



**Edinburgh Tram**

**Progress Report**

**November 2005**

**(Supplement to Progress Report  
dated September 2005)**

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## 1. SUMMARY

- 1.1 During 2005, extensive analysis has been undertaken in relation to the scope and funding for Lines 1 and 2. That work was summarised in the Edinburgh Tram Progress Report dated September 2005. This paper serves as a supplement to that report and details the current status of funding for the project and explains how it is anticipated the position will now develop.
- 1.2 What follows in this paper is consistent with the process of confirming scope and funding between now and financial close in June 2007 which was detailed in the September paper.
- 1.3 Section 2 describes the factors which will determine the final level of financial contribution to the capital costs of the project which CEC will be able to offer. This decision will revolve around an appraisal of the tram related income streams which will fall to CEC in the future, principally surpluses from operations, income from land and development and advertising related income. CEC has to assess considerable risks in determining how much of a contribution it can make now against these future income streams even if the development and procurement process provides for rigorous management of such risks as the project progresses. As a benchmark CEC is considering an inflated contribution of **£45m** towards the initial capital costs subject to further analysis and discussion of risks in the period up to the final funding and scope decision.
- 1.4 Section 3 examines the nature of the grant funding from the SE and explains why indexation of the grant should represent an acceptable proposition. It further explains the circumstances in which the SE is considering enhancing the nominal value of the grant in response to an improved economic case rather than just responding to the impacts of inflation. If the SE grant of £375m were fully indexed at the same rate of inflation imputed into the capital cost estimates it would amount to some **£490m**. ~~SE is also bearing. There are also~~ risks in relation to the capital costs and again the development and procurement process being followed provides for effective mitigation of those risks.
- [Drafting comment – the Scottish Executive has not given any commitment to bearing a share of construction cost risks except to the extent that those risks fall below our funding cap of £375m (or its index-linked equivalent).]
- 1.5 Section 4 sets out the current expectations with regard to total available funding and costs. Consideration is given to the phasing options which will be considered. The sum of the assumed CEC and SE funding above is **£535m**. This is highly unlikely to deliver the whole of Line 1 and Line 2 in a single phase which would cost **£634m**. On this basis it may prove possible to construct the entire network excluding Newbridge as a first phase at a cost of **£575m** subject to some further enhancement to the funding package available and effective cost and risk management reducing the level of initial tenders received for the infrastructure and vehicle contracts. If the principles of Optimism Bias were to be applied in making a funding decision now it is almost certain further phasing of the construction would need to take place.
- 1.6 The development and procurement strategy being followed provides the flexibility to deliver a significant and sustainable first phase should the total funding package be in the order of magnitude outlined above. This would always be subject to the demonstration of economic viability of any such first phase and the various configuration options are being fully tested over the coming year. Where elements of Lines 1 or 2 are deferred to future phases, it would remain CEC's intention to complete the construction of the entire network subject to fulfilling the overriding objective that the tram combined with bus operations under TEL, presents a high

probability of delivering revenues sufficient to cover operating and maintenance costs and represents the best value for money public transport solution for Edinburgh.

- 1.7 Although it may be important to make a short term decision with regard to the assumed first phase of Lines 1 and 2 to be constructed, and some certainty in this regard would be of great benefit to the execution of tie's procurement strategy, it remains sensible that the final decision should be taken in the period up to financial close in late 2006 / early 2007 at which time the decision will be better informed by:
- Firm tender prices for the vehicles and infrastructure contracts
  - Further development of operating parameters in conjunction with system design
  - Further development of patronage and revenue projections for tram and the integrated tram and bus network which reflect the most up to date modelling available
  - Integrated transport modelling as between Tram, Lothian Buses and EARL (also recognising the interfaces with other operators)
- 1.8 Finally, the veracity of the cost estimate for the project is crucially dependent on 1) the continued effectiveness of cost control through the project governance process ; 2) the continued execution of tie's procurement strategy to mitigate risks ; and 3) adherence to the programme to mitigate further inflationary increases. This means that in order to avoid increases in costs, approvals and funding must-would have to be granted on time to allow the continued development of the project and the issue of tenders for the infrastructure and vehicle contracts which will deliver the desired level of certainty with regard to costs in late 2006. By this means, costs will be kept within present estimates and will also carry low risk of escalation after contractual commitment is finally made in mid-2007.

## **2. CEC CONTRIBUTION**

2.1 CEC will make a contribution to the capital costs of the project structured in a manner which achieves acceptable risk management. However CEC must balance its desire to support the project with its fiduciary responsibility to manage its affairs prudently.

2.2 CEC does not have the financial capacity to contribute to capital costs beyond the level of risk-sharing which it can bear and more specifically considers it can only contribute such amounts as it can reasonably expect to fund from future tram related income streams and receipts (i.e. not from general funds or from Council Tax). The anticipated sources of such receipts were reported during the preliminary stage and are principally as follows:

2.2.1 Surpluses from tram operations – The financial projections for the tram reflect that it will generate sufficient farebox revenues to cover operating costs and lifecycle (heavy maintenance) costs and provide a surplus over the 30 year planning horizon. However, by their nature the patronage projections underpinning these revenues are subject to uncertainty and CEC will retain the risks associated with these revenues. CEC's risks are principally mitigated by:

- The early involvement of an experienced operator (Transdev), Lothian Buses and the considerable experience in the commercial development and operation of Tram systems assembled by **tie** and its advisors.
- The financial risk-sharing mechanism built into the proposed arrangements between CEC and Transdev
- The planned integration of the tram and bus networks under Transport Edinburgh Limited (TEL) in a manner which maximises revenues and operating efficiencies between both modes of transport.
- Control over public transport policy in the City of Edinburgh including fares policy for the tram in the context of an integrated tram and bus network.
- The failsafe procurement approach under which, in the event of an insurmountable affordability gap, that part of the network most likely to be financially sustainable in conjunction with the bus network will be constructed as a first phase.

The establishment of the integrated bus and tram network is now gathering pace with the establishment of TEL and population of its board and governance structures. The further development of TEL and its business plan will be a continuous process up to financial close in mid 2007 and thereafter up to the commencement of tram operations and the implementation of an integrated tram and bus network in Edinburgh.

One of the most tangible workstreams now commencing is the development of the current patronage and revenue projections for tram into a more explicit patronage and revenue projection for TEL. The detailed modelling work is being carried out under the Joint Revenue Committee contract which commenced in September 2005 and is being overseen by a group of all the major stakeholders in the project including TEL and Lothian Buses. The output from this work, programmed for the summer of 2006, will inform the final decisions on scope, funding, risk and affordability for the tram project by CEC and SE in the autumn of 2006.

2.2.2 S.75 contributions of land - The negotiation by CEC planning officials of land contributions from land owners along the tram routes has continued apace during the Parliamentary process. These agreements will not however be finally concluded until such time as the project has received approval to proceed and the scope is certain. These agreements must also remain subject to normal commercial confidentiality. The estimated value of such contributions, including CEC's own land holdings which

form part of the tram routes, is £13m in 2003 prices and £17m in inflated terms and is a direct offset against the estimated capital costs which are inclusive of the value of these land holdings.

- 2.2.3 CEC owned development sites - The assessment of the potential to generate profits from CEC owned sites adjacent to the Tram lines has continued and tie is progressing discussions with EDI, a Council owned property development company, to confirm the potential of these sites and put in place the commercial arrangements by which that value can be realised. The total profit such sites may yield for tram funding is estimated to be up to £5m in 2003 prices. The inflated value of the profit will depend upon the anticipated timing of development and this cannot yet be determined with any degree of certainty. The transfer of these sites to tie/EDI will not take place until the scope of the tram project is reasonably certain and this stream of work will continue up to the commencement of tram operations and beyond.
- 2.2.4 Developer contributions – In 2004, CEC implemented a formula based system of calculating contributions from developers in respect of new development adjacent to and therefore benefiting from the tram routes. To date the application of this policy has yielded agreements which will secure several million pounds in contributions when the tram network is completed. The policy also provided for specific negotiation of contributions in respect of large-scale developments such as those contemplated in the north of Edinburgh at Granton and Leith. Negotiations with the landowners in question have progressed, but again have not yet been concluded and must remain commercially confidential. It is conservatively estimated that developers contributions will average some £1m per annum in 2003 prices over the planning horizon for the tram network but this is naturally subject to considerable uncertainty. tie and CEC are now embarking on a further development of these estimates and the possible timing of such contributions in the context of the Local Development Plan.
- 2.2.4 Advertising income – Further professional advice received by tie has confirmed that the previous estimate of between £0.3m and £0.7m in 2003 prices is more than reasonable when benchmarked against advertising revenues generated from other tram networks (adjusting for scale). It is also probable that the potential for advertising revenue will in due course be addressed for the integrated business of tram and buses operating under TEL. The detailed commercial negotiation of this income stream can only take place between much closer to the commencement of tram operations in 2010.
- 2.3 There are therefore potential sources of income which CEC might utilise to fund a contribution to the costs of the tram. However, there are risks and uncertainties to be measured when assessing the level of contribution that might be made to the initial capital costs. For the purposes of discussion with SE the total inflated (i.e. indexed) value of CEC's contribution to the initial capital costs of project has been benchmarked at **£45m** (including the value of S75 land contributions). It must be stressed that this does not represent an agreed sum and is subject to change as the business case develops over the next year and the outcome of the JRC modelling and initial tender prices for the main infrastructure and vehicle contracts become available. It is also fundamentally dependent upon the funding from SE being of a level sufficient, in the view of CEC, to construct a viable and extensive tram network as a first phase.
- 2.4 There exist a number of options to structure the final agreed funding support by CEC in such a way which helps balance its desire to support the project with its fiduciary responsibility to manage its affairs prudently. These arrangements could take the form of a financial safety net whereby SE provides either temporary or permanent underwriting of some of the risks CEC is bearing in relation to future operations and

other income. Detail consideration of such arrangements between CEC and SE is yet to take place.



### 3. SE GRANT

3.1 The current committed grant from SE toward the tram project is £375m subject to the delivery of a final business case which demonstrates value for money both in terms of net economic benefits and financial viability of the network. This is in addition to the funding the Scottish Executive has provided for the Private Bills for the tram system.

3.2 The original City of Edinburgh Council Preliminary Business Case for the Integrated Transport Initiative dated 30 September 2002 clearly anticipated that the £375m which was in 2002 prices would be indexed.

It is a fact that whilst the costs of the project have been subject to normal inflation, there has been, as yet, no commitment by the SE to index the grant to reflect the impact of inflation. SE are now considering the question of indexing and there is a reasonable ~~expectation prospect~~ that, subject to the same value for money pre-requisites, it will be constructively addressed.

3.3 There are a number of additional new dimensions to the design of the Tram network compared to the case put forward in the 2002 PBC. These include:

- The capital costs of the network were extensively re-evaluated in 2003, reflecting the agreed routing following extensive public consultation in mid-2003 and more detailed cost analysis than was available to support the 2002 PBC. This produced a robust basis for the submission of the Bills in December 2003. Benchmarking against existing and planned schemes in England coupled with further review of capital costs by tie's own professionals, its advisers and by the consulting firm Arup on behalf of the Parliamentary committees have re-confirmed the capital cost estimates as sound.
- In Spring 2003, the Treasury implemented new guidelines for capital cost estimation including the concept of Optimism Bias as a means of ensuring early stage cost estimates were sound. Had this been applied to the 2002 PBC estimates, the capital cost presented to the Executive would have been some £150m higher. It is not possible to be definitive about what effect the application of Optimism Bias in the 2002 PBC may have had on anticipated grant support. It does however seem reasonable to assume that it would have been taken into account in determining the committed amount of grant.
- The critical importance of developing a fully integrated transport network is now much better understood. Successive reports have highlighted this as a key driver of light rail scheme benefits and financial stability. Edinburgh's approach has been well-documented, but it is important to recognise that the work involved in designing such a system is substantial and has only recently commenced at a detailed level. The City of Edinburgh Council's 91% ownership of the shares of Lothian Buses requires that the financial effect of the tram on Lothian Buses be carefully evaluated. This requires a 5-10 year view of bus service patterns, capital funding requirements and fare levels. These features were not well-developed when the 2002 PBC financial model was compiled, but are now receiving detailed attention. In addition, tie can only work within present legislation, which requires that we achieve a very delicate balance between integration activity and compliance with competition legislation. The design of an integrated service pattern, with all the benefits it will bring, will undoubtedly result in a different (and possibly materially different) pattern of tram revenues and operating costs. The outcome will however be considerably more reliable as a basis for financial projections. In addition, secondary legislation to bring the tram system into the Scottish National Concessionary Travel scheme will be required.

- The procurement structure already partly implemented has all the features of current best practice, providing further assurance to the robustness of the plans. In particular, the early involvement of Transdev, the phased approach to design, the separation of revenue risk from capital cost tenders, the separation of utility work and the dual procurement approach to system construction and vehicle acquisition will all contribute to risk mitigation, competitive tendering and control of cost. This approach had been developed to only an outline level in late 2002.
- **tie** has had the benefit of input from the prospective operator, Transdev, in addressing these complex matters since mid-2004.
- Finally, the Tram Bills have both received parliamentary stage 1 approval, but in both cases the adequacy of funding has been flagged as requiring further examination.

3.4 Even with a substantial contribution from CEC, SE will still be contributing most of the funding for the capital costs. ~~It is also anticipated that SE will bear risks associated with those capital costs, including, prima facie, construction cost escalation.~~ The SE's risks of capital cost escalation in this regard are mitigated by the following factors:

- The procurement strategy developed by **tie** to deliver a value for money Tram network taking full cognisance of the lessons learned from the procurement of other public transport projects.
- The process by which the Executive will approve progress of the project at various stages only after being satisfied by **tie** and CEC as to the continuing adequacy of funding headroom during the progress of design, phasing definition and receipt of tenders.
- **The continuing** right to satisfaction that the extent of the tram network being delivered represents good value for money with respect to the level of investment.
- The rigorous regime of cost control being implemented by **tie** with its advisors and CEC to manage the design and construction process.

3.5 The progress since the 2002 PBC was prepared is considerable. However, major new dimensions have been identified and the financial structure supporting the tram project must accommodate these factors.

3.6 If the SE grant of £375m were to be indexed at 6%, the same rate of inflation imputed into the capital cost estimates for the project, it would amount to some **£490m**. Again it must be stressed that this does not represent an agreed sum and is subject to change as the business case develops over the next year and the outcome of the JRC modelling and initial tender prices for the main infrastructure and vehicle contracts become available.

#### **4. CURRENT POSITION OF FUNDING v COSTS**

- 4.1 The process of reaching closure on the final funding package for the tram and the level of contingency and risk mitigation planning being implemented is detailed in this paper and in the preceding Progress Report in September 2005. For the purposes of illustration in this analysis it is assumed that the final funding package will **£535m** comprising an indexed grant of **c.£490m** from the SE plus the benchmark contribution of **£45m** from the CEC.
- 4.2 **tie's** capital cost estimates are inclusive of a specified contingency of c10% and these estimates are the control budgets for management of the project. For the purposes of informing affordability considerations only, as explained in the September 2005 progress report, under HM Treasury guidelines consideration must be given to the impact of Optimism Bias which could currently add up to 14% of the base cost estimate to **tie's** capital cost estimate.
- 4.3 The background or implications of Optimism Bias are not in any way disregarded here, but to be consistent with the historical development of funding and cost estimates on the project it is assumed for the purposes of this analysis that the tender prices received next autumn are comparable with **tie's** control budgets. The conditions precedent for this eventuality include timely receipt of approvals to proceed with the project, the execution of **tie's** procurement strategy in accordance with programme and the effectiveness of the project's governance procedures in controlling the scope of the project. Note that at the point of financial close the calculated level of Optimism Bias might be expected to be contained within the level of the specified contingency included in **tie's** control budgets.
- 4.3 **tie's** control budget to complete the full Line 1 and Line 2 network to Newbridge is **£634m** and therefore is unlikely to be affordable as a first phase from funding which is reasonably visible even if the SE grant is properly indexed.
- 4.4 If the Newbridge section of Line 2 were deferred until further funding became available then the capital cost estimate for the first phase would be **£575m**. This is closer to the assumed funding sources and it is widely recognised that until development in the Newbridge area leads to increased patronage, the construction of the Newbridge section of the network will lower the probability of the network as a whole being financial viable. Affordability of this network as a first phase would require the identification of a further **£40m** of visible funding prior to financial close.
- 4.5 Beyond the deferral of the Newbridge section it is not possible for **tie** to be definitive at this stage as to which section(s) might be deferred should this scenario arise. However the factors to be considered include :
- The net economic benefits in relation to a series of alternative phasing options will be developed fully whilst progressing the procurement strategy.
  - The financial viability of each of the network options being considered both in isolation and, very importantly, in the context of combined tram and bus operations under TEL.
  - The optimisation of the public transport network in Edinburgh as a whole.
  - CEC's wider aspirations for factors such as development and social inclusion.

A final important element of capital cost control is the degree of certainty of execution which underpins the tendering process in 2006. Tenderers can be anticipated to add risk premia to their pricing in the absence of such reasonable certainty. Accordingly, **tie**, TEL, CEC and the SE will be working closely together in the months ahead to minimise the extent of scope uncertainty within the funding which the principal funders are prepared to put forward. A final conclusion will not be reached until

Financial Close in mid-2007 but the tender process will be a key part of the overall approach to achieving an extensive but affordable network.