Edinburgh Tram

Progress Report

September 2005

INDEX

1. SUMMARY

1.1 This paper provides an update as requested by the Parliamentary committee in their consideration of the Bills for Line 1 and Line 2 in respect of the overall estimate of expenses and funding required and the funding gap.

1.2 The Parliamentary scrutiny of the Line 1 and Line 2 proposals has progressed significantly since the Bills were introduced. Earlier in 2005 the Committees reported progress on scrutiny of the Bills to the full Parliament. Parliament approved the principle of the two Bills, and agreed that the Bill should proceed to the consideration stage where the Committee would consider the details of the proposals.

1.3 It is anticipated that the contracts for the infrastructure and tram vehicles, representing the majority of capital expenditure on Lines 1 and 2, will be structured as a number of phased options. This approach facilitates the final determination by the City of Edinburgh Council (CEC) and the Scottish Executive (SE) of what sections of both lines will be constructed first, and therefore the quantum of funding required. These decisions will be taken in late 2006 with the knowledge of initial tender prices received from the market. Tenders for the infrastructure and tram vehicles contracts are due to be issued following Royal Assent and submission of the Outline Business Case (OBC). Initial tender prices will be received in August 2006 and the contracts will be awarded at the end of June 2007.

1.4 In advance of the award of the main contracts, **tie** will concentrate on other activities which are focussed on de-risking the project and thereby achieving the best prices possible for the tram infrastructure and vehicles. These de-risking activities are principally system design, utility diversions and the related progression of planning and other approvals along the higher risk sections of Lines 1 and 2 which will be difficult to construct. The design of the network has recently commenced and work on utility diversions is programmed to commence following Royal Assent.

1.5 The estimates of capital costs for Line 1 and Line 2 **have not changed** since the Bills were introduced. In common with the presentation of costs on other capital projects these cost estimates were base dated to a particular point in time, in this case the second quarter of 2003, and did not include inflation. The table at section 7.1 below presents these cost estimates with a conservative estimate of the cost of inflation.

1.6 In addition to the SE grant of £375m, it is anticipated that CEC will make a contribution to the capital costs of the project, structured in a manner which does not leave the Council exposed to undue financial risk. However, CEC and SE will not make a final determination on the funding package until late 2006 following receipt of initial tenders and further refinement of transport modelling.

1.7 At that point the extent of the construction of Lines 1 and 2 which will be affordable as a first phase will be dependent, inter alia, upon initial tender prices received for the Infrastructure and Vehicle contracts, further confirmation of previous transport modelling and indexing of the SE grant to match the costs of inflation or provide some other form of financial underwriting. Building the entirety of Lines 1 and 2 in one phase is still the most desirable outcome if the final determination on funding by SE and CEC is favourable.

1.8 The underlying driver is to ensure that the risk of a funding shortfall is eliminated whilst maintaining the objective of constructing all of Line 1 and Line 2 out to the airport and, ultimately, to Newbridge when the sources of funding become available, including but not limited to profits from property development related to Lines 1 and 2 and tram operating profits which crystallise in the period beyond the commencement of tram operations.

1.9 An effective Project Governance regime has been implemented to manage the design and construction phases of the tram project. This regime includes the establishment of the Tram Project Board comprising representatives of **tie**, CEC, SE, Transport Edinburgh Limited (TEL) with Partnerships UK and Transdev (both in attendance) which considers all critical matters in relation to the scope, cost, programme and Business Case of the tram project. The members of the Tram Project Board act as champions of the project within their respective organisations for the progression of necessary permissions and approvals. The Tram Project Board operates under delegated authority from the Board of **tie** Limited and in turn provides the Tram Project Director with delegated authority to deliver the project. The structure is intended to achieve clear responsibility and accountability at all levels within the project.

1.10 In summary, this paper sets out the direction of the tram project through to financial close in a manner which accommodates the desire of both CEC and SE to defer final decisions on funding requirements until the initial tender prices for the infrastructure and vehicles contracts have been received and there is further refinement of the work completed with respect to optimising both:

- Service pattern - development of integration with buses and interaction and with other modes of transport; and
- Operational viability – further development of passenger and revenue projections using a new Integrated Transport Model (including both buses and EARL) which will become available in the Summer of 2006 and which will use the most up to date data for these projections.

1.11 The programme to meet an operational date for the tram by the end of 2009 is a challenging one which will be constantly under review in detail up to the date of award of the infrastructure and vehicle contracts in light of the actual phasing plan adopted, the construction methods developed by **tie** and its contractors and the practicalities of limited sections of the Tram being operational prior to completion of both Lines 1 and 2. Dependant upon the above determination, the scheduled opening date for the full system will in all likelihood be into 2010.

2. PARLIAMENTARY SCRUTINY AND ROYAL ASSENT

2.1 On 11 December 2003, CEC formally approved the promotion of two Private Bills seeking powers to build and operate Tram Lines 1 and 2. The Bills and supporting documents were submitted to the Scottish Parliament before the end of that year and formally introduced on 29 January 2004.

2.2 The Parliamentary scrutiny of the Line 1 and Line 2 proposals has progressed significantly with the Line 1 and Line 2 Bill's being considered by separate Parliamentary Committees. Earlier in 2005 the Committees reported progress on their scrutiny of the Bills to the full Parliament. Parliament approved the principle of the Bills and agreed that the Bills should proceed to the consideration stage where the Committees would consider the details of the proposals.

2.3 The Committees identified a number of important issues to which it wished to return prior to the final stage. These issues included;

- The position on the overall estimate of expenses and funding required.
- What additional funding has been secured by the promoter to reduce the risk of a future potential funding gap for the project.

2.4 Tram Line 2's Committee added;

- The position as to the likelihood of the promoter having to adopt a phased construction process for the completion of the line, with particular reference to the Airport to Newbridge section of the line.

2.5 Commitments were given that the information would be provided to the Committees to "inform any Final Stage debate". This was explicitly clarified as "not earlier than September 2005".

2.6 It was made clear that "the Outline Business Case, which will be presented to the Scottish Executive during the Spring, will provide a snapshot of the position at that time although it is worth noting that the costs will continue to be refined following submission of the Outline Business Case".

3. PHASING AND RISK ALLOCATION

3.1 Summary of phased procurement approach

3.1.1 **tie** has carried out a great deal of work to ensure that the current capital cost estimates are the most accurate available and benchmark favourably against outturn costs on completed tram projects. However on a project of the scale and complexity of the tram project there is still a degree of uncertainty (including that relating to construction market prices generally) which will exist up to and beyond the point where tender prices are known. It is therefore important to achieve as much certainty as possible on the likely price for the different elements of the tram system before awarding the major contracts for the tram infrastructure and vehicles.

3.1.2 **tie** is implementing a phased approach which would be applied to the procurement of Lines 1 and 2. The aim of the phased approach is to:

- Ensure maximum certainty and clarity around the likely costs of sections of Lines 1 and 2.
- Allow for the option of retaining the same contractors for each phase to reduce cost and risk.
- Ensure that each completed phase is completely sustainable in financial and operating terms as a tram service in its own right.

3.1.3 The desirable consequence of the phased approach is that CEC and SE will take the final decisions about what sections of Lines 1 and 2 to build, and in which order, after the initial tender prices have been received for the infrastructure and vehicles contracts. However it remains the case that building the entirety of Lines 1 and 2 in one phase is still the most desirable outcome if the final determination on funding by SE and CEC is favourable.

3.1.4 **tie**'s procurement strategy is entirely compatible with a phased approach because:

- Both the vehicle and infrastructure contracts will be tendered as a series of 'options' such that transparent pricing will be available for each significant section of each Line. This will enable the selection of the optimum phasing and the confirmation of the value for money that each incremental section of each Line represents in the context of net revenues as well as meeting wider social and economic objectives.
- The scope of design, utility diversions and other implementation activities programmed for the period up to award of the main infrastructure and vehicle contracts focuses on de-risking the procurement.

3.2 Allocation of Financial Risk between CEC and the SE

3.2.1 It is anticipated that CEC will make a contribution to the capital expenditure on Lines 1 and 2. However, even with a contribution from CEC, SE will still be contributing most of the funding for the capital costs and will expect a high degree of confidence that the project will be delivered within the constraints of approved funding. SE's risks in this regard are principally mitigated by the following factors:

- **tie's** procurement strategy which takes full cognisance of the lessons learned from the procurement of other public transport projects.
- The phased approach to implementing the project as described above.
- The process by which SE will approve progress of the project at various stages only after being satisfied by **tie** and CEC as to the continuing adequacy of available funding by comparison to the estimated cost of Lines 1 and 2 which is to be constructed. This assessment is continuous throughout design, tendering and construction.
- SE's right to be satisfied prior to award of the main infrastructure and vehicle contracts that the extent of Lines 1 and 2 to be constructed represents good value for money with respect to not only financial viability but also delivery of other benefits including integration with the rest of the public transport network, redevelopment and social inclusion aspirations.
- The rigorous regime of cost control being implemented by **tie** with its advisors and CEC to manage the design and construction process and therefore prevent unnecessary cost increases.

3.2.2 CEC will bear substantially all the risk that farebox revenues and other income (such as profits from development and advertising income) are lower than expected and/or are not sufficient to cover operating costs. The position of risk underpinning lifecycle costs (i.e. the cost of long term heavy maintenance) will require further dialogue in the context of the contractual and financing structure. CEC's risks are principally mitigated by:

- The phased approach under which the elements of the Lines most likely to be economically sustainable will be constructed first.
- 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 proposed integration of the tram and bus networks under Transport Edinburgh Limited (see 5 below) 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.

4. PROCUREMENT

4.1 Development of Procurement Strategy

4.1.1 In developing its procurement strategy, **tie** has had to deal with certain key issues that make Edinburgh's context different from that of other promoters of light rail schemes including the effects of the project running through an historic city centre with World Heritage Status, and consequentially, significant constraints in terms of aesthetics, environmental impact and restrictions on access to land and property along the proposed route. The objectives of the procurement strategy are to achieve:

- Best value for money for the public
- Timely delivery of the system
- 'Win/Win' solutions for relationships with the private sector
- Meaningful integration of light rail and bus services
- Flexibility for future expansion of both Lines/phasing of delivery

4.1.2 **tie** is implementing a procurement strategy which learns the lessons from past tram procurement exercises and recent investigations by NAO, Audit Scotland and HM Treasury and deals with issues specific to Edinburgh. Overall the procurement strategy is well designed to serve the objectives of the project and is suitable for market testing which will take place in the Autumn of 2005. **tie**'s intention is to reflect on the feedback received from the proposed market consultation as an aid to finalising the procurement strategy in the light of the messages received.

4.1.3 In addition, **tie** will consider the views of key stakeholders, including CEC and SE and on the basis of feedback a specific strategy on the split of funding between grant and private finance (and consequential risk allocation) will be finalised.

4.2 Key Features of the Procurement Strategy

4.2.1 **Early operator involvement** - A contract was signed with Transdev to undertake this role in June 2004, and they are co-located in **tie**'s office working on a consultancy basis. This gives **tie** access to the operator's knowledge and experience during the parliamentary approval, business case, planning, bus/tram integration, design, and commissioning phases to ensure that the system will be capable of being operated effectively.

4.2.2 **Separation of operations and systems delivery** - When the project moves into the operations phase, farebox and operating cost risks will largely fall to the public sector via CEC. The cost in the form of increased tender prices submitted by the private sector to assume these risks have been a major contributor to affordability problems on other schemes in the UK.

4.2.3 **Early involvement of designer** - This allows **tie** to advance design work for the higher risk sections of Lines 1 and 2 with respect to diversion of utilities, progression of planning consents and the interface with other modes of transport including Network Rail, buses and other road users. **tie** awarded the System Design Services (SDS) contract in September 2005 (following approval of funding by SE). The SDS contractor will focus detailed design activities on reducing the planning and estimating risks that bidders for the infrastructure contract are exposed to.

4.2.4 This aim of this work is to eliminate these risks from the consideration of the tender prices to be submitted for the infrastructure and vehicle contracts. It will also facilitate advanced works on utility diversions, another area where both programme and costs would present considerable risks and therefore tender prices to be paid to the private sector but which **tie** and CEC can manage without such risk transfer. The strategy calls for novation of the design contract such that SDS becomes a subcontract to the main infrastructure contract when the latter is awarded with all risks in relation to design work completed pre-novation passing to the infrastructure contractor.

4.2.5 **tie** will monitor the quality and cost-effectiveness of solutions being prepared by the design contractor (SDS) with the assistance of the Technical Support Services (TSS) contractor. The TSS contract was awarded in July 2005 and together with Transdev provides tie's own resources with significant and complementary experience of similar schemes. This resource base will, inter-alia, monitor the design process to ensure there is no tendency towards solutions which do not provide the overall best value for money. **tie** will track the estimated cost of the system throughout the design period, so that potential cost overruns can be identified quickly and mitigating actions taken while there is still scope to change the solution.

4.2.6 **Establishment of Joint Revenue Committee** - The Joint Revenue Committee (JRC) will develop a comprehensive public transport model (Integrated Transport Model) to support the development of Lines 1 and 2 and will consider, inter-alia, the impact of specific system design features and service and frequency changes on forecasts of passenger numbers and revenues. The Integrated Transport Model will allow further analysis of the effect of the integration of the tram with other public transport modes including buses and heavy rail. **tie** awarded the JRC contract at the end of August 2005 (following approval of funding by SE). The output from the Integrated Transport Model will be available to support the ongoing development and confirmation of the tram Business Case from mid 2006.

4.2.7 **Utilities undertaken as advanced works** - A significant benefit arising from undertaking design early is that **tie** can procure and implement necessary utility diversions early and before award of the main infrastructure and vehicle contracts. The risk of delays and/or disjointed sequencing of work introduced by dealing with a third party (the utility companies) interface has led to significantly increased tender prices where this risk has been passed to the private sector on other projects. By procuring utility diversions directly **tie** will minimise disruption and maximise construction productivity. **tie** will procure the major identified utility diversions through a single framework contract with a contractor which has been approved by all the affected utilities.

4.2.8 **tie** and CEC will use their powers under the Act following Royal Assent and as the roads authority to negotiate with the utility companies allowing works to be carried out on all of the utilities assets at a single site under the single framework contract. Many of the most complex issues regarding utilities are already being progressed through negotiations with the utility companies with whom **tie** has agreed heads of terms for utilities diversion works. These negotiations have resulted in a number of innovative solutions for utility issues, highlighting the benefits of early engagement with the utilities companies. It is anticipated the single framework contract for utilities will be awarded and work begin immediately following Royal Assent or in April 2005 whichever is the later.

4.2.9 **Separate selection of infrastructure and vehicle providers** - **tie**'s approach of having separate competitions for infrastructure and vehicles means that it will be able to select its preferred option for each of the vehicles and the infrastructure. There are a relatively small number of vehicle providers in the light rail market, and asking them to partner with infrastructure providers would restrict the range of choice available to **tie**. It is also anticipated that separate procurement of these two key elements of Lines 1 and 2 will increase competition for the infrastructure contract because the relatively small number of vehicle providers would otherwise limit the number of integrated consortia that could bid. **tie**'s approach therefore allows it to select both its favoured rolling stock choice and its favoured infrastructure provider. As with the design contract it is **tie**'s intention to novate the vehicles contract such that it becomes a subcontract to the infrastructure contract with all interface risks passing to the infrastructure contractor.

5. ESTABLISHMENT OF TRANSPORT EDINBURGH LIMITED (TEL)

5.1 A critical element of activity for **tie** and CEC is the progression of both further transport modelling (principally the Integrated Transport Model under the JRC contract) and the plan to achieve operational and financial integration of the tram and bus networks. This work is critical to give all stakeholders further comfort regarding the robustness of the Business Case for Lines 1 and 2 prior to both the issue of tenders for the main infrastructure and vehicles contracts proposed in April 2006 and the issue of the Final Business Case following receipt of tender prices for these contracts in late 2006. The Integrated Transport Model will permit clear assessment of the patronage and revenues on different configurations and phasing of the project and the implications for the combined passenger numbers and revenues of Lothian Buses and tram.

5.2 Effective integration of the tram with the bus network is key to ensuring stability and growth in passenger numbers as well as to delivery of wider social policy aspirations. Uniquely in the UK, **tie** and CEC have instigated a programme of early involvement of the tram operator (Transdev) and dominant bus operator (Lothian Buses) and will develop in due course a similar dialogue with other transport operators. Lothian Buses plc (LB) is owned by the Council (91%) and delivers approximately 80% of bus services in the city, with the balance primarily serviced by First Group. This market structure offers an exceptional opportunity to achieve effective integration, subject always to full compliance with competition law. **tie** and CEC have established a detailed process to maximise this opportunity for the benefit of customers.

5.3 A wholly-owned subsidiary of CEC – Transport Edinburgh Limited (TEL) - will oversee and drive progress with the development of the combined bus and tram business with the assistance of **tie** in terms of procurement and project management. It is intended that this structure will be fully implemented during the period between Royal Assent and the issue of the Final Business Case in late 2006. Thereafter TEL will drive the tram project in the period immediately prior to commissioning and during operations. This approach will also have the effect of reducing risk for CEC by maximising cost and revenue efficiencies between the tram and bus networks and managing the service patterns of both modes in the most effective way for customers.

5.4 The corporate and governance structure of TEL will be finalised prior to Royal Assent then fully implemented thereafter. It is envisaged that TEL will own both Lines 1 and 2 and LB and will in due course be the counterparty to both the operating agreement with Transdev and all other contracts in relation to the procurement of Lines 1 and 2. Upon implementation of this structure **tie** would become a provider of project management services to TEL.

5.5 Development of a first draft of a financial plan and model reflecting the combination of LB with Lines 1 and 2 will be completed prior to the issue of the Outline Business Case (OBC) in February 2006. However the plan and model will evolve and will only be complete and robust when it reflects the output from the Integrated Transport Model being produced by the JRC contractor in the autumn of 2006.

6. INTERRELATIONSHIP WITH EARL

6.1 The Integrated Transport Model described above will also allow tie to fully assess the interaction between tram and the proposed heavy rail link to Edinburgh Airport (EARL) in terms of patronage and therefore any consequential impact on the passenger and revenue forecasts in the tram Business Case. EARL would provide direct routing from the Airport to the national railway network. EARL would therefore provide links on a regional and national basis, whilst the tram would provide the local connections.

6.2 The airport market is an important part of Line 2 demand and EARL does have the potential to capture a significant proportion of passenger trips between the airport and the City Centre. Fare policy will be a key decider of the relative attractiveness for users. The business case for EARL is at a relatively early stage of development and the full implications for passenger numbers and revenues on Line 2 will need to be understood before the infrastructure and vehicle contracts are awarded. Line 2 and EARL can serve different market demands, Line 2 serving the local price sensitive and time insensitive market and EARL the National, price non-sensitive and time sensitive market.

6.3 In the meantime, the opportunity has been taken to utilise the transport model developed specifically for the EARL project to re-visit the relationship between EARL and Line 2. The EARL model represents an evolution of the modelling suite used for Line 2 and incorporates a number of enhancements over the Line 2 model. At the airport data regarding actual passenger traffic and staff trips collected by BAA have been incorporated to give a more accurate interpretation of travel patterns. In addition, the EARL model uses the most up to date projections for airport passenger growth as included in the Government's 2003 White Paper, "The Future of Air Transport" and which are consistent with the projections used by BAA in their Draft Outline Master Plan published in May 2005.

6.4 The EARL model also better reflects patronage from outside Edinburgh, representation of development proposals in West Lothian, modelling of rail fare patterns and an update of public transport service patterns to 2004.

6.5 The Line 2 model still provides a better representation of potential utilisation of the tram particularly in relation to trips within Edinburgh. The analysis has therefore brought the outputs from the two models together to produce the best estimate of the interaction between Tram Line 2 and EARL that is available at this time.

7. FUNDING AND BUSINESS CASE

7.1 Capital costs estimates

7.1.1 The estimates of capital costs for both Lines 1 and 2 were prepared by **tie**'s technical advisors in 2003. These estimates have not changed since the Bills were introduced. In common with the presentation of costs on other capital projects these cost estimates were base dated to a particular point in time, in this case the second quarter of 2003, and did not include inflation.

7.1.2 The table below presents these cost estimates both in 2003 prices and with tie's current estimate of the effect of inflation at an average of 6% per annum. The inflated cost estimate is the estimate of actual cash spend on the project. The uncertainty of the cost of inflation will be largely eliminated when the tenders for the main infrastructure works and tram vehicles are returned, the intention being to let these contracts on a fixed price basis.

tie and CEC have also begun the examination of a number of alternative options for a first phase of construction of Lines 1 and 2. For illustration, one of these alternative options is also presented in the table below and is discussed at section 7.3 below. It should be noted that this example of phasing is illustrative only.

£m	**Line 1**	**Line 2**	**Lines 1+2**	**Lines 1+2 less Newbridge**
	A	B	C	D
Total Base Cost in Q2 2003 Prices	219.3	253.2	440.0	399.2
Specified Contingency	23.7	25.3	44.0	39.9
Total Cost Estimate in Q2 2003 Prices	**243.0**	**278.5**	**484.0***	**439.1**
Estimated Inflation	75.3	86.3	150.0	136.1
Total Inflated Cost Estimate	**318.3**	**364.8**	**634.0**	**575.2**
Incremental Optimism Bias (Inflated)	40.2	46.4	80.7	73.2

* Line 1+2 costs do not total the costs of Line 1and Line 2 in aggregate due to the elimination of the costs of the common running section from the Line 2 costs and to minor additional costs in relation to the effective operation of the two lines as a network.

7.1.3 The Specified Contingency, which is approximately 10% of base costs, is that which **tie** and its advisors believe to be sufficient to deliver the project as described in terms of scope, quality and programme in the original submissions to Parliament in 2004.

7.1.4 Under HM Treasury guidelines the Scottish Executive must consider the impact of 'Optimism Bias' on required funding. This requirement has arisen from a historical trend of underestimating the cost of public works in the UK. Calculated in accordance with the HM Treasury guidelines optimism bias would be 24% on the Tram project and so the incremental optimism bias (ie in addition to **tie**'s specified contingency) is 14% of the base costs excluding specified contingency. **tie** considers that the extent to which this contingency proves to be necessary will be dependant upon the number and value of changes to both scope and programme which are proposed by the stakeholders in the project during design and construction. As part of the determination of the optimum phasing for the project, CEC and SE may determine that there should be visible funding in respect of all of part of this additional contingency.

7.2 Funding for capital costs

SE grant funding

7.2.1 The original Preliminary Business Case (PBC) for the Integrated Transport Initiative dated 30 September 2002 anticipated that the SE grant of **£375m** would be indexed to reflect the inflation of the capital cost estimates to the estimated out-turn cost of delivering the project. It is not possible to be definitive about what impact the explicit consideration of the effects of inflation on capital costs 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. **tie** anticipates SE will consider the issue of indexing of the grant in the autumn of 2006 at which time decisions with regard to the funding of the project will be informed by the output from the Integrated Transport Model being delivered under the JRC contract and initial tender prices received for the infrastructure and vehicle contracts. Release of the existing approved £375m will be subject to approval upon achievement of milestones as described under 7.5 below.

CEC contribution to capital expenditure

7.2.2 It has always been anticipated that CEC will make a contribution to the capital costs of the first phase of Lines 1 and 2. As with the SE grant the final quantum and nature of the CEC contribution will be confirmed and agreed in the latter part of 2006 following receipt of initial tender prices for the infrastructure and vehicle contracts and presented as part of the Final Business Case. The total CEC contribution will come from a number of sources including:

- Cash contributions to development - In a manner similar to the £1m development funding CEC has provided to the project for the year to 31 March 06.
- The value of land contributed to the project by CEC and under S75 agreements with developers and reasonably certain development contributions.
- Income from tram related development contributions and other property related activities which have reasonable visibility.
- Future CEC cash flows from the operation of Lines 1 and 2 – In substance this is likely to be limited borrowing or other financing arrangements against the forecast future operating surpluses from the tram system and contributions from development and other commercial activities related to the tram project.

What is affordable from SE and CEC funding?

7.2.3 Notwithstanding the fact that CEC and SE are working towards the final decisions regarding funding for the project in the autumn of 2006, the following conclusions can be drawn now:

- Either of Line 1 or Line 2 can be delivered in its entirety without indexing of SE grant
- Delivery of both Lines 1 and 2 in their entirety is unlikely in a first phase, even with indexing of the SE grant, without borrowing against future revenues

- There are a number of options to defer the construction of one of more elements of Lines 1 and 2 in a first phase. **For illustration,** an affordable first phase of construction on Lines 1 and 2 could defer construction of the Ingliston to Newbridge section of Line 2 - column D of the table above.

7.3 Factors influencing evaluation of phasing options

7.3.1 Successful delivery of both Lines 1 and 2 will only be achieved by seeking reasonable certainty on funding sources in the short term and designing the phases of construction such that there is headroom in available funding to accommodate changes in scope and costs of the project.

7.3.2 Over the period between now and delivery of the Final Business Case in November 2006, **tie** (with its advisors), CEC and SE will determine the order of any necessary phasing, with the objective of being able to construct over time the totality of Line 1 and Line 2 as and when the sources of funding become available. The sources are inclusive of but not limited to development related income and operating surpluses which crystallise in the period beyond the commencement of tram operations.

7.3.3 In evaluating the options available for phased construction of Lines 1 and 2, there is an overriding requirement that any completed phase of either Line should present a high probability of generating an operating surplus, thereby being financially successful.

7.4 Funding for future phases and extensions

7.4.1 The Business Case anticipates significant operating surpluses and other income, including significant profits from property development and development contributions, which CEC will apply to the development of Lines 1 and 2. However these income streams are still subject to uncertainty and CEC will require to act cautiously in applying them (by borrowing against them or otherwise) to make a contribution to the tram project until that uncertainty diminishes. The uncertainty will be eliminated gradually over time as the impact of service integration for trams and buses becomes clearer, the modelling of patronage and revenues becomes further developed, property development plans become more tangible and the anticipated operating cash flows from Lines 1 and 2 are proven during operations.

7.5 Milestone funding approvals

7.5.1 Consistent with the application of the phased approach to procurement described at section 4 above, the funding for implementation of Lines 1 and 2 is being approved and released to **tie** in three stages as follows:

- **August 2005** - Funding has been approved for the period 1 April 05 to 31 March 06 including design services and associated site investigation (under the SDS contract), the development of a refined Integrated Transport Model (under the JRC contract), market consultation on the procurement strategy and the development of tender documentation for the infrastructure and vehicle contracts.

- **March 2006 –** Subject to Royal Assent, funding will be approved for activities during the period from 1 April 2006 to 30 June 2007, the latter being the programmed date for commitment to the main infrastructure and vehicle contracts. This funding approval will follow submission by **tie** of an Outline Business Case in an agreed form at the end of February 2006. The activities so funded will include continuation of the SDS and JRC contracts and, critically, significant capital expenditure on utilities diversion works and land purchases.

Approval of the Outline Business Case will also constitute approval to issue tenders for the infrastructure and vehicles contracts assuming Royal Assent has been granted.

- **November 2006** - **tie** will submit a Final Business Case reflecting both the initial tender prices received and the outputs from the Integrated Transport Model with respect to tram revenues. At this point the phasing of the project will be confirmed in consultation with CEC and SE and it may be necessary to adjust the approved funding for utility diversions and land acquisitions.

- **June 2007** - An update of the Final Business Case will be submitted in June 2007, following final negotiation of tender prices. At this point confirmation will be required for the balance of funding to deliver the project prior to award of the infrastructure and vehicle contracts.

8. PROGRAMME

8.1 The table below gives the key dates from the programme at which decisions and approvals for funding and to proceed will be sought from CEC and SE. The programme covers the period up to commitment to the main infrastructure and vehicle contracts. **Note that in preparing this programme tie has assumed Royal Assent is given before the end of March 2006. Royal Assent is not in anyway taken for granted by tie or any other party involved in the project.**

8.2 This compressed duration programme is aimed at achieving minimum total inflated construction costs to deliver savings in terms of reduced inflation costs.

Activity / milestone	Dates
- Commencement of design (SDS) and related activities Commencement of the SDS/JRC contracts is now on the critical path for delivery of the project and capturing the risk mitigation and therefore cost saving benefits of **tie**'s procurement strategy.	**Sep 05**
- Royal Assent This is required before **tie** can commence utility diversions and before the tender documents are issued for the infrastructure and vehicle contracts.	**Assumed to be before end March 06**
- Confirmation of phasing plan **- Consult market on procurement strategy** **- Selection of financing structure** **- Draft TEL business model** **- Progression of design by SDS** These are the primary activities which will be further developed prior to issue of the OBC in February 2006. The operational assumptions regarding Lines 1 and 2, consequential changes to Lothian Buses operations and a high level business model for TEL will be completed. However, the OBC <u>will not</u> have the benefit of the additional comfort the Integrated Transport Model will bring to the TEL revenue projections and will not reflect tender prices in respect of the infrastructure and vehicle contracts.	**Aug 05 – Jan 06**
- Delivery of Outline Business Case (OBC) Which further refines phasing of the project to be tendered and the proposed funding structure (Conventional Funding or PFI)	**End Feb 2006**
- Approval to issue tenders for infrastructure and vehicles contracts **- Approval of funding for period to Jun 07** Approval of the OBC is the milestone by which approval of funding is sought for implementation activities in their entirety up to award of the Infraco and Vehicles contracts in June 07 to include continuing design (including planning permissions and traffic regulation orders), critical utility diversions and land acquisition costs.	**End Mar 2006**
- Issue of tenders for infrastructure and vehicles contracts **- Award of framework contract for utility diversions** **- Initial return of tenders for Infraco and tram vehicle contracts**	**April 06** **April 06** **Aug 06**

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Activity / milestone	Dates
- Delivery of Interim Final Business Case (FBC) During the tender period the output from the Integrated Transport Model will be received and the results built into the Business Case. Upon receipt of tenders in Aug 06 the Business Case will be updated again to reflect the tender prices received. The delivery of an Interim Final Business Case in November 2006 will serve to confirm that the assumed phasing of the project continues to be affordable and that the updated revenue projections, integrated into the TEL business plan, still reflect a supportable financial case for the project. Any adjustments to the phasing of the project will be made at this point before proceeding to a second tender stage and negotiation with the short listed tenderers.	**Nov 06**
- Tender assessment and negotiation	**Sep 06 – June 07**
- Deliver updated FBC to reflect final negotiated tender prices **- Award of infrastructure and vehicles contracts**	**June 07**

8.3 The current **tie** programme also indicates a 36 month construction programme from July 2007 to meet an operational date for the tram by mid 2010.This is a challenging timescale which will be constantly under review in detail up to the date of award of the infrastructure and vehicle contracts in light of the actual phasing plan adopted, the construction methods developed by **tie** and its contractors and the practicalities of limited sections of the Tram being operational prior to completion of both Lines 1 and 2 which is more likely to be during the year 2010.

9. PROJECT GOVERNANCE

9.1 Significant progress has been made recently with regard to the definition and implementation of governance arrangements for the project which are appropriate for the design and construction phase and which provide for effective consultation and decision making as between tie as project managers, TEL as eventual owners of Lines 1 and 2, CEC as sponsors and part funders and SE as principal funders of the project. In addition, the full involvement of Lothian Buses and Transdev is critical.

9.2 The key elements of the governance regime are:

Establishment of a Tram Project Board (TPB) - Consisting of the key stakeholders who have influence in facilitating the development and delivery of the Tram Project including tie, CEC, SE and TEL together with Lothian Buses and Transdev (in attendance). The TPB exists to “champion” the best interests of the Tram project and will consider all aspects of the project having an impact upon scope, cost and programme for the project as well as those impacting upon local transport strategy or the application of local or central government policy. Members of the Tram Project Board will “champion” the best interests of the tram project within their respective organisations.

Delegation of Authority to Tram Project Board and Tram Project Director - The intent is that the Tram Project Board will take over most of the authority vested in tie Limited through approved delegated authorities. These arrangements will change when the tie Board hands over formal responsibility to the TEL Board, who will inherit the responsibilities set out in the delegations. At that point, the tie Board's responsibilities will be focussed on delivery under contract to TEL (see below). A designated individual within tie is the Tram Project Director responsible for all aspects of the project, including, but not restricted to, procurement, design, development of Business Cases and funding sources (including funding from CEC and SE), parliamentary process and management of secondary consents (eg TROs and prior approvals), public consultation and external communication, land and property acquisition and construction. It is the responsibility of the Tram Project Director to report regularly and comprehensively to the Tram Project Board on programme, scope / quality and cost.

Enhanced Project Control Procedures – Including but not limited to:

- Cost control over expenditure are in place and being operated effectively, including monthly comparison of expenditure and outputs against budget
- Change control for the documentation and progression of changes proposed to the scope, cost or programme of the project or otherwise which require approval as matters of policy.
- Risk management
- Stakeholder communication encompassing public consultation and external communication in relation to the parliamentary process.

Plan for tie limited handover to TEL - This needs to be closely controlled to ensure continuity of experience and of processes. In the period until **tie** hands over to TEL, TEL requires to be populated at Board and senior management level and the Tram Project Board will take an active role in ensuring that this process is handled effectively. From the point of handover, **tie** will retain full delivery responsibility, contracted to TEL, and will therefore be able to minimise the actual level of disruption to the delivery process.