

EDINBURGH TRAM (LINE ONE) BILL

Tuesday 7 December 2004

Session 2

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EDINBURGH TRAM (LINE ONE) BILL COMMITTEE 11th 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)

Alison Bourne

Douglas Brown (Wester Coates Terrace Action Group)

Les Buckman (Steer Davies Gleave)

Bill Raynal (Wester Coates Terrace Action Group)

John Watt (Grant Thornton UK LLP)

CLERK TO THE COMMITTEE

Jane Sutherland

LOCATION

Committee Room 2

Scottish Parliament

Edinburgh Tram (Line One) Bill

Tuesday 7 December 2004

[THE CONVENER *opened the meeting at 10:24*]

Edinburgh Tram (Line One) Bill: Preliminary Stage

The Convener (Jackie Baillie): Good morning and welcome to the 11th meeting of the Edinburgh Tram (Line One) Bill Committee. This morning, all that we have on the agenda is oral evidence on the general principles of the bill, and the committee will consider the updated preliminary financial case. We have two sets of witnesses today. I welcome Alison Bourne and Patricia Craik, who are representing the group submission that members will find at B4 in their files. I also welcome Bill Raynal and Douglas Brown, who are representing the Wester Coates Terrace action group. Members will find their submission at B5. I gather that both sets of witnesses would like to make an opening statement for five minutes each. I suggest that they do that. Then I will open up the meeting to questions from committee members.

Alison Bourne: We thank the committee for allowing us the opportunity to speak this morning on behalf of the six objectors in Groathill Road South and Groathill Gardens East.

We would like to point out that none of the objectors whom we represent is a financial expert. However, what we have learnt about the financial aspects of line 1 we have learnt through being sceptical about the figures put forward by Transport Initiatives Edinburgh, and we would like the committee to know that we have found it difficult to elicit proper responses from TIE, which has repeatedly chosen simply to refer us to background papers. Those reports are lengthy and complex, but they raise some concerns. We find it strange that although the original preliminary financial case was approved by the full council on 11 December 2003, it appears not to have been approved by council officials—particularly the director of finance. The updated PFC, which has now been submitted to Parliament, has also not been approved by the director of finance. The updated PFC was submitted by TIE, and at this point the promoter is taking no responsibility for its contents.

We find the review by Ove Arup & Partners Scotland Ltd of the updated PFC very interesting. Many of the points that it raises relate to concerns that we have been expressing for some time, including the low level of optimism bias, which TIE

currently maintains is adequate at 25 per cent. Given that so far no detailed design has been undertaken and that TIE has offered little explanation of how it is to deal with the complex engineering problems on stretches of the route, and given the lack of precise cost estimates, we also feel that the optimism bias is too low. Inflation at 3.75 per cent alone between 2003 and 2006 would account for more than £28 million and would effectively erode the contingency.

What we are keen to discover is what the total public expenditure for line 1 will be, including interest on possible borrowings, increases in construction costs, outstanding public realm costs and compensation to businesses. We suspect that the total cost will be significantly higher than the quoted £243 million.

We are similarly perplexed about the reliability of the patronage forecasts. Line 1 was originally predicted to have an annual patronage of around 20 million passengers. That figure has now dropped by a third to 12.97 million in 2026. Finding the best alignment is clearly crucial to financial viability, and we would be interested to learn what Transdev Edinburgh Tram Ltd's feeling about that would have been if it had been involved from the start. To concentrate the alignment so much on serving incomplete property developments in the north of the city, while ignoring existing major public facilities elsewhere, seems wholly inappropriate to us.

The revised PFC seems to suggest that the public sector will fund the operating costs of the tram scheme, so it is important that the public be aware of the scale of such a subsidy. The proposed tram stop at Craighleith is claimed to be the fifth busiest tram stop and is forecast to attract 334 passengers in the morning peak period, rising to 429 in 2026. TIE has advised us that those passengers are not commuters but local people. We are not aware of any major development being planned in the catchment area. We have conducted our own count of bus passengers boarding within 400m of the Craighleith stop. It totalled 89—a fifth of the 2026 anticipated patronage level.

The stop at Lower Granton Road is anticipated to be the second busiest stop. It is in a special protected area and there will therefore be no future housing or commercial developments. TIE anticipates 369 passengers boarding there in the morning peak in 2011, and 559 in 2026. Our bus passenger count, covering 400m either side of that stop, showed only 17 passengers boarding. The alighting figure is even more bizarre, with the anticipated figures being 124, rising to 156, compared with the actual figure of only one. The figures for the stop at the West Granton access road are the third highest and again we feel that

the figures may be unreliable. We are troubled to learn that TIE used 1991 census data, because the catchment area around the stop is being redeveloped and we feel that it is different now from how it was 13 years ago. It is an important stop, because it serves the social inclusion partnership area, but it is virtually cut off from half the residences.

We are anxious to establish the ultimate costs of construction and operation for line 1 in order that the public may decide whether line 1 represents good value. We thank the committee again for allowing us to voice our concerns.

10:30

Bill Raynal (Wester Coates Terrace Action Group): Good morning. We thank the committee for giving us the opportunity to speak at the meeting. I will make a short, joint opening statement on behalf of Douglas Brown and me.

We confirm that we are residents of Wester Coates Terrace and that we are giving evidence as representatives of the Wester Coates Terrace action group. Therefore, when we use “we”—or, inadvertently, “I”—we are referring to the collective views of the group. We have based our analysis on publicly available information that is published on the Parliament’s website and TIE’s website. We welcome the recent publication of the financial model data, but it is disappointing that, despite repeated requests, that information was not made available earlier. That has left little time to scrutinise the information and provide appropriate comment.

Our written submission on the preliminary financial case and our previously stated objections have made it clear that the Wester Coates Terrace action group believes that there are serious questions concerning the financial projections for line 1 in each of the key areas of economic benefits, capital costs, revenue forecast and operating costs. Consequently, we do not believe that, with the Executive’s contribution of around £210 million, the line 1 scheme is financially viable. We invite the committee to question us on our evidence.

The Convener: Let me lead you gently into the questioning. Obviously, both groups of objectors on the panel are concerned about a possible funding shortfall in the construction and operational costs for line 1. Can you, having considered the updated preliminary financial case, summarise what you perceive the level of risk of that funding shortfall to be and what the consequent implications would be? I am picking on Mr Raynal first.

Bill Raynal: Thank you very much. I am no expert on the capital costs of construction. I would

leave that to TIE and I have no reason to disbelieve Arup’s report, which says that TIE has done a thorough job in getting the best estimates that it can get. I guess that much depends on what is commonly known in the game as optimism bias—the committee is considering that aspect—and what element needs to be added to that.

The financial model shows that the inflation-adjusted cost for the first five or six years for line 1 comes to about £328 million. That is significantly higher than the amounts that have been quoted to date. However, to be fair, the model is based on the equation of the original capital cost plus the optimism bias as adjusted for inflation. The capital grant of £210 million is for the combined cost of lines 1 and 2. Therefore, we question how resources to address the capital shortfall between the share of the capital grant for line 1 and the figure of £328 million will be found. Nothing that has been published so far indicates that a gap of such magnitude can be covered.

The Convener: What are the implications of the shortfall?

Bill Raynal: There are two possible implications. First, the council or the Parliament might have to decide to take money from elsewhere, which would become a funding question for the Parliament about what it wanted to spend money on in relation to Scotland and the environment. Secondly, it could come down to borrowing, which would become a question of how to fund on-going borrowing requirements. However, as I said, I am not an expert on public finance.

Alison Bourne: We have a few points to make. As I said earlier, one of the main problems is the level of optimism bias. My reading of a Department for Transport report that comments on the complexity of the technical aspects of rail and light rail schemes is that line 1 should be regarded as a non-standard civil engineering project and that, therefore, the optimum bias starting point for line 1 should be 66 per cent. However, TIE chose the standard civil engineering optimism bias starting point of 44 per cent for line 1.

Line 1 has some difficult problems to negotiate, including the stretch along Lower Granton Road and the Roseburn corridor but, at this point, TIE seems to have no answer to the question of how it will deal with them. It says that it has carried out cost estimates, but we wonder what it is estimating, as it has not come up with a solution to those problems. We would have thought it more appropriate, at this stage, to adopt a higher optimism bias.

Arup has picked up the same point and suggests a 57 per cent optimism bias. We had a look at the report that that was taken from—it is a

guidance report from the Department for Transport. The report is very interesting because it is all about the tendency of promoters deliberately to underestimate optimism bias out of concern that, if they said from the outset what the final cost may be, they might not be allowed the funding and schemes would never go ahead. The report says that promoters deliberately understating costs in order to secure funding for their projects is a systemic and global problem. That worries us a lot. Major construction projects rarely come in on the budget that was stated at the outset.

The second thing that the report highlights is benchmarking. We are not financial experts, but the report from the Department for Transport seems to suggest that, when promoters talk about benchmarking costs against other schemes, they are actually benchmarking costs against other schemes that have later gone into cost overrun. Virtually all the light rail schemes in the United Kingdom have gone into cost overrun. We are not quite sure which schemes TIE is benchmarking against. As I said before, we are concerned about the lack of detailed cost estimates and estimates for public utilities work and diversions, which we understand can be very expensive and are difficult to estimate at the outset. Only when the roads are opened up can the extent of the work that needs to be done be seen. We are concerned that, at this stage, there are no such estimates for us to see.

The Convener: We will explore some of those points in more detail.

Rob Gibson (Highlands and Islands) (SNP): Paragraph 25 of the submission from the group represented by Alison Bourne and Patricia Craik says

“the use of private finance results in a higher long-term cost of a project”.

Can you elaborate a little on that?

The Convener: While Alison Bourne and Patricia Craik look through their notes, I advise the panel that the first section of our questioning will be directed at them, so Bill Raynal and Douglas Brown can relax just now.

Alison Bourne: Sorry—which paragraph?

Rob Gibson: Paragraph 25. You say that

“the use of private finance results in a higher long-term cost of a project”.

Alison Bourne: It is unclear to us exactly how much the Scottish Executive is prepared to allocate to line 1 alone. The background paper seems to suggest that the allocation is £210 million; however, in its response to objectors, TIE has suggested that the whole £375 million could be used to construct line 1. I think that TIE has said the same thing for line 2, and we are confused about that. If there is a shortfall to be

met and TIE borrows money from the private sector, a premium will be charged on that money—it will be much more expensive. Arup went into the costs of hybrid options, private finance initiatives and that sort of thing. The cost of going down that route could turn out to be much higher than the £210 million from the Scottish Executive.

Rob Gibson: You say that it could be much higher, but I suppose that it depends which model is adopted. A bond model could be used.

Alison Bourne: Absolutely. We are no financial experts and we do not claim to be experts on PFI or hybrid options. However, you have only to consider how much more expensive it was to go down the PFI route for the new Royal infirmary to see that it would be cheaper to get a whole grant.

Rob Gibson: I can only agree; however, the committee must explore the potential of different models as we may have to ask questions about them in the future.

In paragraph 26 of your submission, you say that

“patronage forecasts seem laughably high”.

You covered that in part in your opening statement.

Alison Bourne: Yes, I mentioned in my statement the bus passenger counts that we have undertaken. We are very concerned about the patronage figures that are being put forward. At the start of the consultation, TIE said that line 1 would have a patronage of about 20 million passengers; however, that figure has come down and down. That suggests to us that expert and detailed modelling is far from being an exact science. The figures do not seem to be being adjusted upwards; they are progressively coming down.

We see the number of bus passengers who get on at our local stop every morning, and we wonder how on earth such high figures can be projected when no development is planned to take place there. There is a retail park, but that is virtually all constructed now. It is a busy retail park, and the shops that are there tend to attract car drivers rather than public transport passengers. We have a Homebase, a Currys and a Sainsbury's, from which people buy heavy goods. It is quite interesting to watch the car park in the mornings, as most of the cars park at the Homebase end.

Rob Gibson: It is important to project ahead for different patterns of transport use that could develop for a lot of reasons, not least because of congestion charging, for example.

Alison Bourne: My understanding is that the tramline has been modelled without congestion

charging or anything else being taken into account. Our figures reflect how it would be if the tramline were in place now, taking account of future developments in the north of the city. We can see no explanation for the differences between the figures for the Lower Granton Road stop. TIE has said that it has based its patronage projections on patronage coming from a zone and that there may be displacement between one tram stop and the next tram stop down the line. However, in the case of Lower Granton Road, we are talking about the difference between 369 to 559 passengers and 17 passengers, which is the number that we counted. That is a huge displacement. We would have thought that displacement to stops on either side would be in the region of 10 or 15 per cent, not 170 people. As I said, the alighting figure that we counted was one person, not the 124 or 156 people whom TIE anticipates. That is a big, big difference.

The patronage issue is important and is one of the main areas that the National Audit Office picked up on. Promoters often overstate the anticipated benefits and patronage of a scheme. As ordinary people, we are worried by the scale of the difference that there seems to be between our figures and those of TIE.

Phil Gallie (South of Scotland) (Con): You are concerned on two fronts: the construction aspects and the running and revenue aspects. You just made a comment about PFIs in reference to the Royal infirmary and you referred to the important fact that the costs of projects are perhaps overstated at the beginning, so that they gain in popularity. It is quite ironic that you say that while sitting in this building, which is a good example of such an approach—although I must point out that it was not a PFI.

Alison Bourne: I did not mention it as being one.

Phil Gallie: No, I am aware of that. However, the cost overrun and the optimism about the cost lend some credibility to your comments. In paragraph 82, you refer to computer models. Do you have any information about the date on which the models that have been used were based?

10:45

Alison Bourne: To be honest, it had not occurred to us to ask for that date. We would have assumed that the most recent date was used. We note that Arup seems to have spotted that a model dating from 1997 was used despite a more up-to-date version being available. That bothers us. Why was that the case? Why not use the most up-to-date version? We are talking about trying to model a scheme years before it is going to come to fruition. We would have thought that it would be

important to use the most up-to-date model available. We do not understand why a 1997 model has been used for a scheme that will not be up and running for another 12 years.

Phil Gallie: On that basis, would you care to hazard a guess in relation to your concerns about the 30 per cent margin of error?

Alison Bourne: TIE was very reluctant to give us the bit of information to which you are alluding, and its representatives categorically refused to answer questions about that. We had to go to Mr Andrew Burns and ask him to elicit a response. TIE's reluctance deepened our suspicions. If the modelling was all right, could not someone stand up and speak for it? What was the problem with giving us the name of the model that was used? If it carried a 30 per cent margin of error either way—there could be an underestimate of 30 per cent as well as an overestimate—that would mean a big risk. Patronage figures of 30 per cent lower than TIE is anticipating for a scheme that already seems to be pretty finely balanced with regard to the requirement for subsidy could make a big difference to the revenue forecasts.

Phil Gallie: You referred earlier to the Craighleith stop and suggested that there would be very little development in that area. You presented figures demonstrating that usage would be extremely low. Have you passed those figures to TIE—in a helpful manner?

Alison Bourne: No. I will explain what has happened. We have been asking questions about patronage for quite some time, especially at the Craighleith community liaison group. TIE deems the issue a matter of principle and so has been unwilling to discuss it at the CLG's meetings. We considered that the matter was of local relevance, however. It would be surprising if the tram stop at Craighleith achieves the figures that are being anticipated. We can see the number of people who get on buses in the area, and it is nowhere near the number of people that TIE says will get on the tram there. For TIE to achieve its figures, there must be a certain number of commuters involved. That has implications for the area with regard to parking problems and so on.

Margaret Smith has recently started to chair our meetings. We find that she manages to elicit somewhat better responses from TIE than we have been able to. Last week, we asked TIE about its bus-stop count—its verification exercises. We asked when those bus counts had been carried out and whether we could see the results. TIE answered that they had been carried out about two years ago. Mott MacDonald said that the City of Edinburgh Council would have the results. The council said that it did not have the results, however, as it did not carry out the counts. Mott MacDonald then said, "Oh well, they must have

been done by Lothian Buses", yet we know that Lothian Buses does not have information for each bus stop. That worries us even more. Where are those verifications?

Phil Gallie: What you are saying to us now contrasts with the evidence that we took from Lothian Buses last week, which suggested that virtually no contact had been made on the issues. That deepens the mystery.

Alison Bourne: Yes, it does. I read the evidence from Lothian Buses. TIE and the promoter are keen to demonstrate how thoroughly line 1 has been assessed and appraised from the beginning. In preparing for today's meeting, I have been reading all the reports from the start and noticed that the Anderson report—the first report—contains a list of people who took part in a steering group at the beginning of the process. Lothian Buses is prominent on that list. However, in its evidence to the committee, Lothian Buses said that it was not consulted at all.

We have a strong suspicion that that is TIE's usual technique—at that time, it would have been the council's usual technique—for consultation. It did not actually ask Lothian Buses whether it felt that this was a good route that would yield maximum patronage, just as it did not ask local residents why we felt that those patronage figures were worryingly high. We are concerned about the whole basis of the scheme.

Helen Eadie (Dunfermline East) (Lab): I would like to move on to the issue of modern tram buses and high-tech guided buses such as the Irisbus Cavis, which your evidence suggests could produce a step change in public transport provision in Edinburgh. In what way do you believe that those modern buses can address the speed and capacity gains that the promoter believes only trams can deliver?

Alison Bourne: The Cavis bus is interesting, but my personal favourite is the StreetCar, which is coming on line. I have all the information about it here. It is receiving a great deal of publicity, and when I spoke to the manufacturers last week they told me that representatives of the City of Edinburgh Council had been down to have a look at it and were quite interested. It is going to be trialled in Manchester and South Yorkshire. It looks for all the world like a tram, but the difference with the StreetCar buses is that Wrightbus Ltd and FirstGroup will sell those buses only to cities that are prepared to put in priority measures such as green lanes and priority at traffic lights. They have the image of a tram and they look like a tram inside, but the big difference is that they do not require the infrastructure that a tram requires.

StreetCar buses are also cleaner than trams, which is quite important to the people of Edinburgh. We have been told that trams are clean and that trams can do this, that and the other, but when we look at the background papers we find that that is not strictly speaking the case. Although they are not on the market at the moment, it would appear that those buses are a cleaner form of transport, and they have an image that would appeal to public transport passengers and to new users because they will be given priority measures. The BMW driver whom TIE is trying to attract on to the trams would probably be just as willing to sit on that very fancy, trendy bus to reach his or her destination in exactly the same time.

Wrightbus was reluctant, at this stage, to tell me what the exact capacity of the StreetCar was, but it thought that it would be comparable to that of an articulated vehicle, which holds approximately 145 passengers. Obviously, you would need more StreetCars—probably two—to one tram, but what you are saving on construction costs and on the cost of infrastructure buys you a fleet of clean StreetCars, as opposed to a very fixed tramline that benefits only a small number of transport users.

Returning to the patronage issue, I think that TIE is now talking about using thinner trams. My understanding is that thinner trams carry about 250 people, as opposed to the wider trams, which carry 300, so TIE already seems to have a problem with the loadings on the line. The maximum loading on line 1 appears at Craigleith in the morning peak period at 2,415. Eight trams with 250 people on each adds up to 2,000 people, so there is already a loading problem. It just takes a new public transport user to turn up once or twice to find that they cannot get on a tram because it is crowded for that user to go back to whatever their patterns of travel were before. The StreetCar, on the other hand, can obviously go straight into the new developments, and there could be lots of them, so they would be more attractive to new users.

Helen Eadie: In paragraph 72 of your submission, you refer to the effect of inflation and rising construction costs. Could you explain what you believe those effects to be and how you believe they will impact on the project?

Alison Bourne: I cannot predict what is going to happen to inflation or to construction costs. We have just done a rough calculation that is based on TIE's figure of 3.75 per cent, which breaks down into 2 per cent for inflation and 1.75 per cent for construction inflation. My calculation is only for the three years between 2003 and 2006, but that already accounts for £28 million. Edinburgh's construction industry is booming and I believe that

3.75 per cent is a conservative estimate of the rate of inflation. Given how low the optimism bias is, we worry that the effects of inflation have been underestimated.

The Convener: We move on to the Wester Coates Terrace action group. I hesitate to say this, but although the session is not about governance issues, we thought that it would be appropriate to let you put on record your concerns about governance. Can you explain your concerns about the relationship between TIE and the City of Edinburgh Council with regard to the status of the updated preliminary financial case?

Bill Raynal: The Wester Coates Terrace view is that we can have all the models and all the best advice in the world, but the success of this venture will come down to the people who will be responsible for delivering it. We have asked questions about accountability, but it is unclear who is accountable for the figures that are before us today and those that have been presented previously. That remains a significant issue for Wester Coates Terrace residents. If the tram venture is to be a success, accountability for delivery must be clear. As Phil Gallie said, we need look no further than the feedback to the Fraser inquiry on the Holyrood building—immaculate as it is—to see the force of the point about accountability.

We are concerned about various aspects of accountability. We have had correspondence that suggests that the council's finance directorate has not yet given an opinion on the figures that we are considering today, despite the fact that changes to the PFC mean that the best part of £100 million has disappeared from the predicted economic benefits. There is also a question over the parking revenue that is forecast in the PFC. Moreover, although I know that we are not here to debate line 2, there is a question over the Newbridge section of line 2.

I am concerned about the fact that the council has not yet approved the PFC. That does not mean that the council would not approve the PFC, but the current situation muddies accountability. If accountability is muddled, the PFC is everybody's responsibility, but if it is everybody's responsibility, it is nobody's responsibility. I do not claim that anyone is going out of their way to avoid accountability, but there are interesting relationships between TIE, the city development department, the council and the Executive. Many parties are involved, but it is not clear to me who is ultimately responsible for delivery of the figures that we are discussing, which will eventually be put before the Parliament. It may become clearer who is responsible, but it is not clear today.

Helen Eadie: Can you say more about your concerns in relation to the promoter's operating

surplus figures, given the potential annual life-cycle replacement costs?

Douglas Brown (Wester Coates Terrace Action Group): There is a fine balance in the projections between the operating revenues and the operating costs, which leads to a fairly marginal overall business case, particularly when the life-cycle replacement costs are taken into account. According to the projections that we have seen, it will be 2017 before operating revenues will cover operating costs and life-cycle costs.

Bill Raynal: When our group submitted its response, we did not have access to the detailed cash-flow figures to which I alluded in my opening statement. We now have those figures and we can see what the life-cycle replacement costs are.

To be fair, the promoter and TIE are saying that the scheme will just wash its face over the years. However, when we look at the cash-flow figures for 2026, we can see that, by and large, they are still not better off than they were when they finished construction—the scheme is still washing its face. We now have the annualised elements of the life-cycle replacement costs, which we did not have when we were writing our submission. If someone wants to look at them, I am sure that they will be able to see the figures.

11:00

Rob Gibson: In section 3 of your submission, you express concern about the robustness of the predicted revenue. What are your specific concerns about the predictions and, from the financial case document, on whom do you believe the risk of not meeting the revenue predictions will fall?

Douglas Brown: First, I will cover our view of the risks in terms of the predicted revenue. As I said, we are not experts on financial modelling. It is clear that a lot of work has been done on the detailed models, but we all understand that a model is only as good as the information that is put into it. If one looks at the predicted revenue more from the commonsense point of view and on anecdotal evidence from other tram schemes, one can see a huge number of associated risks.

In particular, the line 1 loop does not serve all the key destinations that we would have liked it to serve—the hospital, schools and so forth. It will follow the route that is available to it instead of a route that has been designed to meet public need. Given that the line does not replace an existing transport route, it will be entirely dependent on new custom or on a modal switch from the car.

From information that I have heard anecdotally, the rule of thumb that tram operators use for a new tramline is that it ought to be on a transport

route that is capable of supporting 25 buses per hour. I believe that that information was given in the context of the Sheffield tram. Although the figure of 25 buses an hour might be perfectly viable for Leith Walk, it is certainly not viable for the rest of the loop line, as Alison Bourne's evidence has indicated.

Bus competition is another area of concern. We are aware of moves to try and create an integrated scheme. Nevertheless, as bus operation in the city is private, commercial interests are at stake. A further area of concern is the over-optimistic view that is being taken on the speed of take-up. I think that the prediction is for a jump to 7 million passengers in year 1, which is a very sudden take-up.

The development of the area that the loop will serve will not happen all at once on the day that the tram opens—houses will have been built and offices opened—so other transport links, such as bus routes, will be necessary. By the time that the tram opens, people will have found other ways of getting to their destination. The expectation that everyone will suddenly switch to the tram in year one—or even in years two, three and four—is perhaps a bit optimistic. The tram stops are widely spaced relative to alternative modes of transport such as the bus. All those things call into question the patronage figures and therefore the predicted revenues.

I have one final piece of information in respect of the comparisons that can be made with other tram schemes. TIE was kind enough to take a number of residents to Lyon so that we could view the tram scheme in that city. It was an interesting and helpful visit, which showed that the contrasts between Edinburgh and Lyon are quite stark. The tram system in Lyon is built in a newer part of the city that has wide streets. The route was specifically designed to zigzag between destinations such as schools, hospitals and colleges. As the tram replaced an existing trolleybus scheme, it had an existing patronage.

I know that the way in which tram schemes are funded in Europe is different. Nevertheless, the information that we were given in Lyon was that the cost of a ticket covered only one third of the total cost of the journey. Clearly, although some of the subsidy was going towards paying the capital—because the city of Lyon did not have the benefit of an upfront grant—it appeared that the revenue did not cover even the operating costs, and we are talking about a tram scheme that was specifically designed to serve key destinations.

That sums up our concerns on the revenue risks, but I am not sure that it fully answered the question.

Rob Gibson: It was fine.

Bill Raynal: Can I add a couple of quick points? We did not have full details of the patronage figures—they have not been made available publicly, and I am not sure that they can be found on any of the websites. However, to be fair to the promoter and TIE, on either Thursday or Friday last week we got access to those data. It would be fair to say that going from zero patronage to 7 million passengers practically overnight would be a big step. I commend the Arup report, which says that an analysis with a more gradual ramp-up might be more valid. However, I do not think that it would make that much difference to the end-of-the-day cash flows that the project is forecasting.

There is one statistic that I ask the committee to take away out of the evidence. In the economic case, roughly £116 million of net present values will flow from tram revenues, and only £40 million will be lost in bus revenues. That is an uplift of 300 per cent. In their evidence last week, Neil Renilson and Bill Campbell made it clear that they do not see many switchers from cars to trams, which poses the question: where are all those passengers coming from? They may well come from the new developments—I am not a development expert—but that sounds like a significant move and needs to be substantiated. It takes us back to the optimism aspect.

Rob Gibson: Thank you. Your thoughts on such things are valuable to us for our future questioning.

Mr Jamie Stone (Caithness, Sutherland and Easter Ross) (LD): I accept the fact that you are not experts on modelling, but we are just trying to flesh out as many points as we can, as Rob Gibson said. You have made it clear to us that the updated PFC does not enable anyone to say a great deal about projected capital and revenue costs. Indeed, you are pretty much telling us that it is virtually of no use. My question is twofold. First, in addition to what you have talked about, what would you like to see in the detail of the PFC? Secondly, is it fair to expect that sort of detail to be included in the PFC at this stage of the project?

Bill Raynal: We would have expected someone somewhere to have put their name to the figures and to have been prepared to support them before we got to the point of discussing the project in this building. I would have expected to see that sort of information, but we appear to be running in a parallel process. I am sure that the promoter and TIE will say later that there will be an outline business case, and they have clearly commented that that is the general procedure that will flow in March. At that point, the figures will be somewhat more crystallised and people's feet will be more nailed to the ground in relation to delivering on them. Until then, the matter remains a little unclear.

What more information would I expect? I guess that I would not expect any more information. I would expect everybody who is involved with the council or Government, all the way through, to be fully aligned behind the figures that are available and not necessarily to reserve their positions.

Mr Stone: I accept that point, but let us have some blue-skies thinking. Accepting the fact that you are not modellers, do you have any suggestions for us? What sort of information might be useful?

Bill Raynal: For some time, both Arup and I have called for a simple table that says how many people will get on each year who are new to trams, who switch from cars and buses and who use public transport because of developments. A simple table such as that would enable us all to take a commonsense approach to deciding whether the scheme was viable. The buying-in of Lothian Buses to the process of the patronage numbers would also be very useful; I guess that that is now happening. Those are the two main things. We could model from here until eternity and we would probably get no better figures. We need accountability and a simple table that tells us how many people will switch from which areas. My understanding from the Arup report is that that information is not yet available.

The Convener: We may pursue those points later.

Phil Gallie: Alison Bourne identified figures that TIE released on potential usage at Craighleith and Lower Granton Road. She has checked those figures and found a disparity. On reading your submission, we find that 45 per cent of the economic benefits of the scheme will come, in essence, from car and freight displacement. Could the differential in Mrs Bourne's figures have come about because the people from the areas to which she refers all currently use cars, but will do an about-turn once the tram is introduced?

Bill Raynal: I do not think that that is the case at all. Transport initiatives throughout the country are considered according to the same process that the promoter and TIE have followed. That process is outlined in the second Scottish transport appraisal guidance document—the STAG 2 document—which endeavours to highlight the real economic benefits of the scheme. Those benefits are wide and varied—that might be the best way of describing them, from what I can read into the document. We would profess that TIE and the promoter have taken on board and followed those processes at face value.

It is clear from the STAG 2 document that TIE and the promoter claim that the benefits of the introduction of a tram include faster journey times for cars. That is possibly true, but it cannot be the

principal reason for the introduction of trams to the city of Edinburgh. If 45 per cent of the benefits are for improved journey times—covering cars and trams—that is significant. In fact, it is so significant that it is called out in a line of the STAG 2 document itself.

Phil Gallie: Thank you for that helpful clarification.

The committee received oral evidence from Scottish Enterprise Edinburgh and Lothian about the economic benefits that will be brought to the city. How would you respond to SEEL, given the comments that you have just made? Why should SEEL wish to advance the scheme in the interests of the city if you have identified real concerns about the facts that lie behind its assertions?

Bill Raynal: The view of the Wester Coates Terrace action group is that, with a circular line no more than 2 miles from the centre of Edinburgh at any point, it remains to be seen whether economic benefits will be generated as a result. A circle line has existed in my native city for a long time, and I do not necessarily believe that it has helped to regenerate that city—or rather, I do not view it as having been a vital component in that regeneration. The service could help, but I do not view it as vital, as has been suggested in some of the evidence that has been given.

Alison Bourne: I have read the evidence from the Edinburgh Chamber of Commerce about all the benefits and future prosperity that it sees flowing from the introduction of trams to Edinburgh. That made me laugh. It backed up something else from the report that I have been reading from the Department for Transport website. That report says that businesses are generally in favour of anything that they get for nothing. The business community welcomes the tram scheme because it is not costing it a dime—it is all coming out of the public purse.

I was interested to hear the view that the benefits that will flow to the Edinburgh business community will be extended to the rest of Scotland. On the basis that the Lyon tram scheme has resulted in the introduction of a payroll tax on businesses that receive a benefit from the introduction of the scheme there, we suggest that members of the chamber of commerce and representatives of businesses in your constituencies all over Scotland might like to contribute to the Edinburgh tram scheme if it is considered such a vital investment for the future growth of the country. If businesses have to put their money into the tram scheme, we might find out very quickly how keen they are on the scheme and how much they consider it to be vital for Edinburgh.

Phil Gallie: It is fair to say that most businesses feel that they pay too much to local government already.

Alison Bourne: I suspect that they might just feel that way.

Phil Gallie: The money is not paid in a localised way. That gives some validity to your point.

11:15

Alison Bourne: Such a measure has been taken in France. I am trying to point out the differences that exist. The Department for Transport's report suggests that, whenever the Government gives money towards a major construction project, all the key actors tend to be delighted: they practically bite the Government's hand off. The report also highlights the fact that promoters try to contain the true implications of construction costs and potential subsidies until the construction scheme concerned has reached the point at which it would be very difficult, politically, to withdraw from it. That is a worry in this case.

We have had such trouble in getting our questions answered and in getting TIE to hand out information. Why? If everything about the scheme was sound, why did TIE not answer our questions from the start? We have the definite feeling that TIE is trying to keep everything contained and controlled for political reasons until the scheme is committed. It would be very embarrassing for the scheme to be dropped at this stage. That has been the case with countless construction schemes around the globe.

The Convener: It is my understanding that the business community in Nottingham was not as keen as you suggest is generally the case. I reinforce Phil Gallie's point that businesses already contribute to the public purse.

I thank all the witnesses. This has been a most helpful and enlightening evidence session. I thank Mrs Bourne, Mrs Craik, Mr Raynal and Mr Brown. We appreciate your efforts in unpicking the preliminary financial case. We recognise how much of a challenge that is, particularly if people do not come from the relevant background. We are grateful for your interest.

I ask the next panel of witnesses to step forward. Members may take a one-minute comfort break as the panels of witnesses change over.

11:16

Meeting suspended.

11:20

On resuming—

The Convener: I welcome the second panel: Graham Bissett and Mark Bourke from TIE, John Watt from Grant Thornton UK LLP and Les Buckman from Steer Davies Gleave.

Please forgive me, Mr Buckman, for the question that I am about to put to you before we begin our questioning. I understand the role that Grant Thornton played and what the TIE representatives are doing here, but—although you are always welcome in the committee—I do not understand the role that Steer Davies Gleave played.

Les Buckman (Steer Davies Gleave): Steer Davies Gleave led the demand forecasting and appraisal for the scheme. We pulled together the STAG appraisal.

The Convener: That is helpful. I needed to be clear in my own mind about that. I understand that you do not want to make a five-minute opening statement.

Graeme Bissett (Transport Initiatives Edinburgh): That is correct.

The Convener: Excellent. I will lead straight into our questioning.

You will be aware of the National Audit Office report of April 2004 in which a number of criticisms were made about the overestimate of patronage forecasts for other United Kingdom tram systems. I understand that the overestimates ranged from about 20 per cent to 40 per cent. I also understand that patronage is usually overestimated by as much as 25 per cent. If there was a similar shortfall in patronage in the early years of operation of tramline 1, what would the effect on the economic case be?

Graeme Bissett: That is a question for Les Buckman. Before I hand over to him, I will make one comment, which is that the NAO report was very useful to TIE. In a sense, we in Edinburgh are getting the benefit not only of its findings but of the experience on the ground of existing schemes—on the whole, English schemes, but to some extent schemes overseas, too.

Les Buckman: As far as I understand it, the question is, if demand forecasts were—let us say—25 per cent lower than those in the STAG appraisal, what would happen to the promoter's economic case. In broad terms, one would see a 25 per cent reduction in the benefits to public transport users—the transfers to tram will drive the bulk of the benefits. On the highways side, one would get much the same answer, as there would be the same level of modal shift. It could be argued that the highways side would be less

affected. I am sure that the figure would go down by a small amount, but not by the full 25 per cent.

The Convener: I guess that the question that I am asking is what that does to the preliminary financial case. If there is drop in patronage by a quarter, how does your preliminary case stack up?

Mark Bourke (Transport Initiatives Edinburgh): It is worth noting that the preliminary financial case is based around a build-up in the initial three years of the project and that a 25 per cent reduction is built into year 1. Therefore, if we were to experience a shortfall in the first period, that would have no economic impact on our case and no impact on our financial case.

John Watt (Grant Thornton UK LLP): It is also worth noting that the development partnering and operating franchise process that we went through included early operator involvement. One of the NAO recommendations was for such early private sector involvement and we have therefore had the benefit of Transdev's views. Transdev is saying that the numbers that it is seeing at the moment are base case numbers and that it expects to see an enhancement of those. The process of external market testing is already under way.

Phil Gallie: You referred to the fact that you had benefited from the NAO report. Will you remind me of when the report came out? What changes have you made to your financial figures, if any, because of the report?

Graeme Bissett: The report came out in April and we produced the updated PFC—the one that is on the table today—in September. It would be fair to say that the report did not change our financial projections materially. However, the relevant issues that it contains—which you might not want to go into in detail—concern, for example, the procurement strategy and how the risk can be taken out of the process until the latest possible stage. Another issue that is relevant to Edinburgh is the almost complete lack of integration dialogue between bus and tram operators in all the English schemes. That dialogue is under way in the Edinburgh scheme. We have not changed what we are going to do; in a sense, the report validated what we thought was the right thing to do in any case. We would not have directly changed the numbers that are in the PFC at this stage.

Phil Gallie: If you thought that it was the right thing to do, why did you not do it before? Last week, Lothian Buses said that there had been no dialogue.

Graeme Bissett: There could not have been, as we appointed Transdev as the operator only in May, when the contract was formally signed after a lengthy period of selection through the normal procurement process. Transdev needs to get

round the table with Lothian Buses to have a meaningful dialogue, which is way ahead of what is being done in most of the other UK schemes. In those schemes, the operator was not a feature of the dialogue until the day when the tram began to run. In most cases, the operator was part of the construction consortium; in Edinburgh, we have brought the operator in, effectively, five years ahead of time so that we can have a meaningful dialogue on bus integration and a range of other important matters, including the design of the system. That dialogue has now commenced, but it could not have commenced until Transdev was formally appointed.

The Convener: Sticking with patronage, let us move on to the nature of the people who will use the tram system. I believe that, although we have asked for that information, we have yet to receive it. I am looking for relatively simple details, absolute numbers and percentages for line 1 demand that would result, first, from modal transfer from cars; secondly, from modal transfer from buses; thirdly, from generated demand; and, fourthly, from new housing or business developments. Please do not give me a flurry of figures now; you can put those in writing. However, I need an absolute assurance that we will get that information.

Les Buckman: By and large, we can help you with your request. There is a slight issue over the fact that the framework for the modelling does not explicitly enable us to separate out car transfer and generated trips; it does not enable us to extract that information in broken-down form.

The Convener: On the basis of your experience, you could give us a reasonable guess, could you not?

Les Buckman: Absolutely. I could give you a ballpark estimate of what those figures would be.

The Convener: That would be very helpful.

Rob Gibson: Let us turn to central Scotland traffic model 3 and detailed assignment modelling. In some cases, TIE has indicated that it has updated the data that are used in patronage and revenue forecasting. To ensure that the underlying data are sufficiently robust to base line 1 forecasts on, can TIE provide details on the updating of the CSTM, which represents traffic movements in central Scotland and which was used to derive revenue and patronage forecasts for line 1?

Les Buckman: The basis for the detailed assignment models is the CSTM 3 model from 1997. The model development reports for that model are publicly available documents of which I have copies in my office. I can provide those after the meeting. I am not sure what you might want beyond that.

Rob Gibson: Given that we are holding this oral evidence session to discuss a matter on which there have been close questions, it would be helpful if we could discuss the matter instead of having to pore over figures. We are trying to establish why there were no formal checks of the results of the DAMs, to forecast the impact of line 1 on road and public transport.

Les Buckman: The DAMs were based on CSTM 3 in 1997 and were updated to 2001. In relation to public transport, a series of bus counts were undertaken about a year and a half ago to check flows against the base-year flows for 2001 and the flows were found to be broadly in line with the flows in the model. That is the basis for the contention that the 2001 model is robust enough to forecast the ridership for line 1.

11:30

Rob Gibson: Have you carried out checks against an independent data set, to ensure that the models accurately reflect the current transport conditions?

Les Buckman: The bus counts provided that independent data set.

Rob Gibson: Who carried out the counts?

Les Buckman: Traffic-count consultants carried out a series of bus counts.

The Convener: We are concerned that the data from 1997 are quite old. It is helpful that you updated the model to 2001, but we want to understand how you did that. You provided examples and I am sure that Arup noted the offer to follow that up. The committee will pursue the matter.

Mr Stone: This is a pretty straightforward question. Can TIE provide information on other UK studies on which the mode factor was based? If you cannot do so now, it would be useful if you could do so in writing.

Graeme Bissett: I think that we can do that.

Les Buckman: Yes.

Mr Stone: Will you follow that up?

Les Buckman: Yes.

The Convener: There are in-principle issues about the mode constant that is applied. Can you expand on those or give us any background on the matter? Given that you are here to give evidence, it seems daft that you are just going to write to us. The figures can be understood, but there are principles to be considered.

Les Buckman: You ask about mode constants. Transport models use a computer-based representation of the transport network in the real

world. For example, the model knows that bus 22 runs every eight minutes from Ocean Terminal, up Leith Walk, along Princes Street and on to Haymarket and further west and takes X amount of time to make that journey. We have such information for the entire public transport network. There is a similar representation of the highways network, which includes details about the road layout, junctions and other matters.

In addition, there is a matrix of trips, which knows that, for example, there are 20 trips from the foot of Leith Walk up to Haymarket and 50 trips from Ocean Terminal to Charlotte Square. Trips are what is termed "assigned to the network", to allow demand forecasting. I can then ask the model what my options are if I want to make a PT trip from the foot of Leith Walk to Haymarket. The model identifies a choice set, so it will tell me that I can use route 22 or route 16, for example. It will give me bus headway data and tell me that there are X minutes between each bus, that the journey takes X minutes and that the walk to the bus stop takes X minutes. In effect, the system builds up a picture of how long it takes to get from A to B.

The model very much involves what can be described as the tangible cost of travel. The time that is spent and the cash fare that is paid to the bus driver when boarding a bus are hard facts that can be grasped. What such a network cannot cover is an appreciation of modal preferences. To take an extreme view, it cannot capture the fact that someone would rather travel on a nice clean tram that glides along with smooth acceleration and has comfy seats and plenty of space than on some 20-year-old vandalised bus that is slow and goes over potholed roads.

The mode constant measures the perceived benefit of using the tram mode over the bus. In the modelling work that we have done, we have used an in-vehicle time factor. The term "mode constant" is a bit of a misnomer, because it is not a constant; it varies with journey length. If a journey is twice as long, the perceived benefit of having a nicer mode in which to travel is twice as much. That is what a mode constant is. The transport mode that people want to use influences their travel choices.

The Convener: I was not being perverse in asking you to explain what a mode constant is. It includes a bundle of soft measures of matters such as comfort, reliability and quality. As that is about what local people think, why did you model against other UK cities rather than research what Edinburgh residents think? I do not suggest that they are dramatically different from other people, but I would have thought that local research was more useful to you than examining other UK cities.

Les Buckman: That argument has some merit, but many studies tend to produce broadly comparable numbers. In my experience, up to eight or 10 minutes' travel time preference is typical for tram compared with bus. Some outliers may exist but, broadly speaking, the figures tend to be in a relatively narrow band.

For the average trip, the mode constant numbers for line 1 are of the order of four minutes. It is arguably right to ask why we did not undertake surveys specific to Edinburgh but, broadly speaking, the figures tend to be in a relatively tight band. We are quite conservative against most other survey results and experiences on other tramlines.

Mr Stone: Having let the subject go, I now want to return to it. I hear what you say about what the convener called soft measures, which compare a dirty old bus—those are your words, not mine—with a nice clean tram that has a smooth take-off. Surely such aspects can be quantified in Nottingham and Manchester. Hard evidence must exist.

I will go further back. You said that it was hard to quantify the modal transfer from cars and buses. The more I think about that, the more unsure I am of whether I agree. We are not thick. If the committee agrees, it would be useful if you spelled out as much as you can when you send us written stuff. If we do not understand, our advisers can give us explanations. The issue is crucial. Perhaps I do not have my colleagues' support—I do not know. I would like to understand the subject; otherwise, I would feel that I was failing in my role.

Les Buckman: Are you asking whether we can expand the notes?

Mr Stone: Can we have details, coherent explanations and information to show that what you have said about soft issues is right? I suggest that you can quantify things such as old bus—to use your words, not mine—versus new tram, as you have experience of what has happened in Nottingham, which surely must be an indicator to help with planning here.

Les Buckman: Unfortunately, information of real-world experience is relatively thin on the ground. Very little post-implementation monitoring of such factors is done, for whatever reason. I cannot say why. Going back to check the assumptions that have been made is not a standard practice.

Mr Stone: I find that statement surprising, but I will let the matter go at this point.

The Convener: It would be helpful to understand what the assumptions were and why you did not consider local research. It would also

be helpful if you could come back to the committee to amplify your comments.

Graeme Bissett: What has been said sounds surprising, but it relates to one of the NAO's findings. One of the NAO's criticisms of the mainly English schemes was that post-implementation monitoring was not more comprehensive and effective. I am afraid that the NAO report backs up the paucity of on-the-ground information.

Phil Gallie: Given the image of Edinburgh running 20-year-old ramshackle buses on bumpy roads, I am not sure whether my questions are now appropriate. That said, the TIE executive summary clearly states that one risk will be that tram and bus services are not well integrated. Work on the "innovative structure" that is being put in place to ensure integration is at an early stage. I am sorry to hark back to the evidence from Lothian Buses last week, but it seemed to me that we are not at any stage at all with Lothian Buses, which has not been brought into the picture until now. In view of what I have said, is TIE absolutely confident that the assumptions on bus reorganisation that are used in the central case are robust?

Graeme Bissett: I will spend a moment explaining the process. The point has been reinforced that the process is at an early stage. The mechanism that we have established with Transdev and Lothian Buses—which is a major part of the integration dialogue, although not the totality of it—is a company that has been set up called Transport Edinburgh Ltd, which members may have heard of. That company is 100 per cent owned by the council, so it is still within the family. The intention is that it will, in effect, gather management and a board of people—which I hope will be limited in number, but highly qualified—and that those people will orchestrate the service integration dialogue mainly between Lothian Buses and Transdev.

The company has been established and a series of what we have called shadow board meetings have been held, as the board has not formally been appointed yet, although the players, or the people who would be part of it, are now largely agreed. We hope that the board will be ratified in the spring by the council.

The dialogue on the corporate structures and on the main principles of how integration should work is under way, although I agree that there has not yet been a full dialogue on the next level of detail down. We must get the two teams—one from Transdev and one from Lothian Buses—together in a room over time to analyse the detailed design issues and other related factors for an integrated system. As I said, the corporate structure and overall principles of what we would like to achieve have been debated long and weary this year in

order to reach the point that we are currently at, but we are just beginning to get into the details of operational matters.

Phil Gallie: You must acknowledge that we are considering the financial case now and that a figure has been presented by TIE as the capital cost for the scheme. It seems to me that we have problems when issues of critical importance—to use your words—have not been cleared before we come to the expectation of the overall financial cost. Perhaps there are other issues that can be taken on board. What would happen if, for example, the bus operators were to adopt a more competitive response to any approaches from TIE? I recognise that, to a degree, we are looking at a monopoly at present, but that might change in future. People have been told how much the tramline will cost, so we are talking about a fixed sum of money. However, are we in a situation in which the committee will look pretty bad in four years when we find that the costs have gone through the roof?

11:45

Graeme Bissett: The risk factor is not so much the cost, which is likely to be stable at the current level. However, if there was a serious competitive reaction to the introduction of the tram—to take your scenario—the figure that would be most at risk would be tram revenue. That has been the case in a number of the English cities. I will not name names, but a number of the schemes suffered badly because the bus companies immediately reacted to the introduction of the trams, ran buses at subsidised fares against them and took tram patronage below the planned levels.

We can model only what is tangibly in front of us, which is a situation in which Lothian Buses has 80 per cent of the Edinburgh city bus market. Lothian Buses is a well-run and professionally managed company, as you know. It is also owned by the city council, which makes it not quite, but almost unique in the UK. In making the revenue projections for the tram, we assume that those factors can be brought together and made to work for the benefit of the project and the city. It is conceivable that, if we were dealing with a completely free agent or a commercial company that had 80 per cent of the local market, there might have to be a different dialogue. Nonetheless, we would enter into that dialogue in exactly the same manner.

We cannot sit here and say that there is definitely no prospect of an adverse competitive reaction by Lothian Buses in four or five years when the tram begins to run, but the objective is to bring Lothian Buses and Transdev together into an agreed pattern of service that constitutes the optimum when taken as a single public transport

system and to obviate the risk that Lothian Buses will decide to do something different.

It is also important to record that there is an inherent tension between service integration and the competition legislation. At the moment, the bus industry is deregulated, so we have had to spend a bit of time engaging with our lawyers and the council's legal opinion to ensure that the process that we are following in bringing the parties together does not breach any aspect of the competition legislation. That has taken a bit of time. However, at the moment, the planning is based on the assumption that we can bring Transdev and Lothian Buses together and that we will also have a dialogue with the other bus operators to arrange service agreements with them whereby they will be no worse off—we hope that they might be better off—when an integrated system operates. In that way, we hope to take away the risk of an adverse competitive reaction.

Phil Gallie: You have answered the follow-on question for me, because I was going to ask about the implications of single-market trading requirements. Have you included those in considering the overall trading feasibility?

Graeme Bissett: Yes, more to have the process that we are going through approved than for any conclusions. However, we have opened a dialogue with the Office of Fair Trading to keep it informed of what we have been discussing. Those communications will become more tangible as the planning and the integration ideas become more tangible over the next few months and the years ahead.

Rob Gibson: My question is about the increases that you project in the use of line 1 between 2011 and 2026 and the sources of that increase. Will you confirm that car use is forecast to grow by around 50 per cent between 2001 and 2026?

Les Buckman: Yes, by around 50 per cent.

Rob Gibson: Can that level of growth in car use be accommodated during peak periods or will the growth spread into the interpeak periods?

Les Buckman: That aspect of behavioural response is reflected in the modelling, which, at the strategic level, takes a series of time slices through the day and forecasts how many travellers there would be in each of the time slices. As part of the process, travel costs for each of those time slices are considered. Clearly, if the costs become excessive, trips move to the next time slice. The modelling reflects and picks up that peak spreading. The answer to the question whether the network can accommodate peak travel is, in effect, yes—the excess demand within the modelling framework spills over to the adjacent time periods.

Helen Eadie: The crowding function is used to reflect the fact that travelling on uncrowded services is preferable to travelling on crowded ones—we all agree about that. I accept that the crowding function that is used in the detailed assignment model is reasonable, but demand is forecast to be above capacity by 2026. Will TIE outline how the apparent overcapacity on tramline 1 by 2026 will be catered for and say whether other modes, particularly bus, will be overcapacity?

Les Buckman: The forecasts for the trams for 2011 are fine, but, as you say, there seems to be an issue with crowding by 2026, particularly on the western leg coming into town in the morning peak. We assumed the blanket figure that eight trams an hour will go round the loop throughout the day. If overcrowding occurred at particular points or times of the day, the timetable and the service pattern for the trams would be adjusted to cater for that. It would be pretty straightforward to tweak the system to give a lower level of service on Leith Walk—where there will be spare capacity in 2026—and run an extra tram or two on the western arm. Alternatively, an extra tram an hour might be run by using one or two of the spare vehicles.

Phil Gallie: Will TIE explain the justification for including the monetary economic benefits to car users in areas that are seemingly remote from line 1? For example, trips from west Edinburgh to south and east Edinburgh have been included as well as those from east Edinburgh to south Edinburgh. The STAG report highlighted that the figures presented on that issue were an overestimation. Will you explain why they were included in the first place?

Les Buckman: The travel time benefits to car users will be more broadly spread than those to bus and tram users. There will be a domino effect, working out from the city centre. As congestion is relieved in the area of tramline 1, car trips will reroute to take advantage of that, which will have a broader impact on car users than there will be on public transport users. The areas that we included are quite large. If one looks at a map, one sees that they cover a lot of trips that would pass through the city centre or close to it. Therefore, it was felt that it was valid to include those benefits.

There is an issue about the modelling. For networks of this size we can get what we term model noise. On that basis we left out, in effect, some of the benefits that would accrue to the more remote areas where it seemed unreasonable to claim benefits.

Phil Gallie: But they are a major element of the economic benefits. Previous reports have identified them as, I think, 45 per cent of the economic benefits. It is hard to identify major car

journey savings for those who use the inner circle route of tramline 1. How on earth can you justify the figure of 45 per cent, when it is acknowledged that tramline 1 will not have a major effect on car users?

Les Buckman: We will get a lot of small-time savings for a large number of car users.

Phil Gallie: But why? If people living around tramline 1 do not use their cars at present for the type of journeys they would take on the tram, how will savings be produced, even in time?

Les Buckman: I am not quite sure that I follow your point. The driver for travel time savings is that when the tram goes in we will get mode shift from car to tram. That will free up an element of road space, which will make car journeys faster, so time will be saved.

Phil Gallie: That is the very point that I am making. Today's evidence does not show that there will be a mode shift from car to tram on tramline 1.

Les Buckman: Are you saying that between west Edinburgh and south Edinburgh there will be no mode shift?

Phil Gallie: Not from car usage. People are not going to go from car to tram.

Les Buckman: Exactly. The number of trips will probably be the same from the outlying areas, but car users in those areas will benefit from having faster journeys, because the trips that will be taken by tram instead of by car will release some of the road space and therefore the highway network will become less congested.

I am trying to think of an analogy. Before the Edinburgh city bypass went in, all the trips from west to east went through the city centre. Those trips are now taken on the city bypass, but people who take journeys from Leith to Haymarket benefit, because fewer cars are in the city centre—they are on the bypass. That is the principle.

Phil Gallie: I understand the bypass argument, but I cannot understand why there would be car journey savings between Leith and Haymarket. Perhaps some of your colleagues could comment on that point.

Graeme Bisset: I am not sure that we can do better than Les Buckman has done. We are talking about a modelling issue, the assumptions that go into the model and the outputs that flow from them.

Mr Stone: I would like TIE to explain why benefits to movements from Haymarket to all other areas are some £36.6 million, while movements to Haymarket experience a disbenefit of £25.9 million.

Les Buckman: That is on the highway side. The issue there is the nature of the highway network. The way in which the road layouts and junctions operate will differ depending on which way someone is travelling. If, for example, they come to a junction and turn left, the delay in their travel time might be different from the delay that might arise if they turned right. It is conceivable that, in certain locations, there might be junctions where there is a benefit to turning in one direction and a disbenefit to turning in the other direction—for example, where a tramline has taken out a lane that used to be used for turning right. Strange as it seems, it is reasonable to expect different impacts depending on which way people are going.

12:00

The Convener: Will the differences be of that magnitude? We would have expected the numbers to be broadly similar, but there is quite a difference.

Les Buckman: That takes us back to my earlier point: we are talking about a large number of journeys being made. The morning peak-hour matrix contains 120,000 car journeys. Okay, that covers the whole of Edinburgh; however, the numbers in the PFC are projections over 30 years. If only 10 or 20 seconds are added on to each of those journeys, it soon starts to add up.

Mr Stone: My second question has probably been answered but, for the sake of clarity, can you confirm whether any allowance was made in the model process for generated highway trips taking up some of the available road space caused by car drivers diverting to tram? I think that you have touched on that, but can you please clarify that for the record?

Les Buckman: The short answer is yes. If there is a change in travel times for public transport or cars, the modelling framework will reflect that in terms of whether the level of demand goes up or down. There can be an element of new car trips in there.

Rob Gibson: Let us turn to the costs. It is important that we understand the relationship between the projected costs of line 1 on its own and the projected costs of line 1 and line 2 together. I ask the scheme's promoter to confirm that, if both lines proceed, the proposed allocation of Executive grant for the line 1 works is £210 million.

Graeme Bissett: Sorry, could you please repeat the last part of your question?

Rob Gibson: Can you confirm that the proposed allocation of the Executive's grant for line 1 works is £210 million?

Graeme Bissett: That is the allocation that we put in the PFC—it is £210 million out of the £375 million.

Rob Gibson: What sources and amounts of additional funding are considered likely to be available to cover any additional costs that are incurred due to contingencies, optimism bias, revenue risk or other factors during the lifetime of the concession?

Graeme Bissett: I will explain the sources that we are looking for, as it is a complex equation. Some of the points that were made earlier—apart from being entirely sensible questions—were a good example of the fact that this is quite a complex financial project involving several interactions. It is important to underline the fact that, although the word “subsidy” was used a couple of times this morning—and I understand why it was used—it is not a word that TIE uses or that has been used in any conversation that I have had with the council. The underlying financial objective is to demonstrate that the tram project will not require consistent or continuing subsidy, assuming that the projections are robust. Clearly, if that does not work out, that is a different issue and contingencies will be needed.

Rather than look at individual slices, we have to ensure that the totality of the funding—both its sources and its uses—makes sense. Your specific question was about what sources of funding there are likely to be in addition to the Executive grant and revenues from the operation of the scheme. There are probably four or five different strands, of which three are the most important. The modelled revenues are based on the transport model—in other words, what would emerge from the patterns of transport usage and travel around the city, or all the issues that we have addressed this morning.

However, there are two additional areas that we think are very important. The first is that the tram is an opportunity to generate advertising revenue, as is the case with Lothian Buses and other bus companies. We have examined that issue in detail with Transdev, on the basis of its experience elsewhere. At today's prices, the levels of income that that would produce for line 1 are in the order of £0.25 million to £0.5 million per annum; that estimate is at the low end.

The second area that we are considering is the flow of income to the council from contributions by developers of property around the tram routes. Members will be familiar with the concept of developer contributions. In April of this year, the council enacted a policy to provide a formula on which to base discussions with developers around the tram routes. Our property advisers, Colliers CRE, considered the matter in some detail. To be honest, the dialogue was not started in the expectation that developers' contributions would

be a significant flow of income. However, if we include the 750m to either side of the tram route, that covers about 46km², which is just short of 20 per cent of the city's land area. That is quite a substantial area of land, a lot of which has development potential.

Colliers CRE went through the tram routes line by line and area by area. That process revealed that another £0.5 million per annum might be available from that source. That estimate is based on future development planning, but the detail of the work that Colliers CRE has done shows that there are a number of areas around the route of tramline 1 where there is significant development potential and as a result of which contributions will flow.

At present, the tram is driving revenues from the transport model. We believe that if we market—in a sensible and even an aggressive way—tram and bus services as providing an integrated network and as being an easy and acceptable way for the people of Edinburgh to get around, the revenues that we achieve should be greater than those that the basic modelling numbers would indicate. We are considering specific scenarios with Transdev, such as what will happen when there are major sporting events in the city. All three of the main locations are on line 1 or line 2. We are also thinking about deals with students and other special groups. If we apply a bit of marketing common sense, we will be able to obtain additional revenues. One would expect the annual effect of such measures to be relatively small, but when we multiply that over 30 years—especially if we allow for inflation—the aggregate of that potential income is quite substantial.

For the sake of completeness, we are examining the development of council-owned land. Although the value of that is relatively small, it must be worth going after. The potential also exists to obtain income at tram stops from advertising and local kiosks and vendors although, again, that will not be a huge sum of money. The point is that we have considered a range of different additional sources of income. The main ones are those that have been identified by our property advisers and—perhaps more important—those that we can develop by applying Transdev's experience of other schemes. We will bring such sources of income to the table when we put the full business case together during the course of next year. At the present time, the aggregate of those sources of income gives us the comfort of knowing that there will be sufficient funds to cover the costs and allow for some contingency.

Rob Gibson: In your answer, you seemed to move between talking about line 1 on its own and lines 1 and 2 together. We are in a situation in which we must establish in our minds what

benefits line 1 on its own would produce. I asked you whether the £210 million from the Executive's grant would be sufficient, but it strikes me that the extra income from the things that you mentioned would be much smaller if we were talking about just line 1. It appeared that you jumped between talking about line 1 and talking about lines 1 and 2 together; I will read the *Official Report* to check that. I am not yet clear about whether the additional revenue will be sufficient to meet contingencies.

Graeme Bissett: I apologise if I did not make that clear.

Rob Gibson: That is all right. It is a factor in your overall thinking, but it is essential for us to know what the benefits of line 1 in particular will be.

Graeme Bissett: Absolutely. There is a basic difficulty arising from the fact that the grant is proposed as one totality and we have made an assumption that we would split it in the way that we have set out. That is not mandated in any way but it gives us a benchmark. For clarity, however, the situation is that the aggregate of the funding sources, the costs and the contingency stack up for line 1 and line 2 on their own, using that allocation of grant—£210 million to line 1 and £165 million to line 2. I am sorry if I confuse the two sums, but the numbers stack up when line 1 and line 2 are considered individually.

Rob Gibson: It is not a case of confusing the two sums but of confusing a project that includes both of them and a project that includes only the sum relating to line 1, which is what we have to deal with.

The Convener: I would like to ask some daft questions to ensure that I am clear about what you are saying. First, I take it that the figure of £11.6 million that we have for the private developer contribution is the aggregate, over 30 years, of the sources that you have talked about. Is that correct?

Graeme Bissett: No, that is an additional source of funding over and above what I have mentioned. That relates to in-principle agreements that have already been reached between the City of Edinburgh Council and developers, involving free land that has effectively been contributed as an asset. Our capital costings are taken at the gross level, as if we had to pay cash for all of that. That reduces the capital cost to that extent. The money that I was speaking about is over and above that sum of money.

The Convener: Were the other sources for revenue purposes?

Graeme Bissett: The other sources that I mentioned will be revenue flows over 30 years.

The Convener: I have another daft question. How is the amount of money that you thought you might generate from advertising affected by the fact that the route goes through a world heritage site?

Graeme Bissett: We started off with bigger ideas than we ended up with. The ideas that are now being costed are in keeping with the design manual for the trams and the stops in the world heritage site.

The Convener: I understand that you made an estimate of the costs relating to utility companies and utility diversions in December 2003. I am not aware that there have been any updates on that, so I hope that you will share any with us. At that time, some companies gave you detailed estimates, others gave a global figure and others were completely silent on the matter. As the matter is significant, can you provide us with an update of the cost of the works? Can you summarise details of the estimates from each utility company?

Mark Bourke: We have set aside £31.8 million for utility diversions. For line 1, we approached each of the utility providers to obtain a quotation for the scope of diversions that we anticipated.

I might have to get back to the committee in relation to the scope of the work that is anticipated but, essentially, our proposals were discussed with each utility provider and in addition to obtaining quotations, we conducted further benchmarking tests to verify the overall robustness of the costs. The committee will be aware that utility diversion costs are a key issue in all projects of this nature. The NAO report emphasises that greatly. Utility costs have resulted in cost increases in similar projects across the UK when insufficient contingencies were planned. Our approach has been to have dialogue with the various utility providers. As we move towards implementation of the scheme, we want to revisit in our detailed design the scope of diversions that we anticipated.

To reassure the committee, we have based our quotation on the sum of all the individual quotations that were provided by utility providers, and therefore have not built in any additional efficiency savings by, for example, moving two utility providers into the same hole.

12:15

In addition, we anticipate challenging the need to divert the utilities, because we have taken the conservative view that we will remove the utilities completely from underneath the swept path of the tram. There are potential capital savings if we go back on that to see whether there are alternative ways of protecting utilities or keeping them in place, and tolerating disruption if they require to be

accessed. We have maintained dialogue with the utility providers since obtaining the quotations, so we are dealing with their expectations of how to implement the scheme.

An important part of our approach has been to look at the overall procurement strategy for utilities. Some tram schemes have included utility diversion within the overall construction works. Our approach is fundamentally to move away from that in order to de-risk the possibility of programme delays or consequential cost increases that might result from utilities provision. To do that, we plan to identify the utility diversions as a stand-alone project and to run out those works in advance of the main works.

We are tackling utilities on a number of fronts. The comfort is in the quotations that we have obtained and the contingencies that we have set aside to cover uncertainties, but it is also fundamentally in our whole approach to procuring the diversions.

The Convener: That is helpful, given the position in December 2003. I take it that all the utility companies have responded in detail.

Mark Bourke: All the utility providers bar one responded. I am not sure whether the committee wants to know which one it was.

The Convener: Was it Telewest?

Mark Bourke: Yes, it was.

The Convener: There you go. We have done it for you.

Mark Bourke: We made all reasonable efforts to obtain a quotation from Telewest. As it stands, the scale of diversions that will be required for Telewest utilities is small, and we made allowances for them by using rates that were similar to those we obtained from other providers.

The Convener: The committee has not received any of that information, so it will be helpful if you share it, particularly the information on everything that you have done post-December 2003. Could you give us an idea of the timetable? The work will have to be defined more than it is currently, so what timetable is stretching out to the horizon?

Mark Bourke: The timetable up to operating a tram is complex to navigate. At this stage, we have examined the potential construction strategy that can be employed; that is, the way different stretches of the tramline can be constructed in a phased manner, by employing in parallel a number of teams to construct the tramline. The output from that is being further expanded and developed to account for our overall procurement strategy. Reassurance can be taken from that fact that the rates of diversion and construction that we employed to generate our overall programme take

account of the rates that have been employed in other schemes in the UK. We believe that the overall programme that we have laid before the committee is robust.

Mr Stone: I return to revenue. If there is any reduction in revenue and you do not meet your costs, you will be in trouble. Three specific areas arose from my questioning of Lothian Buses plc last week on quality contracts. Lothian Buses seemed bullish about the fact that other operators would not be swooping in.

You have made one or two assumptions in the financial plan. First, I ask you to reflect on why you expect a somewhat higher revenue per tram kilometre—£5.07 in 2011—than that which is currently achieved by other similar projects in the United Kingdom. I have figures here of £1.63 to £4.65. Secondly, where are you with getting the number of competing buses down from 49 to 27 an hour? How confident are you that that can be done?

Finally, is the project really doable? We are talking about a split of passenger numbers between 27 buses and eight trams. I cannot quite get my head round how the system will work with eight trams an hour.

Les Buckman: The revenue per tram kilometre is indeed more than the revenue of existing systems, although not a great deal more. Based on the other revenue indicators that we have, it is within the range of existing systems—there is one example where the amount is higher. There are issues about the figures being a forecast for 2011, whereas the revenue figures for existing systems are current. There will come a point when the revenue will grow—

Mr Stone: It will inflate itself by 2011 to achieve the sort of figure that has been quoted.

Les Buckman: Yes. I did not catch your third question.

Mr Stone: There is a lot of competition along Leith Walk, so will you explain the split of passengers between the eight trams and 27 buses? I am particularly interested in the 27 buses. Lothian Buses said, "Oh, we can do it; we won't need quality contracts, everything will be fine." Yet, in my mind's eye, I can see people buying an old bus, swooping in and offering competition on Leith Walk, which will have been freed up. How do we know that that will not happen?

Les Buckman: Currently, 49 buses an hour run on Leith Walk in the morning peak. If we put on eight trams an hour, each tram will have approximately three times the capacity of a bus. So, we will withdraw or cut back some of the bus routes and restructure them to pull back down the

available capacity on Leith Walk. The panel has said that the scheme will endeavour to put in place an integrated network with Lothian Buses whereby the bus network in the line one area will be adjusted to reflect the presence of that line, although perhaps not to duplicate it completely.

You suggested that Joe Bloggs might buy a 20-year-old bus to compete with the tram. Two or three years ago, there was a bus war between FirstGroup and Lothian Buses that went on for a year or so, but in the end, First could not sustain its position and ended up withdrawing. Our feeling is that although there is a clear risk that another operator might try to compete and plug the gap if we take off X buses from Leith Walk, it is a relatively small and remote risk.

Phil Gallie: This might not be a question for Mr Buckman alone, but he has just suggested that the forecast cost and revenue that will be earned per tram kilometre is an inflated figure and an estimate for what the earnings might be four or five years from now. Will someone on the panel advise me whether the costs that have been identified in the financial plan are based on current-day valuations or on inflated valuations?

Graeme Bisset: The reference was in the context of tram revenues in 2011 as compared with comparable systems today, which is a slightly different matter. However, to answer the bigger question, the revenues, costs and so on that we have been looking at are either all consistently based on 2003 prices and are thus comparable, or the numbers have been indexed in a different set of revenues. However, we have not mixed or compared indexed revenues and fixed-price costs, if that was your concern.

Phil Gallie: Thank you, I wanted that clarification.

Mr Stone: To be absolutely clear, are you giving us a cast-iron guarantee that all the numbers that you are looking at for 2011 are inflated figures to predict costs, expenditure and income, and that the playing field is entirely level in that context?

Graeme Bissett: I will be corrected if I am wrong, but the revenue figure that we have referred to reflects 2003 prices. The underlying driver is patronage. The point that was made was that the patronage projection for 2011 is still in the ramp-up period, whereas we are comparing the patronage with other UK systems, which are more mature. Therefore, one would expect further relative growth in the Edinburgh number. We are not talking about a price issue—I think it was to do with patronage volumes.

The Convener: I will wrap things up at this point, gentlemen. We have some remaining questions, and it is our intention to hold a wrap-up session next week. I know that other questions will

flow—in addition to the remaining questions from today—once we have studied the *Official Report* of the evidence that we have taken. I am conscious that you kindly offered to provide us with information in writing. I will be awful and ask whether that can be done by Thursday. It would be enormously helpful to have that detail to examine before we call you back next week. If it will be difficult to provide it by Thursday, I will leave the negotiation behind the scenes with the clerks; however, we are keen to have as much as you can give us by Thursday of this week, if possible.

On behalf of the committee, I thank Les Buckman, Mark Bourke, Graeme Bissett and John Watt, who got off terribly lightly today.

John Watt: Thank you.

The Convener: I am sure that we will find something for you to answer next week, so do not take today as an indication of things to come.

12:27

Meeting closed.

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