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Tyne and Wear Passenger Transport Authority

New Tyne Crossing

Proof of Evidence on Financial Analysis

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1 Introduction

1.1 Instructions

1.1.1 I am Nicholas James Chism MA, ACA of KPMG LLP, in London. As explained in section 1.3 below, I have previously been involved in advisory work carried out by KPMG for the Tyne and Wear Passenger Transport Authority ("TWPTA") in connection with the New Tyne Crossing.

1.1.2 KPMG is part of the consortium advising the TWPTA in relation to the implementation of the New Tyne Crossing and has rendered and will render fees to the TWPTA for its professional services. However, I am giving my evidence to the inquiry into the River Tyne (Tunnels) Order based upon my professional knowledge and expertise and I understand that my duty to the inquiry is to provide evidence which is objective.

1.1.3 The purpose of my involvement at the inquiry on behalf of the TWPTA is to give evidence in relation to financial matters that are specific to the New Tyne Crossing project. As such this evidence should not be treated as financial advice but as a specific consideration of the matters before the inquiry and no responsibility is accepted to any third party seeking to rely on the evidence for any purpose other than the inquiry.

1.2 Qualifications

1.2.1 I am a partner in KPMG LLP, specialising in project finance, Public Private Partnerships ("PPPs") and the Private Finance Initiative ("PFI")¹, particularly in the transport sector.

1.2.2 I have been advising on transport PPPs and projects since 1995. I have advised on the development of road and crossing projects for a number of national and local government bodies in the UK and overseas.

1.2.3 I have worked in the transport sector for 12 years. Prior to specialising in project finance, I managed the audits of a number of large transport companies. I am a member of KPMG's national transport sector management team.

¹ PPP is a term used to describe private sector cooperation in the delivery of public sector services; PFI is a term used to describe a type of PPP structure developed in the UK

1.2.4 I graduated from Oxford University and joined KPMG in 1990. I qualified as a chartered accountant in 1993. I became a director in KPMG LLP in 2000 and a partner in 2002.

1.3 **KPMG's work in connection with the New Tyne Crossing**

1.3.1 I am the partner leading the KPMG team which is advising TWPTA. The core team members are all corporate finance professionals with two to six years experience focusing on PPP/PFI transport projects. The team has also drawn on tax and accounting specialist expertise from within KPMG.

1.3.2 KPMG was appointed as financial adviser to the TWPTA by means of a sub-consulting arrangement with Ove Arup & Partners ("Arup"), dated 9 November 1999. The starting point for the work to be undertaken by KPMG was a decision that had been made by the TWPTA, as described in John Miller's Proof of Evidence, to proceed with the New Tyne Crossing project on a PFI/PPP basis. The TWPTA was seeking to develop a project proposition that would inform its decision to go forward and which would act as the basis on which an order under the Transport and Works Act 1992 ("TWA") might be secured and a procurement process could be progressed.

1.3.3 The work undertaken to date by KPMG has been focused on developing a financial model which, using certain input assumptions for immersed and bored tunnel design options, can determine the levels of revenue required for the project to proceed on the basis of a financially free standing PPP/PFI structure.

1.3.4 Using traffic forecast information provided by Arup we can then determine an estimated range of toll levels for each of these options. This range represents an estimate of the toll levels that, under various traffic scenarios, might be tendered by bidders for the New Tyne Crossing, on the basis that the revenues generated by such toll levels would be considered sufficient to support a robust business case for a PPP/PFI. The TWPTA can then consider whether such toll levels will be acceptable to the tunnel users. Based upon these factors a toll range for the immersed tunnel of £1.10-£1.55 and a base case rate of £1.30 for cars in 2007 (expressed in 1999 prices²) was presented to the TWPTA in February 2002. This work is considered in Section 2 of this Proof of Evidence.

² Tolls are expressed in 1999 terms as this has been the basis used for traffic modelling. The Retail Price Index (RPI) in December 1999 was 165.4 and in December 2002 176.2 (source: Office for

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1.3.5 Subsequent changes to the assumptions underlying the financial model have resulted in a revision to the range of toll levels, which is currently estimated to be £1.35-£1.85, with a base case toll rate of £1.55 for cars in 2007 (expressed in 1999 prices). This work is considered in Section 3 of this Proof of Evidence.

1.3.6 My conclusions in relation to whether the New Tyne Crossing project is reasonably capable of attracting the necessary funding are linked to this financial modelling work and to wider market issues, which are considered in Section 4 of this Proof of Evidence.

1.4 **The scope of my evidence**

1.4.1 In compiling my evidence I have used information supplied to me by other witnesses at this inquiry which is outside my field of expertise and which I have not independently verified. If any further information comes to light between the date of this Proof of Evidence and the date on which, if required, I give evidence to the inquiry, I may need to review my conclusions.

National Statistics). Hence, an item costing £100.00 in December 1999 would cost £106.53 in December 2002 ($100 \times (176.2/165.4)$).

2 Financial Modelling up to February 2002

2.1 Introduction

2.1.1 KPMG assisted Arup with the financial aspects of a project review carried out in May 2001 and a comparison of the immersed tube and bored tunnel options in February 2002.

2.1.2 For this purpose, KPMG undertook financial modelling to produce an estimated range of toll levels required to sustain a financially free-standing PPP/PFI structure for the New Tyne Crossing project. These toll levels were calculated on the basis of input assumptions relating to revenues and costs, which are discussed in more detail below.

2.2 The Financial Model

2.2.1 The financial model was prepared by an experienced financial modeller based on a structure appropriate for a PFI/PPP. The model takes the form of an Excel spreadsheet which, in common with most PFI/PPP models, focuses primarily on the cashflows of the special purpose company ("SPC") created to undertake the New Tyne Crossing project. It is assumed that this SPC incurs the costs associated with the design, construction, financing and operation of the New Tyne Crossing project and receives all (or almost all) the toll revenues from users. An SPC of this type is predominantly funded by debt finance with little or no recourse to its sponsors. For this reason, lenders place considerable emphasis on the identification and allocation of all project risks to those parties best able to manage them, including contractors, operators, insurers and the public sector.

2.2.2 The financial model is a key decision-making tool. Considerable emphasis is, therefore, placed on designing and building the model carefully, and verifying, validating and interpreting its results. Our modellers are experienced in such work and operate in accordance with KPMG's best practice guidance which is based on use of: consultation to ensure that work is scoped, planned, staffed and executed efficiently; accreditation; full documentation; and independent review.

2.3 Revenue

2.3.1 Arup has produced assumptions for expected revenues based on traffic. The financial model revenue line is based on these assumptions.

2.3.2 The traffic assumptions underlying the Arup revenue estimates are presented in more detail in the Proof of Evidence on Transport prepared by Gordon Henderson.

2.4 Costs

2.4.1 The following cost estimates have been produced by Arup and are discussed further by Richard Thurlow in his Proof of Evidence. They are produced for an expected concession period of up to 35 years.

- a. Construction costs (including costs for land and a monthly profile of the construction expenditure);
- b. Maintenance costs;
- c. Operational costs; and
- d. Indexation assumptions for these costs.

2.4.2 The following cost estimates have been provided by the TWPTA:

- a. Insurance costs; and
- b. Debt service commitments for the existing tunnel (which will be transferred to the concessionaire).

2.4.3 In addition, KPMG has provided cost estimates in relation to debt service commitments for the new crossing. These are based on assumptions relating to:

- a. The gearing of the project (ie, the ratio of debt to equity funding);
- b. The pricing of senior debt;
- c. The blended equity return sought by funders; and

d. Cover ratios sought by senior debt providers.

2.4.4 These estimates are based on KPMG's assessment of the project, relative to other tolled crossings and toll road projects which have come to the market in recent years.

2.4.5 An estimate of bidding costs including financial and legal advice, mobilisation costs and due diligence costs has been agreed between the TWPTA, Arup, Herbert Smith and KPMG.

2.5 Tax and accounting

2.5.1 In carrying out this financial modelling work, assumptions have been made by KPMG which are in accordance with UK legal and regulatory requirements and accounting practices.

2.5.2 I am advised by Herbert Smith that the proposed concession will be structured with a view to ensuring that European Law is fully taken into account so that VAT will not be chargeable on tolls.

2.6 Risk allocation

2.6.1 An outline risk allocation matrix has been developed by Herbert Smith and KPMG for the New Tyne Crossing. It is assumed that, in due course, this will be developed into a contractual framework which is broadly consistent with market norms for PPP projects of this type.

2.6.2 In brief, this matrix sets out a number of risks relating to design and construction, operation and maintenance, general legislative change, and finance, and considers whether each risk would be retained by the TWPTA, transferred to the concessionaire, or shared.

2.6.3 We would expect that the majority of these risks will be transferred to the concessionaire. However, it is market practice, and in the best interests of achieving value for money, for certain risks to remain with the TWPTA – eg. risks relating to access and latent defect risks in respect of the existing infrastructure. Similarly, certain risks may be shared - eg. those relating to force majeure events.

2.6.4 This matrix is a commercially sensitive document since, in due course, it will form the starting-point for TWPTA's negotiations with potential concessionaires.

2.7 Findings

2.7.1 The conclusions of this work were that the expected range of tolls required for a financially free standing immersed tunnel project was at this time estimated to be in the range of £1.10-£1.55 for cars in 2007 (in 1999 prices), with £1.30 confirmed as the base case toll rate.

3 Financial Modelling carried out since February 2002

3.1.1 We have been advised of various changes to the underlying assumptions since February 2002 and have updated the financial model accordingly. These include:

- a. A revised financial close date of 31 March 2005;
- b. A small proportion of traffic revenue being allocated to the TWPTA for VAT purposes;
- c. Outstanding debt on the existing tunnel being reduced as a result of the change in financial close date;
- d. Construction cost indexation being revised upward in line with the current market;
- e. The cost of construction insurance being increased;
- f. The level of equity in the form of share capital contribution being increased;
- g. The expected subordinated debt return being increased; and
- h. Senior debt service cover ratio requirements having been strengthened.

3.1.2 Taking account of these changes, the latest runs of the financial model produce an expected range of tolls of £1.35-£1.85 for cars and a base case toll for cars of £1.55 in 2007 (expressed in 1999 prices). These revised results may be subject to further refinement between the date of this Proof of Evidence and the date of the inquiry.

4 **Market appetite for the New Tyne Crossing**

4.1 **The market for road and crossing PPPs**

4.1.1 There is a well-established and active market in the UK and overseas for road and crossing projects funded as PPPs. In the UK and Ireland, more than 20 such deals have either reached financial close, or are currently in procurement. These include:

- a. Design, Build, Finance and Operate (“DBFO”) road projects promoted by the Highways Agency, variously based on shadow toll, availability, congestion and safety related payments (1996-present);
- b. DBFO projects promoted by local authorities across the UK, the Welsh Office and Scottish Office, based on similar payment mechanisms (1997-present);
- c. Tolled crossing projects – the Dartford-Thurrock Crossing (1987), the Second Severn Crossing (1990) and Skye Bridge (1992);
- d. The Birmingham Northern Relief Road, a privately operated toll road (2000); and
- e. A programme of real toll roads, backed by government subvention, based on the DBFO model promoted by the National Roads Authority in Ireland (ongoing).

4.1.2 I have variously advised the Highways Agency in England & Wales, and the National Roads Authority in Ireland, as well as several local authorities and a private sector consortium, on a number of these projects since 1996.

4.1.3 The DBFO projects listed above are based on a broadly comparable contractual model, which is subject to negotiation, but which is recognised as “bankable” – in other words, it is a suitable basis for attracting the necessary funding. It is anticipated that the New Tyne Crossing contractual framework will follow this model closely.

4.1.4 In addition to the projects listed above, similar road and crossing projects are being progressed in many countries worldwide, usually on a user paid toll basis, notably in Portugal, Spain, Italy, Greece, the Netherlands, Canada, South Africa, India and Australia. While it is difficult to measure the true size of such a diverse market, I have estimated that there are approximately 120 projects active or contemplated in more than

20 countries across Europe with a combined capital value of approximately Euro 60 billion. The worldwide market for such projects is very much greater but it would be extremely difficult to define.

- 4.1.5 I have had experience, predominantly in a more limited, consultative role, of advising on projects in a number of countries outside the United Kingdom and Ireland.
- 4.1.6 There are, within the UK market, a number of established consortia, comprising contractors, operators and other relevant parties, which at present are likely to have the technical capabilities and the financial standing to complete the New Tyne Crossing project. Furthermore, there are a number of other companies, which are not attached to these existing consortia, which may themselves express interest in the project, either by joining an existing consortium or by attempting to form a new one. A number of new consortia have recently entered the Irish market, where levels of international interest in projects has been very high.
- 4.1.7 In general, the market appetite for projects of this nature is good.

4.2 **Market appetite for the New Tyne Crossing**

- 4.2.1 The main distinguishing feature of the New Tyne Crossing project is that revenue payable to the concessionaire purely comprises toll revenues without public sector subvention. This toll revenue risk is mitigated by a number of factors that benefit the project, including the fact that tolls have been paid for many years on the existing crossing and that all (or almost all) toll revenue during construction will be payable to the concessionaire.
- 4.2.2 It is my view that, on the basis of the following fundamental assumptions:
- a. That the revenue and cost assumptions provided by Arup, and those financial costs assumptions provided by KPMG, prove to be complete and accurate;
 - b. That the TWPTA is correct in its assertion that the range of toll levels as set out in sections 2 and 3 will be acceptable to users of the New Tyne Crossing and that this view will be shared by bidders for the project, together with their lenders and advisers;

- c. That the current outline risk allocation for the New Tyne Crossing project is developed into a contractual framework which is broadly consistent with the bankable model currently used within the market; and
 - d. That current economic conditions remain favourable to projects of this nature;
- the New Tyne Crossing is reasonably capable of attracting the necessary funding.

4.3 **Conclusions**

- 4.3.1 For the purposes of analysing the financial aspects of the New Tyne Crossing project, KPMG has undertaken financial modelling appropriate for this type of PPP project.
- 4.3.2 We have used estimates provided by other experts to model the likely costs and revenues of the New Tyne Crossing, and have made assumptions on financing costs based on our experience of the PPP market.
- 4.3.3 The latest outputs from the financial model indicate an estimated revised range of £1.35-£1.85 for cars and a base case toll of £1.55 for cars in 2007 (expressed in 1999 prices). It is the view of the TWPTA that such toll levels are likely to be acceptable to users of the New Tyne Crossing.
- 4.3.4 I state that there is an active market for road and crossing PPPs.
- 4.3.5 On this basis, and assuming that market conditions remain favourable to this type of project and that contractual negotiations proceed successfully, then I believe that the New Tyne Crossing is reasonably capable of attracting the necessary funding.