into their cars.

It was also felt at the time that the benefits generated by the surface diversion option are local, not national. You can see that the figure of £680 million for the benefits generated by the runway tunnel option is much larger, so the benefits are spread across the country. Again, one of the objectives of the scheme was to try to ensure that benefits would be generated and would accrue at national level, not just locally in Edinburgh and the surrounding area.

**Christine Grahame:** Paragraph 545 of your submission gives the example only of a lengthy rerouting of the Glasgow Queen Street to Edinburgh Waverley service. Are you saying that the surface option would have meant that lots of other services would have had longer journey times too?

**Paul McCartney:** The main reason why the runway tunnel option was selected, rather than the surface diversion option, was that the surface diversion option would have increased journey times significantly for a number of people who were not using the airport.

**Christine Grahame:** Do we have information on that somewhere in our papers? Have I missed some information about the knock-on effect of the surface alternative on all the journey times?

**Susan Clark:** I am not sure that you have that information, but we can provide it.

**Paul McCartney:** We can ensure that it is sent to you.

**Christine Grahame:** I understand that the Sinclair Knight Merz report concluded that the surface diversion option might be able to attract significant private sector involvement, whereas a runway tunnel will need a lot more public sector funding. On that basis, if I were picking one option, subject to what we find out about journey times, the surface diversion option seems to be a better deal—the more private money that can be levered in, the better for the Parliament.

**Paul McCartney:** At the time, the decision was taken because of transport policy, because selecting the surface diversion option would result in increased journey times for people, which would send out the wrong message.

**Christine Grahame:** Do we know how much private sector funding might have been levered in if the surface diversion option had been chosen?

**Paul McCartney:** I do not know. I do not have that information.

**Susan Clark:** I do not think that any analysis was done of how much private sector funding might be found. It is important to note that that option was discounted because of the significant increases to journey times, particularly on the Edinburgh to Glasgow route.

**Christine Grahame:** I understand that. What you are saying is that the main reason for not going for the surface diversion option is the significant increases on the Edinburgh to Glasgow route and on other routes. Other things being equal, if nothing had altered, the surface diversion route would have been an option. It is a lot cheaper and you might have levered in private funding. Am I misunderstanding you?

**Paul McCartney:** No, your summary is right.

**Mr Gordon:** I would like to continue on that point, if any of the witnesses can assist us. Given the operational disbenefits of a surface diversion option, why did the SKM report suggest that that option would lever in greater private sector financial involvement? That seems counterintuitive.

**Susan Clark:** I do not have an answer to that question. I do not know whether Paul McCartney does. We could look into it and come back to you.

**The Convener:** Christine Grahame has another question.

**Christine Grahame:** I am getting muddled up thinking about the figures. The alternative schemes that the Scottish Association for Public

Transport and TRANSform Scotland have put before us would be cheaper and would not entirely preclude the creation of an Edinburgh airport hub but would allow one to be developed in the future. In how much depth did you examine those schemes in the appraisal process? Those organisations seemed to suggest that their proposals were dismissed pretty quickly.

**Susan Clark:** We have reviewed in detail the Turnhouse option, which would involve putting a station at Turnhouse on the existing Fife line and linking that with the Edinburgh to Glasgow route through a chord from the Dalmeny line. We have produced a full report on the costs of that option, have done timetabling analysis on it and have carried out a STAG level 1 appraisal.

I do not think that the Gogar option that is emerging is too different from that option in respect of the infrastructure that would need to be provided. The main difference is that because the Gogar option would be nearer to the tram stop, there would be more of an opportunity to create an interchange. The promoter did not dismiss the Turnhouse option. We studied it rigorously and produced a report that is available on our website.

**Christine Grahame:** You said, “the Gogar option that is emerging.”

**Susan Clark:** The Gogar option has emerged from recent discussions with the SAPT about creating a station that would be nearer Gogar and establishing an interchange through the use of a people mover out to the airport. From the initial discussions that we have had, our understanding is that the concept does not differ greatly from the Turnhouse option, so the costs, impacts and so on will not be strongly dissimilar from those of the Turnhouse option.

**Christine Grahame:** You will not be doing a separate appraisal of the Gogar option.

**Susan Clark:** We will consider by how much it differs from the Turnhouse option and assess whether we need to do a full appraisal of it. If we find that the two options have significant similarities, we might be able to apply the STAG appraisal that we have done for the Turnhouse option to the Gogar option.

**Christine Grahame:** When would such an appraisal of the Gogar option be available?

**Susan Clark:** We will have to consider how long it might take us to review the differences between the two options and, if necessary, to conduct the appraisal. We can come back to the committee with a timescale.

**Christine Grahame:** That would be useful. We are considering the option that is in the bill, but other proposals are coming in. We are assessing the value for money of the promoter's proposal to

achieve something that we would all like to achieve.

**Susan Clark:** Absolutely. One of the important points about both the Turnhouse and the Gogar options is that they would remove accessibility from Edinburgh Park. This morning, Keith Rimmer of City of Edinburgh Council told us that the Waverley route would make not just the city centre but Edinburgh Park accessible from the Borders for employment purposes. The Gogar option and the Turnhouse option would not allow Dunblane services that went via the airport to stop at Edinburgh Park, which would mean that any through services from Dunblane to the Borders could not stop at Edinburgh Park. The Gogar and the Turnhouse options would not provide such accessibility and connectivity.

**The Convener:** It might be helpful if you could provide the committee with a summary of the key advantages and disadvantages of the Gogar option. You have said that it is very similar to, but not exactly the same as, the Turnhouse option. A brief summary of the similarities, the disadvantages and the advantages would help us to get our heads round the issue.

**Susan Clark:** We could provide that.

**The Convener:** Have you finished, Christine?

**Christine Grahame:** Yes, I think that I have run out of steam.

**Iain Smith:** We will never see the day when Christine Grahame has run out of steam.

I have a few questions about the Edinburgh airport surface access model, which is referred to in the promoter's response from paragraph 512 onwards. Has the robustness of the new model's findings been tested? For example, have you inputted into it actual data from before 2006 to find out whether it could predict accurately the current situation?

**Susan Clark:** I will pass that question on to our in-house expert, Marwan AL-Azzawi.

**Marwan AL-Azzawi:** The short answer is yes. The model was developed using existing data and historical trend data. It was based purely on industry-standard procedures and tried and tested methodologies—there was nothing new in it. As part of Government procedure, it is a requirement to carry out a validation and calibration exercise to examine the model's robustness, make adjustments and test the model against independent data to ensure that, within certain tolerances, it represents the situation on the ground. That exercise must be carried out before any future forecasting is done.

**Iain Smith:** You say that the modelling conforms to industry standards, but has it been tested independently?

**Marwan AL-Azzawi:** Yes. A working group was set up in TIE that was comprised of people from TIE, the consultants who were developing the model and other external consultants who were advisers to TIE but who were independent from the people who developed the model. Those advisers examined, scrutinised and tested the modelling process. That is standard practice.

**Iain Smith:** According to table 52.2 in the response, which is on the geographical distribution of EARL trips, the modelling predicts a 0 per cent distribution of EARL trips for west Edinburgh. Why is that?

**Marwan AL-Azzawi:** That is for the area of west Edinburgh that is within the bypass. The reason is mainly that there are no stations in that sector.

**Iain Smith:** That is a reasonable explanation. I thought that that might be the answer.

**Christine Grahame:** Perhaps people could jump from a moving train.

**Iain Smith:** How was the catchment area for EARL determined and what is the predicted percentage of people in the area who will use EARL?

**Marwan AL-Azzawi:** The catchment area that we used in the model covered as wide an area as possible to match the catchment area of the airport. In the modelling, we exploded certain parts of the catchment area to improve connectivity, even to places such as England. For example, people travel from Newcastle to use the airport. Therefore, the catchment area was as close to a national one as we could get. It may interest the committee to know that, when we considered population connectivity in the model, we found that about 95 per cent of the population coverage in Scotland was captured.

**Mr McGrigor:** Paragraph 519 of the response provides a breakdown of the proportion of revenue for the bus shuttle, travelator and driverless shuttle options compared with the runway tunnel option. Can you provide the proportion of revenue as a percentage of each option's capital cost? Can you also provide the net present value and benefit cost ratio of each option?

**Marwan AL-Azzawi:** I cannot do that today, because I do not have the figures to hand. The analysis was carried out in the STAG part 1 report, in which we did not carry out a detailed and quantified transport economic evaluation. We followed the methodology for part 1 of the STAG process. As Paul McCartney said, that issue has a qualitative element. However, the figures show clearly that if EARL produced £1 of revenue, the bus shuttle would produce about 30 per cent of that. Therefore, the bus shuttle would not give anywhere near the value for money that EARL

would give. We followed the normal STAG process.

**Mr McGrigor:** Why did the promoter choose to examine only the Turnhouse option, rather than the option of bus links from South Gyle and/or Edinburgh Park railway stations?

**Susan Clark:** I will answer that initially. The reason why the promoter did a detailed study of the Turnhouse option was because that option emerged during the consultation phase.

16:30

**Marwan AL-Azzawi:** We considered sensitivity tests for buses. I said in my evidence last week that we carried out a sensitivity test in the modelling to see what would happen if the station were to be developed into a multimodal interchange with bus feeder services. The additional benefits that would accrue were identified. In keeping with Government procedure, there had to be a robust business case assessment that said what would happen, on a conservative platform, rather than trying to build things in. The central case in the economic appraisal does not allow for consideration of the additional benefits that we would get over and above those that would accrue from the current proposals.

**Mr McGrigor:** In comparing the Turnhouse option with the runway option, measures such as benefit-cost ratio and net present value were compared over 60 years. What are the respective figures at 10 and 20 years?

**Marwan AL-Azzawi:** It is not Government procedure to assess those things in such short time periods. With such major projects, the benefits take a certain amount of time to accrue. I do not think that it has ever been Government policy to assess benefits over such a short time.

**Paul McCartney:** The methodology outlined in the guidance is clear that assets should be appraised over their lifetime. The capital investment in this case lasts much longer than 10 years.

**Mr McGrigor:** I see.

**Paul McCartney:** I am not sure what appraising the assets over 10 years would tell us because, at the end of the 10 years, there would still be what is called an opportunity cost, which is the capital value of the asset at the time. That would have to be taken into account in any appraisal.

**Marwan AL-Azzawi:** It might help the committee to know that certain parts of the EARL project have a much longer lifespan than 60 years; they will be around for 100 years at least. One could argue that even 60 years is quite a short period for a scheme such as this.

**The Convener:** I want to return to the evidence that we heard from the SAPT. What consideration was given to interlinking the rail and tram, which we heard about this afternoon? What is your opinion of the viability of the SAPT's proposal to use South Gyle station for the Glasgow to Edinburgh trains to access the airport, thereby doing away with the need for the Roddinglaw to the airport connection?

**Susan Clark:** I will pass over to Alan Somerville, who has been working with the SAPT on its proposal.

**Alan Somerville (TIE Ltd):** Before I come to that, I will explain how we came up with the option in the bill. About three years ago, we set up a committee, which TIE chaired, involving the Scottish Executive—before Transport Scotland was set up—Network Rail and First ScotRail. We tried to evaluate the minimum infrastructure enhancements that would be required to deliver services via the airport. SKM speculated that four-tracking would be required between Saughton junction and the Edinburgh Park to Roddinglaw area. We considered additional crossovers between the north and south lines. We even got to the stage of considering four-tracking the Saughton area, which would have meant not only knocking down people's houses but knocking about the new Edinburgh Park station that had just been opened and interfering with the city bypass. We found that an unattractive option.

The option before you now is preferable. We will achieve our four-tracking, although the extra two tracks will now go to the south of the airfield. If we had gone for the SAPT option, there would still have been a requirement to enhance an area of South Gyle. No one considered that to be a practical alternative. The SAPT's option would have meant three-tracking in the immediate area of South Gyle for a short distance. Although Tom Hart is sceptical about it, our view is that there would have been some demolition of private property and some encroachment on other properties. I am referring to the Comet superstore, the school and the playing fields. Various pieces of land would have had to be acquired. The £22.5 million of additional costs comes in because of that level of difficulty.

My concern was much more about the commercial aspects of the SAPT proposal. Tom Hart said that our AEA study came up with a workable timetable and that performance was not adversely affected. However, that was very much based on the one scenario that we tested. What was not mentioned was the fact that, to get the timetable to work, AEA had to take out the South Gyle stops from the Fife trains that go via the airport. Two existing services between Fife and South Gyle also had to be taken out of the

timetable. We considered that to be an unacceptable penalty.

Tom Hart acknowledged that services from Dunblane, Bridge of Allan, Stirling, Larbert, Camelon and Falkirk Grahamston would no longer be able to access Edinburgh Park station. ScotRail figures show that business there has been growing steadily. I commute from Polmont and every day I see the growth in the number of people who get off at Edinburgh Park. The SAPT's view is that it is convenient for people who travel in each morning to get off at the airport and get on a tram. If that meant me losing half an hour in my bed in the morning, I would not like it very much.

The SAPT proposal involves an additional interchange and a time penalty. Not only would it result in the loss of the connection between South Gyle and the airport and between Edinburgh Park and the airport, it would add an average of one minute to Edinburgh to Glasgow journey times. All through the timetable development process we have striven to maintain the Edinburgh to Glasgow turnaround time, not only because any reduction in turnaround time at the two termini would inconvenience many millions of passengers, but because it would restrict the ability to recover from any perturbation in the operation of the service. The latter is particularly important to ScotRail. Given that turnaround averages about eight or nine minutes at the moment, a minute is significant.

As the SAPT rightly said, we did not test the revenue costs. However, we know that introducing extra transitions or modal shifts from train to tram or train to train costs revenue. The journey time on the Edinburgh to Glasgow line is a significant factor, as is any reduction in turnaround time and the cost and disruption to residents in the South Gyle area. For all those reasons, we decided that the proposal did not meet the objectives that are set out in the promoter's memorandum.

**The Convener:** Thank you for that answer. I am sorry, but I have to ask you to repeat part of it, because I missed something. You mentioned Fife and I pricked up my ears. You said that the SAPT proposal would have an effect on Fife trains and you mentioned South Gyle. Could you explain that again?

**Alan Somerville:** It is an artifice, if you like, arising from the way in which AEA made the timetable fit. The only way that it could do that without giving rise to long-term performance implications was to remove the connection between the airport and South Gyle. The airport stopping trains from Fife would go straight through South Gyle station. Because AEA was trying to achieve a balanced timetable, it removed the stop on the northbound route. The proposal would mean that people who work and live in the South

Gyle area would suffer a loss of utility in terms of accessing Fife and the north.

**The Convener:** So the proposal would make it much more complicated for us in terms of which train we would get on and so forth.

**Alan Somerville:** Yes. It is ironic that one of the few aspects of the scheme that John David Ede approves of is the flying junction at Roddinglaw, which is the thing that the SAPT wants to take away.

**The Convener:** Okay. Thank you.

**Iain Smith:** I return to the issue of the flying junction at Roddinglaw. In his objection, John David Ede says that the existence of flat junctions at all the other points in the scheme would be likely to lead to performance problems over time. In particular, he says that, if a train were delayed somewhere in the system, it would cause serious knock-on effects because of the number of flat junctions. Have you looked at that?

**Alan Somerville:** I take you back to the beginning of my previous long answer. We approached the problem with the philosophy of going for the minimum enhancement necessary to keep costs down. It would be lovely to have flying junctions everywhere in the country; that would improve performance no end.

There is a history behind the selection of Roddinglaw. There is an element of future proofing in giving the Airdrie to Bathgate line a flying junction; the Executive advised us that it was the appropriate place to have one. For each timetable scenario, we evolved the infrastructure in parallel with the timetable and at each stage we considered the performance implications and capacity utilisation of each stretch. It was judged that Roddinglaw would be essential.

It is worth explaining where we go from here. We developed the timetable on the basis of an indicative slot, where we took the morning timetable—or the peakier of the two peaks—and demonstrated that the infrastructure could cope with it. From that theoretical picture, we have to conform to Network Rail standards and produce a proper working timetable from 6 o'clock in the morning to 10 at night, covering all the trains and reflecting the other major projects that are going on on the network. To do that, we have to leave the methodology that we have used, because it has been bypassed by a German train planning system called RailSys, which Network Rail has adopted. We must now mount our modelling on RailSys.

We will develop our detailed signalling—previous witnesses have discussed the importance of signalling headway. Transport Scotland is trying to assemble a very complicated

jigsaw. It has to develop projects in isolation so that it can make progress, but every so often it has to put them all together to find out if they still fit. When the Airdrie to Bathgate line and EARL are brought on board, along with the links to the Borders railway and the Waverley station improvements, major decisions will have to be made about signalling headways. Network Rail has confided in me that it thinks that it will have to reduce the signalling headways all the way to Inverkeithing and probably out to the west of Roddinglaw or Winchburgh to accommodate all the traffic and provide robustness.

Other things can also be done. After many years, the industry is thinking of putting an intermediate block signal—forgive all this jargon—on the Forth bridge. That would significantly improve the ability to pull trains through that complex infrastructure.

To come back to the question, we will not be left with something with which we cannot deal. We can change signalling headways and we can work on the allowable junction margins. There are different ways to change the timetable to choreograph trains going through the junctions. If it transpires that the system is not reliable, it will not be our call. The regulator sets high-level targets for Network Rail's performance and they are firmly enforced. If the new infrastructure, together with the other major projects, does not adhere to those targets, remedial measures will be taken, which could include the upgrading of other junctions.

Network Rail does not only have the infrastructure issues to contend with; it has to think about capacity and how it is going to regulate the flow of traffic between Edinburgh and Glasgow. There is now talk of further development of the Carstairs line, and there will be the Airdrie to Bathgate line and the Falkirk High route, so there will effectively be four routes between Edinburgh and Glasgow. Transport Scotland is addressing how to manage the demand, whether more trains will have to be introduced and whether the lines will have to be strengthened. Queen Street station has problems with the length of trains. All those things have to be developed in parallel, but levers can be pulled. Our role is to develop the EARL infrastructure model in RailSys to enable real-time simulation of trains. Transport Scotland will run that endlessly as the interaction of all the different models evolves.

16:45

**Iain Smith:** I thought that the rail industry had moved away from pulling levers.

**Gary Coutts:** May I add something on the potential grade separation of the other junctions?

**Susan Clark:** As long as it is quick.

**Gary Coutts:** Yes, it will be quick.

My comment comes from Alan Somerville's work on timetabling and performance and it reflects the Airdrie to Bathgate project. The Roddinglaw grade-separated junction will be built on a relatively unconstrained greenfield site. Putting in grade-separated junctions at the other locations—particularly Gogar, Dalmeny, Winchburgh and Kirkliston, where there is proposed development to the north—would have much bigger environmental impacts and there are technical constraints due to the existing infrastructure. Roddinglaw is probably the least constrained site and it is the best place to put the junction.

**The Convener:** Before we conclude, I ask Susan Clark whether she has other comments that have not been covered in today's evidence.

**Susan Clark:** I just want to highlight the transport benefits that EARL will deliver. One of its clear benefits will be its positive contribution to inward investment and economic growth. In 2004, the Scottish Executive's refreshed "Framework for Economic Development in Scotland"—or FEDS—confirmed that transport underpins competitive business in Scotland and it is a prerequisite to successful enterprise. That can be achieved only through an integrated package of measures to improve public transport and encourage people to move to alternative modes of transport. The Scottish Executive's transport policies focus on economic growth by improving the effectiveness of the transport network. EARL will greatly assist in achieving the objectives.

I can let the committee have a copy of the report "European Cities Monitor 2005", which examined major European cities from 1990 to 2005. The report considers the key criteria that businesses think are important when they decide where to locate and it assesses cities against those criteria. More than 500 senior executives from Europe were interviewed as part of the process. It is interesting to note that Edinburgh is not in the top 30 cities. Glasgow is the only Scottish city in the top 30, and it has fallen from 10<sup>th</sup> to 22<sup>nd</sup>.

Paragraph 101 of the promoter's written response mentions the report by York Aviation, which considers the attractiveness of airports and the way in which they facilitate economic growth. It states that 31 per cent of companies that relocated to the area around Munich said that the airport was a key driver for doing so. Eastern connections from Vienna airport have allowed Vienna to attract a number of eastern European headquarters to the city. It is interesting to note that both those cities have rail links to their airports.

The FEDS report also identifies the evident productivity gap that we have in Scotland, which is

a key factor for our economic success. Scotland lags behind the UK in that respect and the UK lags behind some of our global competitors. EARL will deliver significant economic productivity benefits and drive our competitive position. EARL will contribute to our overall productivity and competitiveness, but it will also distribute those benefits throughout Scotland, because it is a Scotland project; it is not an Edinburgh-based project. It will disperse the benefits up to the Highlands, over to Fife, down to the Borders and across to Glasgow.

**The Convener:** Thank you. I am sure that you will be pleased to hear that that concludes our oral evidence taking for today. I sincerely thank all the witnesses who gave up their time to give evidence.

Before I close today's meeting, members will recall that we agreed to invite witnesses to give evidence on social inclusion at our meeting on 20 June. Unfortunately, the Mobility and Access Committee for Scotland is unable to provide oral evidence to the committee. Its representatives work full time in other careers and they cannot commit themselves to any more time off to give evidence on behalf of MACS in June. I note that it provided us with detailed written evidence and I think that members will agree that, in the circumstances, it is reasonable for them not to attend. We will be able to use the written evidence to question the promoter at the appropriate time.

In addition, members will recall that we wanted to invite a representative of social inclusion partnerships to give written and oral evidence next week. Social inclusion partnerships have been subsumed into Communities Scotland, which has nominated the capital city partnership to provide us with written and oral evidence. The capital city partnership is a partnership of key statutory, voluntary and community agencies in Edinburgh that work together to promote social inclusion and achieve social justice for the people of the city. Next week, we will have an opportunity to question the partnership on the bill's social inclusion objectives. I hope that that is acceptable to members.

**Members indicated agreement.**

**The Convener:** I look forward to seeing you all next Tuesday afternoon at 1.30.

*Meeting closed at 16:51.*



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