

# **EDINBURGH TRAM (LINE ONE) BILL COMMITTEE**

Tuesday 14 December 2004

Session 2

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## **EDINBURGH TRAM (LINE ONE) BILL COMMITTEE**

### **12<sup>th</sup> Meeting 2004, Session 2**

#### **CONVENER**

\*Jackie Baillie (Dumbarton) (Lab)

#### **DEPUTY CONVENER**

\*Phil Gallie (South of Scotland) (Con)

#### **COMMITTEE MEMBERS**

\*Helen Eadie (Dunfermline East) (Lab)

\*Rob Gibson (Highlands and Islands) (SNP)

\*Mr Jamie Stone (Caithness, Sutherland and Easter Ross) (LD)

\*attended

#### **THE FOLLOWING GAVE EVIDENCE:**

Graeme Bissett (Transport Initiatives Edinburgh)

Mark Bourke (Transport Initiatives Edinburgh)

Les Buckman (Steer Davies Gleave)

Damian Sharp (Scottish Executive Enterprise, Transport and Lifelong Learning Department)

Nicol Stephen (Minister for Transport)

#### **CLERK TO THE COMMITTEE**

Jane Sutherland

#### **LOCATION**

Committee Room 2



## Scottish Parliament

### Edinburgh Tram (Line One) Bill Committee

*Tuesday 14 December 2004*

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

#### Item in Private

**The Convener (Jackie Baillie):** Welcome to the 12<sup>th</sup> meeting this year of the Edinburgh Tram (Line One) Bill Committee. I apologise to members and the public for the slight delay in starting.

Under agenda item 1, I seek the committee's agreement to discuss in private agenda item 3, which will allow us to have a full discussion of the merits of the written evidence that we have received, and to decide whether we wish to seek further evidence. If the agreement is to discuss those matters in private, it is my intention to publish a précis of our discussion so that people can see exactly what we discussed.

Is that agreeable to members?

**Members** *indicated agreement.*

## Edinburgh Tram (Line One) Bill: Preliminary Stage

10:11

**The Convener:** Item 1 concerns oral evidence on the updated preliminary financial case. I welcome the Minister for Transport, Nicol Stephen, and his official, Damian Sharp. I take it, minister, that you were held up deliberating the removal of tolls from the Erskine bridge—

**Helen Eadie (Dunfermline East) (Lab):** And the Forth bridge.

**The Convener:** I invite you to make an opening statement.

**The Minister for Transport (Nicol Stephen):** I apologise sincerely to members of the committee, the public and others who were delayed as a result of my being held up. I am sorry to say that my discussions had more to do with the Forth bridge than the Erskine bridge. However, for some reason, the journey down was about an hour longer than usual this morning. I apologise for that.

**Helen Eadie:** We need a new bridge.

**Phil Gallie (South of Scotland) (Con):** We should bring back the ferry services.

**The Convener:** Can we get on with it?

**Nicol Stephen:** I note those representations.

I am pleased to give evidence on the general principles of the bill. This is the second time in a week that I have given evidence to a committee that is dealing with an Edinburgh tramline bill. This committee is dealing with line 1, so it is strange that I gave evidence on line 2 first.

I emphasise that the Executive supports the general principles of the bill and I confirm that the Executive wants trams back on the streets—although, of course, some sections of the lines are off-street—and that we are keen to encourage more people to make use of public transport in the city of Edinburgh.

The Executive supports tramline 1 for four main reasons. First, it will contribute to tackling congestion in west Edinburgh as part of the City of Edinburgh Council's wider strategy—excuse me. That is not right. My notes say "west Edinburgh" but they should be talking about north Edinburgh. I suspect that this is a note from last week's meeting that has been pulled off the shelf for this week's meeting.

North Edinburgh is an area of significant economic opportunity and it is important that we support development with sustainable travel choices. The tram will open up a wide range of

employment, education and leisure opportunities to people in Edinburgh. Furthermore, it will offer faster and more reliable journey times and it will encourage more people to make use of public transport.

We have demonstrated our commitment to significant improvements in public transport in Edinburgh by making available £375 million for the modern tram system for the city. We expect Transport Initiatives Edinburgh Ltd and the City of Edinburgh Council to identify and secure the remaining funding with the knowledge of the Executive's commitment to the tram. The scale of our commitment should be an important factor in the council's ability to encourage additional sources of funding from a variety of private and other public sector partners. Our funding is, however, conditional on production of a robust business case. The Scottish transport appraisal guidance assessment and the preliminary financial cases show that the scheme is developing well. Some important work remains to be clarified, but we have made it clear to TIE that we expect progress to be maintained.

10:15

Edinburgh needs and deserves a high-quality public transport network in which tram, bus, rail, cycling and walking all play their full parts. The tramline 1 scheme is an important part of the wider strategy for tackling congestion, which harms the environment and inhibits economic growth. We need to do more to tackle congestion in Scotland. We expect the tram scheme to add to the number of people who travel by public transport and to improve public transport opportunities. It must not be about simply displacing other forms of public transport. We believe that there is clear evidence of the opportunity to grow the tram market significantly and to attract people from their cars as well as from buses.

**The Convener:** Thank you. I will lead you gently into the questioning. In your opening remarks, you said that the £375 million funding is subject to presentation

"of a robust business case."

What do you consider to be a robust business case and when do you expect to receive it, if you have not done so already?

**Nicol Stephen:** The business case is being developed. Damian Sharp will give the committee an indication of progress.

**Damian Sharp (Scottish Executive Enterprise, Transport and Lifelong Learning Department):** We received a draft of the outline business case during the summer, on the basis of which we were prepared to continue to support the

project. The process of developing a full robust business case for such a large and complex project will take the best part of two years. Some of that work cannot be concluded until we know the outcome of the committee's deliberations, but progress is being made in that we have received a draft outline business case. We expect it to be finalised, including the work to which we referred in our written evidence, by spring next year. If it still suggests that the project has a good net present value, that it is still deliverable, that risks and costs are under control and that it is likely to achieve the required patronage, we will continue to support the scheme as the final business case is developed over the subsequent year or so.

**The Convener:** Given the amount that the Executive will contribute, does that give you comfort in relation to the need for flexibility later? Are you comfortable with the process and do you feel that the business case will deliver a firm figure on which to base your calculations?

**Nicol Stephen:** Do you mean a firm figure for the total project cost?

**The Convener:** I mean a figure including the Executive's contribution to it.

**Nicol Stephen:** We have made it clear that we intend to cap our contribution at £375 million, as previously announced. It is already clear that there are significant cost pressures on the current cost estimates. On the public finance accounting procedures, we have to build in what is called optimism bias. When we are assessing the final value of any major project, we must include a calculation of the tendency to underestimate the total cost of the capital project. When we consider the current estimated cost of the two tramlines—which I believe is around £475 million—and add the optimism-bias figure of about 25 per cent, we see that there are significant financial issues to tackle. We have been aware that those cost pressures have been developing since we announced the availability of the £375 million.

We have continued to impress on the City of Edinburgh Council and TIE that it is vital that other sources of capital and revenue be considered in order to meet the cost of the scheme. We have said consistently that it would not be appropriate for us to increase that figure of £375 million, because to do so would impact directly on other areas of the transport budget and on other capital projects that we want to deliver.

Those are issues for the promoter to consider carefully. If risk can be managed out and if the optimism bias can be managed down through ever-more-accurate assessment, we would like to assist the promoter with that important work. However, primary responsibility rests with Transport Initiatives Edinburgh and the City of Edinburgh Council.

**Mr Jamie Stone (Caithness, Sutherland and Easter Ross) (LD):** In paragraph 4.3 of your response, you outline a list of issues on which you expect progress to be made. I would like to know two things. First, why did you see those issues as being important? Secondly, what progress has been made on them?

**Nicol Stephen:** Damian Sharp will talk a bit about progress.

In any major capital project, it is important that those issues are addressed; that is especially important in tram projects. We have seen elsewhere in the UK the difficulties that can occur with tram projects, which have been highlighted as potential problem areas. We are determined not to repeat the mistakes of the past and it is important that we show confidence in tram projects and in the ability to deliver them on time and on budget. We must also ensure that their revenue costs are appropriately covered. To do that, it is vital that those issues are fairly tackled so that we are able to give a full and thorough response. That is important not just for the funders—the Scottish Executive being the majority funder—and the Edinburgh Tram (Line One) Bill Committee, but for the future success of the scheme. Between us we must, if we are to approve the project, ensure a sustainable, effective and efficient long-term tram system for the city of Edinburgh. Mistakes have been made. We should be clear about that and we should understand those mistakes and learn from them.

What was the question on progress?

**Mr Stone:** I would like to know why the issues in paragraph 4.3 of your response have been highlighted and what progress has been made on addressing them.

**Damian Sharp:** Those issues were raised in the National Audit Office report as being critical to the success of tram schemes, and TIE has identified them as critical issues in response to that report. We agree with TIE that progress on those matters will lead to a reduction in risk and to greater certainty about costs. If they cannot be sorted out and controlled, that will be known at an early stage. We have every reason to believe that they will be sorted out, but they are significant.

There have been discussions on all those issues, and we expect an intensive period of discussion between the Executive and TIE officials during January and February to drive things on. We have had some discussions on the procurement strategy and we have considered the options. We expect more work to be done on that in January and February. I know that some of the design development is going on, although I have not been involved in that, and that quite a bit is being done on the third-party funding

contributions. The City of Edinburgh Council has been considering the means of capturing planning gain from developments near the tramline, and work has been continuing on that.

I know that Lothian Buses plc and Transdev Edinburgh Tram Ltd, the preferred tram operator, have been meeting to discuss practical ways of ensuring that the tram adds value and that it does not just take people off the buses and on to the trams, but produces a better public transport network. I know that those discussions have been going on extensively and will continue over the next three or four months.

**Nicol Stephen:** Two points are worth emphasising. First, a new company has been established by the City of Edinburgh Council to bring together the trams and the bus operations. That is an important development.

The other point is that, as Damian Sharp mentioned, Transdev has been appointed as—I suppose this is the best description of its role—the operator-in-waiting. The fact that it has been appointed at a very early stage marks the project out from other tram projects. Getting the experience of an organisation such as Transdev, which obviously has significant experience of operating trams, at an early stage will be vital for the development of a robust business case and a robust financial model for the project.

**Mr Stone:** What are your views about the economic value of the scheme? Ove Arup & Partners Scotland Ltd has put a question mark over whether the net present value of £40 million and the benefit-to-cost ratio of 1:2.1 represent a particularly strong case. What are your views on the economic value of the scheme, particularly based on those figures? Any small change in revenue could throw the whole thing out. How robust are you on that?

**Nicol Stephen:** The general point to make is that in our assessment of the benefits of public transport projects it is still the case that investment in public transport projects often compares poorly with the assessed benefit of investment in roads projects. As you know, in the overall transport budget we are deliberately shifting our investment towards public transport. We aim to invest 70 per cent of the transport budget in public transport schemes. That is a big shift from the late 1990s, when only about 25 per cent of the transport budget went to public transport schemes. All the rest was spent on roads.

We carry out an assessment of all the public transport projects that we support. It is ultimately for Scottish ministers to decide whether to invest in a project, but we have tended to place a great deal of reliance on economic scrutiny and on value-for-money assessments. We have also

considered the net present value figure. If the net present value figure is questioned by independent consultants, we would examine the matter carefully before reaching a final view on the proposal based on the final business case. It may well be the case that other forms of investment—most likely in a road scheme—would have a better benefit-to-cost ratio, but we have made a deliberate decision to increase investment in public transport projects.

In respect of the STAG process, which is a relatively new process, we may need to review continually how we assess public transport projects in this country. We may need to review how we assess environmental benefits, congestion benefits and all the positive benefits that arise from investment in public transport projects. We must establish whether we are getting the balance right between assessment of those benefits and assessment of benefits in respect of speed of traffic flow for roads projects. That balance may change over time, but currently if we get a positive net present value and a positive benefit from public transport projects we are generally inclined to try to support them.

That is the hurdle that we set for ourselves. As you know, we want to do more public transport projects—not only tram projects, but rail projects.

10:30

**Phil Gallie:** You seem to be saying that, regardless of whether the tram can stand on its revenue forecasts, you want to go ahead in any case because of public transport policy. If there is a shortfall in revenue, who will pay? Will it be the Scottish Executive or the Edinburgh council tax payer?

**Nicol Stephen:** The short answer to that is that the risk will rest with the promoter, which is the City of Edinburgh Council, which means that if there were to be a profit—the current prediction—the surplus would fall to the organisation that was responsible for the project, as would any deficit.

I should clarify one important point, which is that we place a great deal of importance on the revenue projections' being accurate. Projections that show a surplus are part of the net present value and the value-for-money calculations for the project. If they were not credible, that would be a matter of serious concern for us. If there were a negative net present value, we would need to consider that seriously.

**Mr Stone:** I asked you about the fact that Arup has questioned the strength of the case in relation to the economic value of the scheme, and you have just talked about how serious the situation would be if there were a negative net present value. Does that mean that, ultimately—in a worst-

case scenario—the Executive could withdraw the funding?

**Nicol Stephen:** We have always said that our provision of the £375 million of funding is subject to analysis of the final business case. We see nothing at the moment that would start alarm bells ringing or that would suggest that the positive net present value will shift to a negative one. However, if some such thing did happen, we would have to treat that seriously. It would raise issues of value for money in terms of investment of taxpayers' resources and of Scottish Executive funds. We have a duty to manage public funds properly and would therefore examine any significant shift in the financial position or the deliverability of the project. If a major new issue arose, we would of course have to take that into consideration. However, there is nothing on the horizon that causes us such concern.

**Helen Eadie:** When the promoter responded on 12 November to Arup's analysis of the updated PFC, it said that

"final capital costs will be determined only after a competitive market tender."

In the event that bids are unacceptably large compared to current estimates, is there any commitment by the council and the Scottish Executive to proceed with the venture?

**Nicol Stephen:** We all want the trams project to go forward and the Executive has made available significant funding—£375 million—to ensure that it does. In this life, nothing is ever certain, but there is considerable certainty that such funding will ensure that we can have trams in Edinburgh. In the eventuality that you describe, discussions would have to take place about phasing of the project, about which line could proceed first and about the level of other public and private sector funding for the projects.

There will be continuing discussion of those issues during the coming year or two. For example, if tramline 2 is approved, will it be for the whole of the proposed line or might it stop at a particular point in relation to line 1? Will line 2 be built first? There is £375 million of funding available, but what will be the balance of investment between lines one and two? Is line 3 which, as members know, is intended to run to the south of Edinburgh and to the Edinburgh royal infirmary, deliverable under the current funding model or would other sources of funding need to be brought into play?

Those are big issues, but none of them is possible or can be triggered unless the tram bills are approved and there is significant Scottish Executive funding. Everybody recognises that the project requires a big injection of Government funding and it is clear that, given the private bills



procedures that we have for major public transport projects in Scotland, the bills require close scrutiny and, ultimately, Parliament's approval.

**Helen Eadie:** You have pre-empted a large part of my next question, but I will press you a little more. We recognise that, as you say, line 3 will be dependent on a referendum on congestion charging. If either line 1 or line 2 was not passed by the Parliament, would the Executive still provide financial support to the project if there was only one line rather than a network?

**Nicol Stephen:** The assumption behind the £375 million that we announced was that it would fund at least two tramlines. As the costs have grown, the hope that it would fund, or help to fund, a third line seems to be receding. The question is: how much of the two proposed lines can we fund? I do not think that we will resolve those discussions today, but the £375 million from the Scottish Executive is still very much available—provided that the final business cases are delivered in the way we expect. In relation to updated and realistic assessments of the cost of the lines, we must ask whether we will be able to deliver both lines for £375 million plus the additional resources that TIE and the City of Edinburgh Council believe can realistically be found. Those important discussions need to be had and it is clear that they will take place, but I do not believe that we are in a position to give you a final and definitive answer today.

**The Convener:** Can I clarify what you are saying, for my own benefit? It strikes me that you are saying three things to us: first, the £375 million is capped; secondly, significant financial issues remain to be resolved, which will be done through continuing discussion on the business case and modelling; and thirdly, it is possible that Parliament will pass both bills, but the £375 million will fund only one line or part of one line. Is that a reasonable summation?

**Nicol Stephen:** The first two points are fair summaries. On your third point, the £375 million is available. One key to triggering the delivery and building of the lines is the parliamentary approval process, but that is an issue for the promoter to address in due course in consultation and partnership with the Executive. The decision on how the £375 million will be allocated between the two lines is yet to be made. The decision will be based on the views of the committees, Parliament, the updated business case and the current funding situation.

**Phil Gallie:** Given that the environmental study predicts only a 1 per cent reduction in congestion as a result of the trams, please elaborate on your comments that the scheme will reduce congestion? Section 5.1 of your written submission says that the scheme would have a "major impact" on congestion.

**Nicol Stephen:** Section 5.1 of our submission says:

"The Scottish Executive strongly supports Edinburgh Tram Line One because of the major impact it can have as part of a wider package of measures to address congestion in Edinburgh."

As you have said, the scheme will reduce congestion—

**Phil Gallie:** By 1 per cent?

**Nicol Stephen:** Even a 1 per cent reduction in roads congestion is worth striving for. Our current problem is a growth in congestion through the increasing number of cars on Scotland's roads. Edinburgh in particular has big congestion problems, so it is important to support a scheme that can take literally millions of people away from their cars. All the evidence in other parts of the globe and other European cities is that investment in major public transport projects and new tram projects, along with other measures—it is important to emphasise that it is not one single capital project such as a tramline that will make the difference—can tackle congestion, improve the economy of a city and improve the quality of life for communities. However, I agree that the approach needs to be integrated and we need to reverse the current growth in congestion in every city in Scotland.

**Phil Gallie:** That is fine, but we are talking about Edinburgh tramline 1, and the committee is charged with examining that case virtually in isolation. Section 2.7 of your written submission says that the scheme

"would provide a fast, frequent alternative to many car journeys in the Capital."

Can you explain how tramline 1 will contribute to that, given the geographic concentration on north Edinburgh and the circular route?

**Nicol Stephen:** I do not have all the technical details to which the promoter has access. However, the information in front of me at the moment suggests that 9.44 million people a year will make use of tramline 1 when it is first opened in 2011 and that that figure will rise to about 13.69 million in 2026.

It is estimated that 83 per cent of the initial patronage will be shifted from other forms of public transport and 17 per cent will be shifted from the car, but over the 15 years to 2026 that will change to 76 per cent shifted from other forms of public transport, and 24 per cent shifted from the car. That shows the tram's potential power to attract millions of passengers, almost 25 per cent of whom will be people who have shifted from their car or who are making newly generated tram trips, who would not otherwise have used the bus or other public transport.

Therefore, the tram is able to reach a market that the bus finds difficult to reach. That is not to say that we should give up our efforts to make the bus more attractive and to encourage more people to use buses. However, there is already a good bus network in Edinburgh and many people use the bus every day. One way to lift public transport in Edinburgh to a higher level and improve its image and quality is through the introduction of a world-class, modern tram system.

**Phil Gallie:** Your figures are laudable. If the committee concluded that it would not be possible to attain those figures—let us say that others demonstrated to us that the figures on car reduction were a dream—would that change the Executive's stance on the scheme's funding?

10:45

**Nicol Stephen:** We would consider any of the committee's findings very seriously. As Damian Sharp made clear, our discussions on funding are likely to carry on beyond the duration of the bill's consideration. I give the committee an undertaking that if there were findings that were a cause for concern or that revealed the existence of a degree of over-optimism, the Executive would pay them a great deal of attention, consider them in great depth and respond to them publicly.

**Phil Gallie:** In your written evidence, you state that a key aspect of national planning policy guideline 17 is

"providing the most sustainable way to serve transport needs".

Further to what you have already said, will you explain why you think that tram is the right choice for Edinburgh, as opposed to other alternatives such as guided bus?

**Nicol Stephen:** That is a good question. Every city in Scotland should consider all the different ways in which public transport can be improved. As I have said, we need to do more to raise the image of the bus and the quality of bus services. Much is being done through investment in park-and-ride facilities, bus lanes, new vehicles and raised kerbs to allow for disabled access. Although there has been more investment in buses, we have very little in the way of guided busways. It is possible that the guided busway that is being introduced in Edinburgh might have to be removed to make way for the tram. There are some cities where trams and guided busways can be run together. I want to give serious consideration to that in Edinburgh. If the plans for trams go ahead, I would like Edinburgh to have trams and guided busways and I would like there to be more guided busways in other cities.

We should not think of trams and guided buses as competing for investment. As I have said, if we

are to improve public transport, reduce congestion and get more people to leave their car at home and opt for public transport, we must invest appropriately in trams, in guided busways and other bus improvements and in our rail system. What the balance of the funding should be and the relative importance that should be attached to buses, rail and trams will always be at the heart of political discussion. Political debate is about deciding which projects should go ahead and which of them deserve to be prioritised and establishing whether we are getting the balance of investment right. I am certain that we must invest more in public transport, because there has been underinvestment for a number of decades.

**The Convener:** The viability of tramline 1 is dependent on the minimisation of potential competition from buses. Experience elsewhere has shown that to be the case. If City of Edinburgh Council proposed to introduce a bus quality contract, would you look on that favourably as a means of eliminating wasteful competition?

**Nicol Stephen:** I am not sure that it would be appropriate for me as Minister for Transport to use the words that you have just used as part of any approval that I gave to such a contract. However, the Executive has made it clear that we are willing to support quality partnerships and quality contracts, provided that the scheme is appropriate and there is good evidence of local support for such an initiative. If that were the case, I would be prepared to approve such a scheme, regardless of where in Scotland it was proposed. There has been discussion of a quality contract in Edinburgh as part of the overall trams initiative. However, the opportunity exists to get the system right through partnership working, discussion and negotiation. That could offer a fair solution, but I would never rule out the possibility of a quality contract.

**Mr Stone:** Keep me right, but I get the impression that neither Lothian Buses nor the City of Edinburgh Council is particularly keen on quality contracts. Given that the Executive's investment of £375 million could be jeopardised by cowboy bus companies coming in and taking over, are you prepared to argue for such contracts, in the face of opposition from Lothian Buses and perhaps the council?

**Nicol Stephen:** As I said, a partnership or negotiation approach could be one way ahead. That has happened successfully in other cities in which tram schemes have been introduced and I do not rule it out. I also mentioned that the Scottish ministers are willing to support quality partnerships and quality contracts, although we have not as yet had a statutory quality contract in any part of Scotland. However, we would support a scheme if it was right and appropriate.

The trams are not due to be in place until 2010-11. The Executive, or some future Administration,

could introduce legislative proposals if it felt that stronger powers were required to ensure that the sort of unfortunate situation that committee members envisage does not occur.

**The Convener:** Will the proposed national concessionary travel scheme for older people and the disabled apply to tram journeys?

**Nicol Stephen:** The partnership agreement commitment does not cover tram journeys, but we do not have trams at present. Without prejudging the statement that I will make in Parliament before Christmas, the technical answer is that the current scheme that I am tasked with delivering relates to bus travel. TIE and the City of Edinburgh Council have made it clear that they envisage that the scheme will apply to the new tram system, but a discussion is needed between the Executive and the council about the funding of the concessionary scheme. However, I have not made an announcement that covers trams as well as buses, and nor am I likely to do so next week. I have no doubt that, when the trams run, elderly and disabled people will travel on them free. We have time to sort out the funding arrangements for that; there is no formula for dealing with trams at present and we need to have discussions with the council on that issue.

**The Convener:** I do not want to put words in your mouth, but are you saying that, at this stage, the answer is no, but that later it might become yes?

**Nicol Stephen:** Yes, that is what I am basically saying. By that stage, several members of the committee might benefit from free travel on the trams, but I do not want to introduce a potential conflict of interest into the discussion.

**The Convener:** You are on dangerous territory, minister. I advise you to desist from making agist comments.

Jamie Stone has the next question.

**Mr Stone:** No, not me.

**The Convener:** Yes, you. The convener says that it is you.

**Mr Stone:** I will read it unrehearsed. In evidence to the Public Accounts Committee, the permanent secretary to the Department for Transport stated:

"there is now a grouping called UK Tram which brings together Transport for London, the PTEs, the Federation for Passenger Transport and the private sector suppliers, and the intention is that it will produce best practice and standards and we will require them as a condition of grant for future schemes."

What consideration will you give to that group's best-practice and standards recommendations when deciding to guarantee funding to Edinburgh trams?

**Nicol Stephen:** I am sure that that issue was raised last week, when Damian Sharp gave a solid answer to the question. I ask him to reply to you.

**Damian Sharp:** The Executive has encouraged TIE and City of Edinburgh Council to participate fully in the discussions of the UK tram group. The strict position is that, although we expect TIE and the council to take account of the best practice of the UK tram group, they are not bound by it in the way that the Department for Transport has determined. However, if they wished to diverge from that best practice, they would have to justify clearly why they were doing so. We would expect that to be part of the developing business case.

**The Convener:** There are no further questions from members. I thank the minister and Damian Sharp for appearing before the committee. We will now change witnesses. Panel 2 is witnesses on behalf of the promoter. I welcome Graeme Bissett and Mark Bourke, who are both from TIE; John Watt, from Grant Thornton UK LLP; and Les Buckman, from Steer Davies Gleave. Welcome back to the committee, gentlemen. It does not seem like last week when you were before us. Do you have any opening statements to make?

**Graeme Bissett (Transport Initiatives Edinburgh):** No.

**The Convener:** We will move straight to questions.

**Rob Gibson (Highlands and Islands) (SNP):** At the meeting on 30 November, the committee heard that Transport Edinburgh Ltd has been created by City of Edinburgh Council as an umbrella organisation covering TIE and Lothian Buses. How will TEL work financially, and will it be possible for Lothian Buses to contribute financially to the tram project?

**Graeme Bissett:** At present, TEL is established as a company with a limited number of formal directors. We anticipate appointments to the board to be made in the spring, which will need to be approved by the council. We are working through that process just now. By that time, a board will be formally constituted that will have the right level of experience and knowledge from the industry. We have already established informally the operational teams that are working together on the design of the tram and related matters. One of those groupings is Lothian Buses.

The funding of the operations of TEL is, essentially, part of the funding of the development of the tram, as the purpose of TEL is to establish an integrated tram system. I take it that, in asking about funding from Lothian Buses, you are driving at whether there will be a contribution from its profits to the operations of TEL. We have not tackled that at this stage. That can be a serious issue only once the tram and buses are operating

together, which will be five years or so from now. At that time, the system will be operating on an integrated basis and, although every attempt will be made to retain full visibility of the profitability of each aspect of the system, there will be one collective set of cash flows—some from buses, some from the tram—that will be consolidated within TEL. I may be trying to predict a concern in saying that we do not assume as part of the business case a contribution from Lothian Buses to the tram system's funding.

**Rob Gibson:** Will you elaborate on the financial relationship between the City of Edinburgh Council and TEL? If TEL ran into financial difficulties, would the council be financially responsible?

11:00

**Graeme Bissett:** TEL is and is intended to remain a 100 per cent-owned subsidiary of the council. In that sense, the council will remain responsible for TEL's financial performance and condition. If TEL required funding, that could have only one source: the council. However, that in itself does not change the basic proposition that, when the grant from the Executive has been taken into account, the tram system is fundamentally the council's responsibility. TEL is just the repository of the cash flows.

**Phil Gallie:** You may recall that at our meeting on 30 November, Transdev suggested that line 2 could be extended to create a route from Leith to the airport. Would that have a significant impact on revenue calculations for line 1? Has that been considered, or is the proposal just a feather in the air?

**Graeme Bissett:** I would not accuse the suggestion of being the latter. The underlying point is that we have developed financial cases for lines 1 and 2 independently. The objective is to produce a network, part of which would be a routing from the north of the city and from Leith all the way out to the airport and on to Newbridge. If the overall funding was deemed inadequate to build the entire network, one alternative configuration might be to run from Newbridge to the airport, Princes Street and Leith. However, we have not established or evaluated that case in detail.

A network has a net benefit for several clear reasons, such as through journeys and general efficiencies. All other things being equal, the suggested route might have an advantage over one that is a bit shorter. However, we have not evaluated that in detail.

**Phil Gallie:** I am not sure what that means for the circular route's future. If the Leith extension were considered, would you drop the Granton extension and the route by Roseburn?

**Graeme Bissett:** We are not saying that. We have been given the task of developing the cases for the two separate lines and how they would look as a network. We are not considering a truncated version of that or any alternative configuration.

**Phil Gallie:** I understand that. Why stop at Leith with line 2? In considering value for money, have you thought about taking line 2 right along to Granton and having one line overall?

**Graeme Bissett:** We have concentrated efforts on line 1 as a loop and line 2 as an independent branch. No detailed work has been undertaken on any other configuration. I think that some early evaluation took place—perhaps my colleagues can help on that. I guess that that was intended to ensure that the two lines were the best bet overall and that an alternative configuration would be no improvement. If in future funding was limited and we were looking for an alternative configuration, there would be every prospect of our examining the routing that you describe, which does not stop at Leith but moves west to Granton.

**Phil Gallie:** Given that Edinburgh council tax payers will be liable to pick up any additional costs if the calculations are incorrect, should overall revenue implications as well as capital costs be a major factor?

**Graeme Bissett:** There is no question about that.

**Mr Stone:** I take you back to the evidence that we heard last week from Bill Raynal, who was speaking for the Wester Coates Terrace action group. He expressed concern about what he regards as the lack of accountability in relation to the line 1 project. He referred to the involvement of both TIE and the City of Edinburgh Council in the proposal, but added that it was not at all clear who was ultimately responsible for the scheme. For the record, can you tell the committee today what the lines of responsibility and accountability are? Who is ultimately accountable?

**Graeme Bissett:** The answer is quite clear to us. TIE is a wholly owned subsidiary of the City of Edinburgh Council and it was established to deliver the project from development through to completion. Ultimate responsibility for the project when it is operational and during its development phase is with the City of Edinburgh Council. TIE's responsibility is to do the best job that it can to provide the council with the best information on which to base the decisions that it needs to make.

**Mr Stone:** For the record, can you clarify the extent to which the council has approved the line 1 proposals, including the updated PFC and STAG documents? What further council approvals are being sought? When will they be sought?

**Graeme Bissett:** The council approved formally the original PFC, which was submitted with the bill about a year ago, along with the STAG documentation and the content of the bill. Since then, there has been a rolling process of further work. The PFC that the committee received in September was produced at the request of Parliament, to provide further information. The next main stopping-off point will be around the middle or end of next year, when tenders will be issued to the market. As the committee has heard, those will be supported by an outline business case. Ultimately, there will be a final business case, supporting financial close. I defer to those who understand the administrative process better, but I understand that the final business case will have to be approved formally by the council.

The process that I have outlined is somewhat scientific. There is day-to-day communication between TIE and officials of the council and the Executive. TIE is not operating in a box on its own. We have consistent communication, on a rolling basis, with all the important people in those two organisations.

**The Convener:** The table of sources of tram patronage that you provided to us was hugely helpful, because I like things simple. I want to confirm a point with you. You say that the 5.19 million or 55 per cent of tram passengers in 2011 from "North Edinburgh" correspond to demand from new housing or business developments. Is that the case? What would the effect on the economic case be if the level of development were lower than expected or if development were delayed for any reason?

**Graeme Bissett:** Before asking Les Buckman to answer the question in detail, I will make a couple of comments. There is no denying that the development to which you refer is one of the key reasons why the line 1 project has been brought this far. I suspect that if it were not for that development, we would not be sitting here. The development is an important element of the forward projections for the tram. We have allowed for the development for which consent has already been given, but not future potential development, although landowners have already tabled a range of further developments and have made their intentions public. We have not incorporated such development in the revenue projections to date.

**Les Buckman (Steer Davies Gleave):** The convener has asked us to clarify what areas are covered by the term "North Edinburgh". In effect, it covers the Granton and Leith development areas. However, because of the nature of the model and the zones and how those are brought together to produce the numbers in the table, some existing areas of Wardie, Trinity and Newhaven are included. Those areas extend 0.5 to 1km back

from the shoreline across the whole of north Edinburgh.

**The Convener:** I understand that the forecast is only for those areas that have been given consent and not for others that may be coming. I am simply focusing on the areas that have been given consent. If there is a delay, for any reason, in those developments and the tram does not get the forecast patronage, have you factored that in?

**Les Buckman:** At the moment, the modelling is consistent with the structural plan, so the developments are, in effect, reflected in the forecast that we have made to date. New or upgraded development proposals are in the pipeline for Leith, which would go over and above that. I believe that that demonstrates the commitment of all parties to carry through the regeneration and redevelopment of those north Edinburgh areas. I am sure that members are aware that much has already been built there and that, as we speak, much is under construction.

**The Convener:** Thank you.

If my recollection is right, I questioned you at the previous meeting on the National Audit Office report and the extent to which it identified falls in patronage from what had been forecast. In some of the better tram systems, the fall is roughly 25 per cent. I think that you said that the patronage would be 25 per cent lower than the forecast figure because patronage would build up to a mature level over the early years of operation. My understanding is that the tram systems that the NAO report profiled had build-up profiles, so is your point not a bit of a red herring?

**Graeme Bissett:** If I said that, it sounds as if the 25 per cent figure would be right. I cannot remember using that phraseology, but perhaps I could try again. I will ask Les Buckman to embellish my point. There is a ramp-up period at the front end and the model has assumed a three-year period. The issues beyond that are the most critical ones. The key problem area in a large number of the English schemes, but not across the board, has been lack of integration. That is why we are spending so much time on the TEL arrangements and working with Transdev, Lothian Buses and other bus companies. We want to avoid the problem of lack of integration and we have worked proactively to ensure that we have much better visibility of a stable revenue base, with stable bus and tram operations, long before the commitment is made to build the project. Les Buckman will add to that.

**Les Buckman:** I confirm that we have used figures of 75, 85 and 95 per cent for the ramp-up period for line 1 until demand reaches maturity, which is standard practice. The NAO report has statistics on existing tram systems in the United

Kingdom that show approximate figures for ramp-up periods that are consistent with our figures.

**Mark Bourke (Transport Initiatives Edinburgh):** If I may, I will add a few points to that. In essence, the NAO identified a number of factors that triggered a reduction in patronage. I acknowledge that forecasting was one of those factors; other factors included reliability issues, which we expect to overcome with the early involvement of the operator. Undoubtedly, as Graeme Bisset said, lack of integration has also been a main factor, but we are confident about our team and our adviser base. It is worth noting that one of the most successful tram schemes to be implemented—the Manchester scheme—used the same adviser team that we have used to construct and develop our model.

Undoubtedly, the English tram schemes have been affected by other factors, such as a change in local council policy on developments—that was the case in Sheffield—or by issues such as vandalism and problems with tram vehicles. A host of reasons are out there. The important issue for the committee is that we are acknowledging those issues. We have taken account of the risks and our modelling techniques are not following the path of previous schemes of heroic estimates but involve prudent estimates on which we believe we can deliver.

11:15

**The Convener:** Do you believe that through the action that you are taking, given the shortfall that has been experienced elsewhere, the 25 per cent reduction can be minimised?

**Mark Bourke:** We believe that it can be minimised. We believe that if we apply all good sense we can exceed our estimates, because they are conservative.

**Graeme Bissett:** We also have an arrangement with the operator, Transdev, whereby it will share on what is known as a pain-and-gain share basis. In this case, that relates to revenue around a target. We are saying that the operator has a strong interest in getting the projections right and doing all it can to beat them in due course through smart marketing and other means. The scheme is designed to do better than the numbers on the table.

**The Convener:** You confirmed the forecast that car demand is likely to grow by 50 per cent between 2001 and 2026. Do you believe that Edinburgh's roads have sufficient capacity to cater for such an increase in traffic in that time? Is it more likely that car trips will be suppressed in some other way?

**Les Buckman:** The modelling framework that we have employed in the forecasting process

includes a series of facilities to consider the capacity of the highway network and the demand that is placed on it. The model will take a view on whether it is realistic to have that level of demand on the network. If the model forecasts overcapacity and high levels of congestion, it will suppress that level of demand to a more reasonable level and/or move some of the excess demand into adjacent time periods. Last week we talked about the phenomenon of peak spread. If, in the morning peak, there is not enough road capacity for the trips to be made, they will to some extent be moved to adjacent periods. If that still leaves overcapacity, trips will be suppressed. There is a mechanism to ensure that the level of demand is consistent with the available capacity.

**The Convener:** Can you put that simply for me? Do you think that there is sufficient capacity on the roads?

**Les Buckman:** At a strategic level there is. It could be that in isolated cases, a particular junction becomes what one might consider excessively over capacity. On the broad network, that is reflected in the modelling and is taken account of.

**Phil Gallie:** We have heard that 50 per cent of the total economic benefits of the project will be non-user benefits. Is it the general experience that non-user benefits account for such a high proportion of the forecasted economic benefits?

**Les Buckman:** The firm that I work for, Steer Davies Gleave, has been involved in a number of tram schemes in recent years. We have done the same kind of exercise as that which is laid out before the committee today. We also audit schemes; in effect, we have fulfilled the same role as that of the committee adviser. The 50 per cent figure is within the range of our experience.

**Phil Gallie:** Do the calculations that you used on other schemes not show a relatively low level of switch from car to tram? Surely an extremely low level of switch from car to tram is anticipated.

**Les Buckman:** All the empirical evidence from the monitoring studies indicates that the proportion of tram riders who were formerly car users is in the range of 15 to 20 per cent. The forecast that the committee has in front of it is consistent with that evidence.

**Phil Gallie:** Given the circular route that tramline 1 will take, I find it difficult to see where the savings—the figure of 15 to 20 per cent of car users—will come from. Do you envisage a wider car-user saving to the city of Edinburgh? Will the people who come into the city centre by car from outside the city boundary not simply drive to somewhere within the circular route, park their car in a suburban area and move on to the tram?

**Les Buckman:** Although that might happen to some extent, it has not been reflected in the modelling. No formal park-and-ride sites have been identified for line 1.

**Phil Gallie:** That is the hub of my question. There is no formal park and ride and yet, to get the switch from car to tram, surely informal car parking will have to occur in the suburban areas.

**Les Buckman:** The figures assume no park and ride. If informal park and ride were to happen, the number of car users making the switch would increase. Clearly, where we will get a transfer from the car is in the sphere of influence of line 1. I agree that it is important to point out that line 1 is a circular route, but it has what I would call two core linear routes—the route that runs along the Roseburn corridor from Granton into Haymarket and the city centre and the route that runs along Leith Walk from Leith to the city centre.

As line 1 is joined across the top, it might act as a circular route, but the fact is that it is formed by two linear routes into the city centre—indeed, those routes are heavily trafficked. The tram will offer a positive alternative to the use of the car. The figures are consistent with the evidence from elsewhere; it is not as if they are unrealistic.

**Phil Gallie:** I do not want to labour the point, but I get the impression that few of the car users in that part of the city take their cars to either Haymarket or the centre of the city.

**Les Buckman:** Although I do not have the exact figures with me, from memory I recall that a significant proportion of the car trips that are made into the city centre are from north Edinburgh. It is clear that some of those car users will be able to switch to the tram.

**Phil Gallie:** Comments have been made about severe congestion in the future. To some extent, if the STAG report is taken into account, there are two contradictory views on that. Will you comment on the time benefits to car users? Will you estimate the time saving, in minutes, on car journeys?

**Les Buckman:** The figure of 1 per cent has been mentioned a number of times. I believe that that stems from a table in the STAG report, which says that 1 per cent of car trips within the Edinburgh area will transfer to the tram. Perhaps that does not seem a lot, but as the 1 per cent transfer relates to the whole city, it will be higher within the area of line 1.

Congestion is not a linear relationship—it is not as if taking out 1 per cent of car trips results in a 1 per cent reduction in congestion. The effect is exponential: it goes along and then starts to go up swiftly. By taking a relatively small number of trips off the highway network, we will disproportionately

improve the travelling conditions for the cars that remain on the network. Some of the travel time savings could be very small—of the order of a few seconds—but some of them will, no doubt, be of the order of a few minutes. However, they are all equally valid for, and equally included in, the appraisal process.

We are talking about a lot of trips. Line 1 will remove 1.5 million car trips a year by 2026. That is still a relatively small proportion of the total trips, but tens of millions, if not hundreds of millions, of car trips could benefit, albeit by a small amount. When the time benefit is added up over 30 years, that gives you the number that we have. We are talking about lots of small time benefits throughout the city. Those will be concentrated in the area of line 1, but there tends to be a cascade effect as we move away from the direct area of the line. If trips are removed from north Edinburgh—the line 1 area—the traffic flow will improve in that area, trips further afield will change their routing to take advantage of that and trips will then take their place further out. That is why the STAG report mentions substantial benefits outwith the tramline's immediate area.

**Phil Gallie:** On the economic benefits, what would the effect be if car growth could not be accommodated or if it and congestion do not reach the expected levels?

**Les Buckman:** If car growth does not reach the expected level because the congestion level is so severe, we would still get much the same numbers that we get now, because the sheer level of congestion would suppress demand. Demand might go down, but we would get much the same order of magnitude of congestion relief as we have done.

**Phil Gallie:** What if the congestion level is lower than anticipated?

**Les Buckman:** My point is that, if the congestion level is such that it constrains the level of car demand, that would still give us benefits when we take away some of that demand. We would still see substantial congestion relief benefits.

11:30

**Rob Gibson:** I will address bus and tram patronage issues. Response 17 sets out details of the checks that were made on 2001 bus passengers in the detailed assignment model, or DAM. TIE has not provided an answer to the 1997 central Scotland traffic model 3—CSTM3—validation, but instead refers to Diarmid Lindsay at the Scottish Executive.

My questions are confined to the DAM. Can TIE explain the variation in the surveyed and modelled

bus vehicles in table 4 of response 17? For example, there appear to be 17 per cent too few inbound buses at the am peak. Why was that not corrected? Might it explain why there are too few bus passengers in the model?

**Les Buckman:** Table 4 compares 2001 modelled forecast flows with observed data from 2003, so there is an element of growth in actual ridership, which was alluded to in the note and accounts for some of that variation. In deriving our forecast, we have taken account of the relatively systematic shortfall of public transport demand and adjusted the patronage figures to be consistent with the observed flows in 2001.

**Rob Gibson:** If that is the case, we are introducing observed data from 2003 to compare with the 2001 DAM, which was itself supposed to be related to the 1997 CSTM3. How are we to judge whether the case holds up?

**Les Buckman:** I will step back and explain the provenance of the DAM. CSTM3 has a base year of 1997, but it was actually developed after 1997. The timeline was such that 1997 was the chosen base year for CSTM3. A range of surveys was done in that year, and they were combined with existing modelled data to produce a robust model with a base year of 1997. CSTM3 is probably about to be superseded by the transport model for Scotland, but at the time it was the standard model for use by the Scottish Executive and its advisers for all major transport schemes in Scotland. As I said, CSTM3 has a base year of 1997, but given that the model development process probably takes two years, we are talking about it being available in 1999 or perhaps 2000.

The contract to develop the model that was used for forecasting for line 1 was let in 2000. As with all such things, the best available current information was used, which at that time was the CSTM3 1997 model. With the development of the land use transport model interaction—LUTI—and the DAM, which underpins the line 1 forecasts, the intention was to use a 2001 base year. In developing the LUTI and DAM, the consultants who put together the models took CSTM3 and used it in forecast mode to move forward the base year from 1997 to 2001. They adjusted the network, for example, to take account of any schemes that had been put in place between those two years, and they derived demand data by using CSTM3 in forecast mode for four years ahead. The 2001 data then became the basis of the LUTI and DAM.

On the LUTI side, because of the nature of the LUTI model—it is much more complex than CSTM3 and takes into account a bigger range of behavioural responses, effectively operating in a different way—the consultants had to adjust the 2001 data, which came out of a CSTM3 run, to fit the requirements for the LUTI model. They

updated some of the data as part of that process. On the DAM side, they used the data from the CSTM3 forecast of 2001. Recognising the importance of ensuring robust forecasts on the public transport side, we carried out a series of 12-hour counts by direction at 13 sites. The same thing that was done for line 1 was then done for lines 2 and 3 in order to ensure that we were getting sound and robust flows out of the DAM for 2001. That is notwithstanding the fact that 2001 data were being used rather than 2003 data, as, in broad terms, account was taken of the growth in the background level of bus demand.

**Rob Gibson:** Thank you. The question was complicated and that was an interesting answer. Let us try to apply it to the results of the bus surveys. There were considerable fluctuations between the surveys and the models by both time period and location. In relation to table 3 of response 17, can TIE confirm that the application of a 10 per cent uplift would lead to a 26 per cent overestimate in outbound morning bus passengers?

**Les Buckman:** What you are saying is correct. However, conversely, the inbound number of passengers would now be 7 per cent under, and that would be the dominant flow in the morning. Similarly, the outbound flow in the afternoon is the dominant flow by a 75:25 split. That would now be 16 per cent under, instead of 26 per cent under, notwithstanding the growth that we know has occurred between 2001 and 2003, which would probably bring that figure closer to 6 to 8 per cent.

**Rob Gibson:** Would that lead to a similar overestimate of tram passengers, bearing in mind the fact that 83 per cent of the 2011 tram passengers will come from buses?

**Les Buckman:** No. In effect, we are applying an uplift that brings into line what we feel the 2001 baseline level should be. That is then carried through into our forecasts. I do not feel that that would lead to an overestimate of tram ridership.

**Rob Gibson:** Okay. Given the importance of car travel time benefits to the economic case, were similar checks made of car volumes in the CSTM3 model and DAM?

**Les Buckman:** CSTM3 has a robust calibrated and validated audit trail for the base year of 1997, which is set out in the documents that are referred to in our response. On DAM, given that we are considering a public transport scheme, the most important thing in establishing the financial case was for us to ensure that we were getting a robust model and robust demand and revenue estimates. On that basis, we took the view that we would focus on the PT side, which is when we did the counts.



**Rob Gibson:** But no data on car movements are available to us. The data for us to be able to validate what you say are missing.

**Les Buckman:** No formal validation was undertaken on the 2001 DAM, but extensive and robust validation was undertaken on the 1997 CSTM3 model—the documents that are referred to set that out.

**The Convener:** I have a supplementary question to keep things simple, because I like things that way. Do you not need to know the accurate number of vehicles in order to predict flow accurately? I refer to what you said right at the beginning. I need to know whether you think that your model predicts the actual number of vehicles. You started to talk about flow, but I am much more interested in whether you have the number of vehicles right.

**Les Buckman:** We believe that we do.

**The Convener:** You say that despite the discrepancy.

**Les Buckman:** Do you mean on the public transport side?

**The Convener:** Yes.

**Les Buckman:** Yes, we do.

**Mark Bourke:** It is worth noting that we are talking about only one step in the process. There will be further development of an overall, robust case to put before the Executive and part of that work stream will include further refinements in the model. We certainly welcome the committee's independent review—as a risk manager, I think that it is most welcome. Obviously, we will take on board all the observations that are made by the committee's advisers and ensure that the issues are dealt with.

**The Convener:** That is helpful to know.

**Rob Gibson:** I turn to bus and tram patronage along Leith Walk. We understand that there will be a reduction in the number of buses from around 49 buses an hour to around 27 buses an hour as a result of the trams. Even with a reduction to 27 buses an hour, those buses are likely to carry more passengers than the eight trams an hour. It seems that the bus-tram passenger split that is forecast will be achievable only if a substantial proportion of tram passengers allow buses to pass them while they are waiting for a tram. That needs to be substantiated. Will you clarify and explain how the numbers of tram and bus passengers along Leith Walk are derived from the expected rate of 27 buses and eight trams an hour?

**Les Buckman:** Considering the split between bus and tram not only on Leith Walk but across the whole route is a function of the modelling process, which will consider every journey that is

made and the available choices, whether between bus routes or between buses and trams. It will say that a route will take X amount of time by bus and that there is a bus every 10 minutes or that a person can get a tram with a run time of so many minutes and that that person will wait for it for so long. Considering the split is a function of the modelling process.

Not everybody who will go up Leith Walk will go by tram. It is clear that there will still be substantial demand for buses. That will be the same across the network.

**Mr Stone:** Can you tell me—you may have told the committee before, in which case I am sorry that I missed it—how you have factored people's destinations into the model? If someone is standing at one end of Princes Street and wants to go to the other end, a bus and a tram might appear equally attractive, but if they want to go from one end of Princes Street to somewhere down by the sea—beyond Leith and round to the left—that would be quite different and they would then favour the tram ahead of the bus. How have you worked that in?

11:45

**Les Buckman:** The modelling will disaggregate the origins and destinations of all the trips made. If someone wants to go from the west end of Princes Street or from Haymarket to Leith, the modelling will simply say where the nearest bus stops and tram stops are and it will work out the best options. It will take account of where someone is and where they are going when determining the choice set. That applies wherever one goes by bus or tram. The normal issues of frequency, fares and run times come into that in the normal way. The modelling reflects the potential for tram access times to be longer than those for the bus, perhaps because of where someone is coming from or because the tram stops are more widely spaced than the bus stops.

**Mr Stone:** I take it that you have worked in the figures that my colleague Rob Gibson highlighted.

**Les Buckman:** Yes.

**Phil Gallie:** Given the overall costs, it seems that TIE has an allocation of £210 million for line 1 and that £11.6 million is to come from a private developer. At the same time, the estimate for the cost of the scheme is £219 million. That leaves only a small sum of money to cover contingencies, optimism bias and other aspects. Do you feel comfortable about that? What other sources of income can you identify at this stage that will perhaps create more reasonable levels to cover those costs?

**Graeme Bissett:** When we spoke briefly about the matter last week, I made the point that the allocation of grant to lines 1 and 2 in the PFC for line 2 is not mandated by anyone. That was an estimate that we prepared in order not to be seen to be counting the £375 million twice across both lines. The figure of £210 million is not cast in stone, but your underlying point is still absolutely valid. If we build a network, there is only £375 million to spend and that has to be spread across the totality. If we do not build a network, the headroom between £375 million and what line 1 needs is very substantial.

Another question is whether the Executive would be prepared to provide all that funding for a single line. You heard the minister's answer to that earlier this morning. If we consider the situation from a network point of view, as TIE should be doing, it looks as if there is a reasonable match between the aggregate of all the expenditure and the aggregate of all the sources of funding that we have identified. I include in that some of the additional sources of funding, the details of which we provided the committee in one of our papers.

The difficulty is that, at one end of the spectrum, if we assume a network that includes line 2 going all the way out to Newbridge, there is a range of possible outcomes, which depend on the sums that one is seeking from external sources—including the Executive grant. There is a relatively small number of outcomes at the comfortable end of the spectrum, but there is a very much larger number at the more risky, less comfortable end.

As for the totality of the funding, our discomfort level is tied in with the fact that, if we want to build the entirety of the network out to Newbridge, we enter an area where the sources of funding are at the optimistic end of the spectrum. If we are in the business of building only line 1 or line 2, the situation is much more comfortable. Therefore, it is likely that somewhere in the middle lies the phased answer to building the entire network.

I will not go into great detail about the funding sources, as everything is in the paper that we have submitted and I am quite happy to elaborate on any comments that I make. As you say, one of the funding sources is the developer contribution, which is not contracted but is strongly indicative of the reduction in capital costs that would apply from the land contributions. We have examined the potential for developer contributions on a much wider scale around all the routes. Again, you have the details in the paper, which is based on a fairly detailed analysis of the routes and an examination of the application of the council's developer contribution policy, driven by professional property advisers. The analysis has been thorough; by no means have we just stuck a finger in the air.

Last week, we talked about the potential for income from having advertising on the trams and

at the stops, consistent with legal and design implications.

**Phil Gallie:** What kind of value would you put on that?

**Graeme Bissett:** For line 1, we have estimated that it would come to £300,000. For both lines, we have estimated a sum of £700,000.

**Phil Gallie:** That is relatively small beer compared to the overall costs.

**Graeme Bissett:** Those estimates are for revenue accrued each year. If those numbers are multiplied by 30, they become quite large. We think that, over 30 years, advertising would raise between £5 million and £12 million. That is not an insignificant sum of money.

**Phil Gallie:** Yes, but if you fit that into your revenue estimates, in which you suggest that your operating revenue surplus will be something like 4 per cent a year, and take into account other aspects, such as replacement, I suggest that the sum raised from advertising is insignificant. At the same time, the margin of revenue surplus is extremely low, given the risks that the minister has told us that council tax payers have to take.

**Graeme Bissett:** There are risks. However, line 1 is producing a surplus that is more than adequate to pay for the replacement and refurbishment life cycle costs. The net surplus from that set of cash flows contributes to the capital cost. Overall, depending on which component or element of the grant is offered to line 1, in isolation, the proposition is comfortable. As I said earlier, however, the issue of the stretch in the funding will arise when line 1 and line 2 combine to create a network and there is a fixed grant of £375 million.

I am not suggesting that we have the last word on the subject. However, we can see the sources of income that we want to develop further. We can see the costs and the potential contingencies, but we can also see that there is a reasonable basis for continuing the development of both lines, working the risks and ensuring that the contingencies are narrowed at the same time as the sources of revenue are maximised.

It is not for me or TIE to speak for the council or the Executive but, if there were a question of affordability, the option that would be open to them at that stage would be to consider the future of the Newbridge extension from the airport on line 2. As I said earlier, it seems somewhat unfair to pick on one section of the route, but the Newbridge extension is the extremity of the track and losing it would not affect the line 1 loop. Furthermore, it is clear that, over 30 years, it is quite an expensive extremity. If the decision was that, before committing to the network, we needed to include in

the funding plan a safety valve, that would be an obvious place to have it, as it could make a big difference to the overall funding and the affordability of the scheme.

**Phil Gallie:** Could you remind me, because my memory is not up to the task, whether that £375 million is at today's prices?

**Graeme Bissett:** It is.

**Mark Bourke:** There has been a lot of discussion about the risk exposure on the capital expenditure, for obvious reasons. The Treasury identified a tendency of promoters and scheme developers to underestimate capital costs at the outset of projects. A number of reasons for that were put forward, including naivety or conspiracy, neither of which is tolerable.

The case that we put to the committee is very robust. Our confidence comes from the fact that years of development have gone into the project. We have invested millions of pounds to reach this stage and we have engaged advisers who have fantastic credentials. Throughout the process, we have built in risk awareness, which has been central to how we managed the process.

Rather than talk about how projects such as the Thames barrier or nuclear power stations overran, it would be best to consider the recent evidence that the NAO published. The NAO report highlighted a weakness in the way in which procurement for tram schemes has been undertaken in the past. Our procurement strategy has been built on the lessons that could be learned. The NAO report made the important point that there is no history of capital cost overrun in such projects. Of the projects that have been developed in the United Kingdom during the past 20 years, about seven schemes are operational and they were constructed on average for about £10 million per kilometre—that sounds like a lot of money. According to the NAO report, the average construction costs of the three schemes that are currently planned will be £13 million per kilometre. The price difference is partly due to the risk transfer that has been pushed on to the private sector—potentially far too much revenue risk has been pushed across.

Our estimated construction costs are currently £16 million per kilometre, which is £3 million per kilometre more than every other planned scheme. We are confident about our capital allowance because we have not moved into small investment to make our case; we have invested and we have taken a different approach to developing the capital costs. We did not build up the figures from unit rates; we obtained quotations, considered the commercial rates that have applied in other projects and used those figures to construct our cost base on the outturn of projects. Therefore, the

costs that are before the committee are very robust.

We must also bear in mind the fact that the industry will consider the figures closely. The worst-case scenario would be for us to present before the industry a figure that is far in excess of what the scheme can be delivered for, because if we did so the industry would gladly spend the extra money. The message that I am trying to put across is that we recognise the risks and the capital exposure and we have taken prudent steps to control that and to present a robust case.

**Phil Gallie:** That is full of merit, particularly given the Treasury's comments that you mentioned. However, I will just say that Scotland's nuclear power stations were pretty well built to budget.

**The Convener:** Before we go too far down that track, I should say that the committee has no doubt about the promoter's intentions and professionalism or about the professionalism of its advisers. Nor do we doubt that you have learned from the experiences of others. However, we need to understand the long process that you have followed and be absolutely reassured that it will deliver what you hope that it will deliver—hence our questions.

I will mop up a couple of matters and keep things simple. For the record, the committee will consider only line 1, so, although you have talked about the network, the financial case will need to stack up for us on the basis of line 1.

I am sorry, but I want to take you back to Edinburgh roads and the issue of insufficient capacity given the 50 per cent increase in cars. Forget the model for the moment—if we put 50 per cent more cars on the road, we would not move anywhere. Is that a fair comment?

**Mark Bourke:** It is fair-ish.

12:00

**The Convener:** All right, work with me on this. Let us assume that it is a fair comment and that there are 50 per cent more cars on the road. Your model then says, "We cannot all squeeze in, given current capacity, so we'll just push some people to the sides." However, the reality is that I want to travel between 8 am and 9 am. I do not want to travel at the sides. Does your model over-egg the 50 per cent?

**Les Buckman:** I would say not, because the model has been calibrated and validated to reflect observed behaviour. In that sense, my view is that the model is not over-egged.

**The Convener:** Even though the model reflects observed behaviour, we will still all try to travel

between 8 am and 9 am unless we do something different. Your model disperses that number; it does not do what we would do.

**Les Buckman:** The model has been calibrated to reflect observed behaviour of when people choose to travel, which is influenced by levels of congestion and the available alternatives. In that sense, the model should be able to reflect the basis on which people want to travel and the ability of people to transfer to a different time period. The model is disaggregated by trip purpose. For example, a journey to work is much more fixed than a shopping trip. The model will reflect people's ability to transfer to a different time period depending on what they are doing for that particular journey.

**The Convener:** Okay. Do you see the difficulty that I have with a model that does not necessarily relate to what I understand to be our behaviour?

**Les Buckman:** The model was constructed explicitly to pick up a broad range of behavioural responses. It breaks down the levels of demand out there now, based on the reasons for those journeys. It reflects the fact that certain journeys, such as business trips and journeys to work, will be much less flexible in when they can be made.

**The Convener:** I am conscious of time, but I have another quick question. As Phil Gallie said, the STAG appraisal says that there will be "severe levels of congestion". Does that tally with the comment that there is sufficient capacity at a strategic level?

**Les Buckman:** It depends on what you mean by "congestion" and "capacity". Trips will still get through, but they will take a lot longer. That is the issue. When there is overcapacity in an area, that will mean that journey times are extended, but ultimately those trips will get through.

**The Convener:** As the minister said this morning.

**Les Buckman:** Exactly.

**The Convener:** My final point is about utilities, although I am not looking for an immediate response. We asked for information about up-to-date estimated costs of the utility diversions because of the risk. Can we have that information, please?

**Mark Bourke:** Yes.

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

Gentlemen, thank you very much for giving evidence today. I wish you and everyone else season's greetings and merry Christmas. We will see you in the new year.

We now move into private session to consider item 3 on the agenda.

12:04

*Meeting continued in private until 12:33.*

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