

## **BRIEFING PAPER: STATION ACCESS AGREEMENT**

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<b>SUBJECT:</b>	Glasgow Prestwick Airport Airtrain Access Agreement
<b>PURPOSE:</b>	Identify the methodology and calculate the appropriate access charge for Glasgow Prestwick Airport Rail Facility
<b>DATE:</b>	29 March 2006

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### **Background**

Glasgow Prestwick Airport ('GPA') has the unique position of being the only company to independently own and operate a railway station ('Airtrain') in Scotland. Other than Glasgow Central and Edinburgh Waverley, all other stations are owned by Network Rail and leased to the Franchisee.

After entering into a long term lease with Rail Track PLC the station was built and funded by the Airport in 1994. The construction of the facility was managed by Professional Project Management Limited (PPM).

In addition to the construction of the station, a pedestrian overpass bridge was built to create a link between the Airport terminal and the station. This pedestrian bridge was funded by Enterprise Ayrshire and was also constructed in 1994.

#### *Original Access Agreement*

The Original Station Access Agreement for Operators of Passenger Services for Prestwick International Station was entered into between GPA and ScotRail Railways Limited (the then Franchisee).

This original agreement expired on 1 December 2004 however an amending agreement has now been executed that extends this agreement to October 2005.

Unfortunately the original access agreement put in place a zero access fee. This was due to the fact that a separate Travel Scheme Agreement had been entered into with Strathclyde Passenger Transport Executive which substituted a portion of the revenue that would have otherwise been derived from the original access agreement.

#### *Change in Franchisee*

As at 16 October 2004, ScotRail Railways Limited Franchise, as the passenger service operator for the Railroad system in Scotland, was transferred to First ScotRail Limited ('FSL').

Under *Section 220* and *Schedule 21* of the *Transport Act 2000*, the GPA Access Agreement was protected as a 'Primary Franchise Asset' for the term of the contract (now October 2005).

The Travel Scheme Agreement was not protected and in fact in a letter dated 3 September 2004 the Franchisee served a Notice of Termination of this agreement on GPA effectively terminating the agreement on or around 3 October 2004.

### **Access Charges**

The Office of the Rail Regulator ('ORR') regulates Access Charges across the United Kingdom. They conducted their first review of Access Charges in 1995 and shortly after they published their recommendations on how long term access charges should be calculated in the document known as 'A Fair Deal – Guidelines on Adjustments to Station Long Term Charges'.

Essentially the approach outlined in this document suggests that Access Charges are determined by allowing for:

- i. Capital costs of the asset owner meeting its obligations in respect of renewal of stations in 'modern equivalent form' and an appropriate return on capital. Both are based on the provision of 'Modern Equivalent Asset' in perpetuity; and
- ii. Costs of meeting its ongoing obligations in relation to;
  - a. operating the facility;
  - b. ongoing maintenance;
  - c. repair of the station structures; and
  - d. any other additional costs which are the responsibility of the facility owner.

#### *Modern Equivalent Asset Value*

The approach taken in the Fair Deal guidelines identifies the Modern Equivalent Asset Value ('MDV') as the basis upon which the calculation of the cost of capital should be formulated.

The definition of MDV is determined by reference to a facility that 'provides the same service potential as the existing asset, but takes account of up to date technology and the likely demand for future capacity and may therefore not involve a like for like replacement'.

Accordingly the modern equivalent form of an asset is the asset that would normally be installed or provided today which includes considerations of quality standards and present day technology.

The principle that the stations should be replaced in modern equivalent form reflects the prospect that physical changes may need to be made during the term of the Access Agreement at individual stations to provide a station fit and suitable for modern day requirements at that location.

#### *Appropriate Cost of Capital?*

The Office of the Rail Regulator (ORR) uses long term cash flow analysis to calculate a smooth long run cost of capital, i.e. the amount required to invest in and replace assets in perpetuity (as opposed to some other regulatory approaches that use current asset values plus depreciation in perhaps 5-year chunks).

The access charge that results is calculated based on a cost of capital (COC) and asset lives. A ready reckoner in the ORR guidelines indicates an access fee of £101 per £1000 of investment based on a return of 7.5% and life of 30 years.

The 'Fair Deal' states that this figure may be varied after consideration of the specific circumstances for the particular facility owner. In determining the appropriate cost of capital it is therefore not necessary to compare different facility owners but rather identify the following for the specific owner;

- cost of loans associated to the asset
- doubt over whether asset will continue to be used; and
- variances in the lengths of asset lives.

## Calculation of GPA Access Charge

By applying the methodology outlined above GPA has determined that the following principles should be applied in the determination of an appropriate Access Charge.

### *Modern Equivalent Asset Value*

For the purposes of determining the GPA Access Charge an independent assessment of the MEV was undertaken. Independent experts, PPM were commissioned due to their knowledge of the asset and familiarity of the site and valued the asset using a methodology consistent with the Fair Deal principles.

The PPM report dated 29 May 2005 concludes that the appropriate MEV for the GPA Railway Station is £3,534,000 and goes on to add that 'the above costs compares with the recently opened Gartcosh railway station which has a published cost of £3.5M'. A copy of this Report is attached and identified as Appendix A.

Valuing the Asset in this way will encourage efficient use of the asset by both the facility users and GPA, and will encourage sufficient investment in new facility capacity.

### *Cost of Capital*

After consideration of the GPA specific commercial environment we have concluded that a COC of 7.5% is both outdated and unsuitable due to the risk profile of the asset compared to that of the market as a whole. In our estimate of the access charge for GPA Rail Station, we have used a weighted average cost of capital (WACC) value of 9.3%, which we believe more fairly represents the nature of the asset. This WACC is based on the following assessment of its varying components:

#### Estimate of GPA Rail Station WACC

	Abbr	GPA Rail Station	
<b>Cost of capital</b>	<b>WACC</b>	<b>0.093</b>	
Cost of debt	Kd	0.031	
Cost of equity	Ke	0.140	
Equity beta	Be	1.833	
Risk-free rate annual	Rf	0.017	
Risk-free rate		0.017	1.68%
Asset beta	Ba	1.100	1.1
Leverage	L	0.400	40%
Corporate tax rate	Tc	0.300	30%
Tax rate on interest	Ti	0.300	30%
Debt premium	p	0.0146	1.46%
Post-tax market-risk premium	PTMRP	0.070	7.00%
		<b>9.3%</b>	

## **Risk-free rate**

The risk-free rate is an input both into the cost of equity and the cost of debt. The redemption yield on UK index-linked gilts provides a direct estimate of the real risk-free rate for different maturities. The risk-rate of return is calculated using Bank of England UK yield curve data.

The December 1999 periodic review document assumed a range of 2.25-3.0% for the real risk free rate. Obviously this is substantially higher than the current real yield on index-linked gilts. The Competition Commission concluded that there are specific UK liquidity related issues which have tended to reduce these yields (e.g. arising from the increasing maturity of UK pension funds and the low UK government borrowing). It argued that in assessing the risk-free rate relevant to the cost of equity, it is appropriate to adjust gilt yields for these liquidity factors (since they obviously do not affect the cost of equity). In conclusion, it considered a range of 2.75-3.25% and used the middle of this range, 3%, in assessing the cost of equity.

The rate is set based on the average risk-free rate (for 10 year government bonds) over the three months preceding 24 March 2006. The resulting current estimate of the risk-free rate is 0.93%. Adjusting for the liquidity factors above, we consider a value of 1.68% to be more appropriate.

Please see Appendix B.

## **Asset beta ( $\beta$ )**

$\beta$  is a measure of the relative risk of holding a particular company's stock versus the market portfolio. Our estimate of 1.1 for  $\beta$  is based on our current risk sharing arrangements and we have not attempted to make an estimate of the effect on  $\beta$  of the particular change in the pricing arrangements currently proposed.

### *ORR Guidelines*

The December 1999 periodic review document assumed that Railtrack's asset  $\beta$  was equal to 1.1 to 1.3 based on 50% gearing and assuming that the structure of charges is broadly cost reflective. Due to the identified differences in risk (particularly the high level of operational gearing), this is 0.1 to 0.3 (i.e. 10% to 30%) higher than the comparable betas assumed by the Office of Gas and Electricity Markets (OFGEM) for electricity distribution and by the CC for water and sewerage.

Please see Appendix C.

## **Capital structure (or gearing level)**

The capital structure refers to the use of debt and equity capital in the financing of a firm's assets. We have used 40% gearing for the purpose of our calculations. While we cannot adopt an actual level of gearing as our WACC calculation is based on a hypothetical replacement station, we believe this to be both plausible and conservative.

### *ORR Guidelines*

The CC, ORR and Civil Aviation Authority (CAA) have opted for actual levels of gearing on the basis that the firm is best placed to assess the appropriate financial structure, The CAA concluded that there is 'no adequate theory (or) normative model that would enable a regulator to establish (the) optimal gearing level'.

Please see Appendices C and D.

## **Corporate tax rate**

The actual figure of 30% was used as the project is based on a modern equivalent form being constructed. (Ref: Pricewaterhouse Coopers LLP)

Please see Appendix E.

### **Debt premium**

Debt is sourced from HSBC Bank plc, and the airport pays a debt premium of 1.26% over and above the London Interbank Offered Rate. This borrowing facility also attracts a fee of 0.2%, bringing the total debt premium to 1.46%. (Please see attached email correspondence between Graeme Sweeney (GM Finance, GPA) and Mike Lulham (HSBC Bank plc) in Appendix F).

### **Post-tax market risk premium**

The PTMRP represents the expected post-tax return on the market portfolio of assets over the risk free rate.

In the paper *Views of Financial Economists On The Equity Premium And On Professional Controversies*, the consensus of 226 academic financial economists forecasts an arithmetic equity premium of 7% per year over 10 and 30 year horizons. Estimates of historic excess returns on equity from the UK, US and Japan range between 8.0% and 9.4%. The weight of evidence from academic studies at this stage suggests that the market risk premium lies above 4% but below 8% (Ref: Office of Communication). GPA regards a PTMRP of 7.0% as falling within the plausible range for estimates of the post-tax market risk premium.

Please see Appendices G and H

### **Return on capital**

By applying the 9.3% WACC value it is submitted that the difference between this value and the generic figure of 7.5% identified on page 17 of 'A Fair Deal: Guidelines on Adjustments to Station Long-Term Charges', should be applied to the ready reckoner value of £101 per £1000. Accordingly an estimated value of £118 per £1000 has been applied.

### *Cost of Ongoing Obligations in relation to the GPA Facility*

#### *Operating Expenditure*

In an attempt to obtain a fair and reasonable assessment of the operating, maintenance, repairs, and other related expenses, GPA has taken the view that historical data provides the most accurate assessment of the level of these expenses. Accordingly, the actual expenditure for period FY03 to FY05 has been used and an average identified for its use in the calculation of this component of the access charge. The following table provides a summary of this analysis:

<b>Operating Expenditure Schedule</b>			
<b>Description</b>	<b>FY03</b>	<b>FY04</b>	<b>FY05</b>
Maintenance	£ 8,859	£ 11,865	£ 7,316
Repairs	£ 2,885	£ 11,955	£ 19,122
Insurance	£ 109,735	£ 109,735	£ 109,735
Security	£ 5,385	£ 4,160	£ 4,160
Regulatory Inspections	£ 11,985	-	-
Rail Consultant	£ 16,000	£ 16,000	£ 16,000
Audit	£ 4,000	£ 4,000	£ 4,000
HMRI Fees	£ 3,333	£ 3,333	£ 3,333
Lease	£ 7,715	£ 7,715	£ 7,715
Rates	£ 30,000	£ 30,000	£ 30,000
<b>Total</b>	<b>£ 199,897</b>	<b>£ 198,763</b>	<b>£ 201,381</b>

The average of the period equates to a figure of £200,014. This amount has been used for the purposes of determining the operating expenditure as outlined by the ORR guidelines.

In addition £20,000 has been allocated for Management costs associated to the facility. A survey of those currently involved in the management of the station indicates that at least five employees are involved, in varying proportion, in the management of this facility. While the exact figure is difficult to determine we believe that this allocation is in the lower end of the range.

It should be noted that given the unique nature of the operating environment of the GPA Rail Station the operating costs associated to this facility are not comparable to those of other stations throughout Scotland and the United Kingdom. Airport facilities are exposed to tighter restrictions and obligations, particularly with regard to insurance and security, which directly impacts on the operating costs associated to its facilities.

Please see Appendix I.

### **Access Charge Structure**

Table A (below) represents the culmination of the varying components to the proposed access charge as described above. This table identifies that in 2005 an appropriate level of £637,616 which is consistent with the methodology outlined in the ORR guidelines.

For the purposes of this analysis we have assumed Retail Price Index of 2% per annum over the period to 2015 which is consistent with current market forecasts.

### **Conclusion**

There are a number of different costs associated with a station: capital expenditure, maintenance, renewal and repair costs, and the day-to-day running costs for its operation. The spirit of the ORR guidelines clearly looks towards the access charges as being a means by which facility owners are compensated for bearing the station's capital costs, operating and maintenance costs, and taxes, as well as providing them with a rate of return. This rate of return should reflect what these investors could be earning by committing their funds to an alternative project of similar risk; that is the opportunity cost of capital.

GPA Railway Station is unique in that it is the only independently owned and operated station in Scotland. Owners of multiple stations enjoy significant economies of scale, in terms of both ownership costs, and also operating and maintenance costs. GPA bears significant one-off costs – such as insurance – without the benefit of being able to spread these costs across multiple sites.

For this reason, costs are comparatively high – around £200,000 per annum – and the asset is relatively risky when compared with the market as a whole. In our assessment a weighted average cost of capital of 9.3% fairly reflects this and is consistent with the ORR methodology.

**TABLE A: GLASGOW PRESTWICK AIRPORT RAILWAY STATION PROPOSED ACCESS CHARGE**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Weighted Average Cost of Capital	9.3%										
Modern Equivalent Value of Station	3,539,000	0	0	0	0	0	0	0	0	0	0
Ready reckoner (per £1,000)	118										
Operating expenditure	200,014	200,014	200,014	200,014	200,014	200,014	200,014	200,014	200,014	200,014	200,014
Management costs	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Cost of capital	417,602	417,602	417,602	417,602	417,602	417,602	417,602	417,602	417,602	417,602	417,602
<b>Access charge</b>	<b>637,616</b>										
RPI forecast		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
<b>Access charge adjusted for RPI</b>	<b>£637,616</b>	<b>£650,368</b>	<b>£663,376</b>	<b>£676,643</b>	<b>£690,176</b>	<b>£703,979</b>	<b>£718,059</b>	<b>£732,420</b>	<b>£747,069</b>	<b>£762,010</b>	<b>£777,250</b>

