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ACCESS ARRANGEMENT FOR ROMA BRISBANE PIPELINE

Further Information provided to ACCC

21 February 2006

Australian Pipeline Trust

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1 Introduction

On 31 January 2006, APTPPL submitted an Access Arrangement and Access Arrangement Information for the RBP. This document provides further information in support of the Access Arrangement.

This submission has the following structure:

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2 Basis of ORC calculation

The NPV-DORC calculated by APTPPL was based on an ORC reflecting forecast load growth for the next 20 years. NPV DORC is defined as:[1]

> *NPV cost-based DORC represents the difference between:*
>
> *1. the present value of the costs of providing a stream of services using the efficient optimised replacement infrastructure and subsequent replacements (with replacements made at the end of the optimised replacement asset's life), and*
>
> *2. the present value of the costs of providing a stream of services into perpetuity using the existing infrastructure and subsequent replacements (with replacements made at the end of the existing infrastructure's life).*

It is reasonable to approach the calculation of NPV DORC on the basis that efficient optimised replacement infrastructure reflects the optimised cost of providing forecast levels services over a reasonable period, rather than the optimised cost of providing the existing level of services. Development of an ORC for only the existing service requirements will not reflect "efficient optimised replacement infrastructure" where it is less costly, on a whole of life approach, to build a pipeline with greater initial capacity and lower subsequent capital costs.

This approach is consistent with the following statements (emphasis added):

Allen Consulting[2]

> *The objective of an ODRC valuation is to estimate the maximum price that a person would be willing to pay for an existing asset, given the alternative of constructing a new asset. In effect, it is an estimate of the price that an asset would sell for if that asset was traded in a liquid second-hand market (like used cars). In such a market, the value for the existing asset would reflect the* ***cost of a new – and optimum – asset****, but would also reflect all of the differences in the forward-looking service potential and costs of associated with the existing asset, compared to the new asset (all discounted to a present value or cost).*[3]
>
> *…*
>
> *It follows from both of these observations that using the conceptually-correct ODRC as the regulatory asset base at each point in time would systematically understate the cost of actually providing the service. The two possible responses to this problem would be either to inflate the cost of constructing the optimal system at each point in time to recognise a level of pre-building,* ***or to determine the optimised system as one that is optimal over a normal planning horizon. The latter of these would appear more practicable***[4] *…*
>
> …

> *In addition, it is also understood that **the optimal system is also assumed to be designed to meet forecast demand growth**, with a planning horizon of between 10 and 15 years commonly assumed.*[5]

IPART[6]

> *An optimised system is a reconfigured system using modern technology designed to serve the current load with current technology, **with some allowances for growth**. This method excludes any unused or under utilised assets and allows for potential cost savings that may have resulted from technological improvement."*

This definition was also accepted by the Office of the Rail Access Regulator (WA) in 2002.[7]

3 Calculation of DORC

3.1 New Entrant cf Incumbent DORC

In *Application of EAPL*, the ACCC, the Applicant and the Tribunal had proceeded on the basis that NPV DORC would be calculated from the viewpoint of a hypothetical new entrant (HNE). According to this approach, DORC is the amount an HNE would pay an incumbent to acquire the existing asset given that an HNE has the option to build a new asset of identical service capability (and earn the same revenues) (HNE DORC).

As the Tribunal said in its Reasons for Decision[8]:

> *It is clear from the Reasons (dated 8 July 2004) that the Tribunal assumed that the calculation of DORC would be made from the viewpoint of an HNE (see [18], [26], [31], [36]-[38] and [51]. That is hardly surprising as that was the way in which the matter was presented in the Final Decision of the ACCC when understood in the light of the history of the matter and the underlying material. In the Final Decision, see particularly that which appears in cl 2.2.7 under the heading "Depreciated Optimised Replacement Cost" and "Depreciated Optimised Replacement Cost Methodology" in the light of that which appears in cl 2.2.4 under the heading "Depreciated Optimised Replacement Costs" and the second last paragraph on p 68. The Final Approval of the ACCC merely maintained the preference for the straight line approach.*

In an Amended Submission filed on 20 December 2004, after the Tribunal had delivered its original Reasons for Decision, the ACCC proposed for the first time an alternative approach to the calculation of NPV DORC[9]. According to this approach NPV DORC would be calculated as the value of an existing asset to the incumbent owner given that the incumbent owner has the option to build a new asset of identical service capability (and earn the same revenues) ("incumbent DORC").

Incumbent DORC, as formulated by the ACCC, can produce a significantly different value from that produced by HNE DORC because incumbent DORC takes into account the tax position of the incumbent owner who may have used up all or a substantial part of the available tax depreciation.

The Tribunal decided that it was too late in those proceedings for the ACCC to raise this alternative approach and that NPV DORC should be calculated from the viewpoint of the HNE[10]. The Tribunal noted, however, that "all questions can, and should be, dealt with in the context of a particular application having regard to the particular facts applicable" and its decision did not preclude a proper consideration of DORC based upon the incumbent rather than an HNE in another case[11].

As matters stand, the regulatory precedent and regulatory literature supports calculation of NPV DORC from the viewpoint of the HNE. It does not support incumbent DORC.
As the Tribunal held in *Application of EAPL*, "the principle underlying use of the HNET is effectively the same principle as underlies the use of DORC and is also the principle underlying s 8.10(i) of the Code"[12].

The "value" to which incumbent DORC gives rise will vary according to the incumbent's length of ownership and other factors affecting its individual tax position. For example, if a pipeline owner has used up all available tax depreciation and sells the pipeline to a new entity just before applying for an access arrangement, the DORC would be significantly higher as the new entity could access a full stream of deductions for tax depreciation. This is inconsistent with the very concept of a valuation technique required by s 8.10 of the Code.

Incumbent DORC also involves discrimination between existing and new pipelines. As the Tribunal found[13]:

> *There is no indication in the Code that there is to be discrimination in principle between the operators of existing as opposed to new pipelines. As it is fundamental that the ICB is the actual cost of a new pipeline, it can be assumed that the objective of the Code in relation to an existing pipeline is to attribute to it a value that would be consistent with that principle.*

The owner of a new pipeline will obtain an initial capital base under section 8.12 which reflects the actual capital cost of the assets. No deduction is made from that initial capital base on the ground that the owner of the new pipeline may receive deductions for tax depreciation. If there are such deductions, they will, however, be taken into account later in the process because the ACCC regulates post-tax returns. On the other hand, under the incumbent DORC approach, the operator of the existing pipeline has its initial capital base reduced to the extent that it has used up available tax deductions. This introduces a form of discrimination the Code does not allow.

There are no special factors in this case that would overcome objections like this to the use of incumbent DORC or render it appropriate in the circumstances of this case. APTPPL takes the view that the HNE DORC approach is appropriate. This is the approach that has been used in modelling NPV DORC.

3.2 Discount rate

On the issue of appropriate discount rates to be used in NPV DORC the Tribunal[14] said:

> *In the usual case of NPV asset valuation net revenues are used. In that situation WACC would be the usual discount rate since it is the rate of return that a service provider is permitted to earn on an asset. Although cost differences are used for the DORC NPV valuation, that is done to avoid the circularity inherent in the use of regulated tariffs as revenues. If one accepted the ACCC's argument and did not use WACC in the DORC exercise, then it is arguable that the inability to use net revenues would lead to a further distortion. Our conclusion is consistent with the manner in which the Gas Code deals with related topics and with other regulatory actions by the ACCC.*

While the Tribunal did not preempt the possibility of a different conclusion on the basis of empirical data and expert opinion in another case, there is no good reason to depart from WACC as the discount rate in this case.

APTPPL takes the view that a WACC discount rate is appropriate. This is the approach that has been used in modelling NPV DORC.

3.3 Expansion costs used in NPV DORC calculation

The ORC used in calculation of the NPV DORC was for a pipeline optimised for forecast load growth. Accordingly, in calculating the present value of the costs of the existing assets, APTPPL took account of the costs of expansion which would be required to enable the existing assets to satisfy the growth forecasts reflected in the ORC.

Details of the assumed capital expansion costs are attached at Attachment 1.

3.4 Value of NPV DORC for the RBP

The NPV DORC value described in the Access Arrangement Information was $342.6 million. Following revision of the model, APTPPL believes the more accurate figure is $343.0 million. This correction takes account of the impact of productivity improvements in the years before capital expansion is required. However, at the current time APTPPL does not propose revising the initial capital base value to reflect the correction.

The NPV DORC calculation was undertaken by Charles River Associates International. A report by Charles River providing details of the calculation is attached at Attachment 2.

4 Actual Cost

In the Access Arrangement Information, APTPPL provided details of the indexed actual cost of the RBP.

Details of this calculation are attached as Attachment 3.

5 Capital Expenditure

The Total Revenue in the Access Arrangement includes minor capital expenditure and stay in business capital for the existing pipeline.

The amounts included by APTPPL in the calculation of Total Revenue represent efficient cost of work required for the continued safe and reliable operation of the pipeline. In particular, the forecast expenditure reflects a program of work required to be undertaken to ensure the ongoing integrity of the RBP.

Amounts have been allowed for pigging of the RBP in two years to reflect the fact that both the DN 400 and the DN 250 need to be pigged. This is consistent with AS 2885.3 which requires periodic inspections, with frequency dependent on the condition of the pipeline, and the Queensland Petroleum and Gas (Production and Safety) Act which requires pigging of established pipelines at an interval of no longer than 10 years.

6 Depreciation

6.1 Introduction

APTPPL has adopted the NPV methodology to determine the Total Revenue, and hence depreciation.

The Code (sections 8.33 and 8.34) outlines a series of factors that should be considered in establishing depreciation under the NPV methodology. In particular section 8.34 requires

> *If the IRR or NPV methodology is used, then the notional depreciation over the Access Arrangement Period for each asset or group of assets that form part of the Capital Base is:*
>
> *(a) for an asset that was in existence at the commencement of the Access Arrangement Period, the difference between the value of that asset in the Capital Base at the commencement of the Access Arrangement Period and the value of that asset that is reflected in the Residual Value; …*
>
> *and, to comply with section 8.33:*
>
> *(c) the Residual Value of the Covered Pipeline should reflect notional depreciation that meets the principles of section 8.33; and*

> *(d) the Reference Tariff should change over the Access Arrangement Period in a manner that is consistent with the efficient growth of the market for the Services (and which may involve a substantial portion of the depreciation taking place towards the end of the Access Arrangement Period, particularly where the calculation of the Reference Tariffs has assumed significant market growth and the Pipeline has been sized accordingly).*

APTPPL has applied depreciation to meet these requirements, particularly:

- each asset is depreciated over its economic life (Code, Section 8.33 (b)); and
- each asset is depreciated only once (Code, Section 8.33 (d)).

6.2 Calculation of Asset Lives

The RBP is treated as a single pipeline, including in terms of licence, contracts, operations and regulation. The Reference Service is available irrespective of the age of the individual components proving the Service.

For the purposes of the Access Arrangement, the economic life of pipe constructed before 1970 is assumed to be 60 years and the economic life of pipe constructed after 1970 is assumed to be 80 years. This difference in assumed economic life arises from the coating/wrapping treatment adopted when the pipeline was developed. In particular, much of the original pipeline has single wrap coating which, on a conservative approach, suggests either an economic life of 60 years or, alternatively, the need for remedial maintenance in the later years to extend the economic life to 80 years. The metropolitan section of the original pipe has double wrap coating and can be expected to have an economic life of 80 years. In developing the Access Arrangement, APTPPL adopted a conservative approach and treated the whole of the original pipe as having a life of 60 years.

There are nine different construction phases on the pipeline[15]. These have been weighted to determine a single economic life and remaining economic life. The individual lengths of pipe have been weighted by volume as a proxy for its service capability. The use of other weightings (such as construction date or distance) is considered to be unreasonable because such weightings would not bear any meaningful relationship to the service potential of the various assets.

This approach results in a weighted economic life of the pipeline assets of 74 years, with a remaining life at 1 July 2006 of 57 years. This reflects the relativities of volume between the original pipeline, (with its assumed 60-year life) and the newer looping (with its assumed economic life of 80 years).

The economic life and the remaining economic life of buildings and receipt and delivery stations has been assumed to be the same as for the pipeline assets. Communication assets are assumed to have an economic life of 15 years, consistent with the Goldfields Gas Transmission Access Arrangement. These assets are treated as having a remaining economic life of 9 years as "other assets" on the APTPPL asset register, including communications assets, have an average age of approximately six years.

Compressors are treated as having an economic life of 35 years. The compressors currently on the RBP were installed over a 5 year period in the mid 1980s. The average remaining life for the compressors is 12 years. This is calculated by calculating the remaining life of each individual compressor and then averaging.

7 Non-Capital Costs

The Code (sections 8.36 and 8.37) outlines a series of factors that should be considered in establishing pipeline non-capital costs:

> *Non Capital Costs are the operating, maintenance and other costs incurred in the delivery of the Reference Service. Non Capital Costs may include, but are not limited to, costs incurred for generic market development activities aimed at increasing long-term demand for the delivery of the Reference Service.*
>
> *A Reference Tariff may provide for the recovery of all Non Capital Costs (or forecast Non Capital Costs, as relevant) except for any such costs that would not be incurred by a prudent Service Provider, acting efficiently, in accordance with accepted and good industry practice, and to achieve the lowest sustainable cost of delivering the Reference Service.*

7.1 Corporate Costs

Corporate labour costs are escalated at 6% per annum to reflect forecast salary and personnel increase.

Australian Bureau of Statistics[16] shows private sector full-time adult ordinary time total earnings increased by 6.7% pa in the year to August 2005. APTPPL used this in developing its forecast labour cost increases of 6%.

7.2 Operations and Maintenance Cost: Agility

Agility provides operations and maintenance services for the RBP pursuant to the Pipeline Management Agreement (PMA) which was established at the time of the float of Australian Pipeline Trust in 2000. The services and fees under the PMA are in two categories:

- Specified Services – services required for safe, efficient operation of the pipeline as configured at 13 April 2000; and
- Additional Services – services for assets constructed or modified after 13 April 2000, and non-routine items such as erosion and subsidence mitigation, development of welding procedures and easement land management services.

The PMA provides scope for APT to implement contestability in the provision of some of the services provided by Agility under the PMA, commencing 1 July 2005. In 2005, APT and Agility undertook negotiations in relation to the scope and cost of services to be provided from 1 July 2005. Those negotiations resulted in agreement on a revised fee for the provision of services from 1 July 2005 to 30 June 2010. The revised fee is $5.5 million in 2006, and covers all planned/routine work being performed by Agility as at 30 June 2005, both as Specified Services and Additional Services. [TEXT CONFIDENTIAL:]

The revised fee payable to Agility is consistent with benchmarks of efficient pipeline operating costs as outlined in the AAI.

The contestability mechanism in the PMA related only to part of the services performed by Agility. In addition to the benefits of continuing to have services performed by an expert pipeline services company, the following considerations meant that the continued use of Agility as the single service provider was efficient:

- contracting part of the services to a third party would have resulted in operations and maintenance services being provided by difference service providers – this would create the risk of inconsistencies or omissions in services, and would also have increased APTPPL's costs of managing the provision of services on the RBP;
- a third party service provider would have incurred mobilisation costs, which would have been passed through to APTPPL, and
- APTPPL would have incurred implementation costs in the establishment of new systems and processes with the third party.

[TEXT CONFIDENTIAL:]

8 Volumes

8.1 Basis of forecast

The volume forecast developed by APTPPL for the Access Arrangement reflects the following:

- Contracted load
- Organic growth in the retail gas market - this growth is assumed to be 3% pa.
- No growth in the large industrial market
- Step change growth in the power generation market.

In recent years the volumes through the RBP have been growing strongly, due to:

- Steady organic market growth due to economic growth in south east Queensland; and
- Step change growth occurring in the power generation market arising from:
  - availability of competitively priced gas from coal seam methane
  - changes within the electricity market
  - continuing strong demand for electricity in south east Queensland[17].

These factors are forecast to continue to affect gas usage in south east Queensland.

The NEM Statement of Opportunities[18] shows that by 2011-12 approximately 1000 additional installed MW of power generation capacity will be needed to meet Queensland electricity needs. APTPPL has included in its forecast the construction of one additional power station that will utilize the RBP after 2011.

8.2 Volume Forecast used for Reference Tariff

The Access Arrangement provides for a Reference Service provided by the RBP as configured at 31 January 2006 (**Existing Capacity**). No expansion capital is included in the Access Arrangement Period and therefore the forecast volumes used to derive Reference Tariffs reflect only the Existing Capacity.

9 Derivation of Reference Tariffs

9.1 Tariff Overview

The Reference Service is a firm forward haul service with a postage stamp tariff.

The Reference Tariff under the Access Arrangement is set to be broadly consistent with current and future prices that have underpinned the growth of the RBP over the previous ten to twenty years.

Based on forecast volumes and costs, a price path escalating a 100% of CPI from July 2006 was developed to reach a 2011 Reference Tariff which, on the basis of forecasts load growth, approximates the forecast average tariff at that time for Existing Capacity under current contracts. This price path enables recovery of the ICB over the remaining economic life of the pipeline assets without price shocks.

9.2 Tariff Structure

The most common form of tariff structure on the RBP can be characterised as a capacity - commodity charge tariffs. This is consistent with the proposed Reference Service.

The price path is based on a load factor of approximately 80% - this load factor is based on 2005-06 forecasts and is consistent with the historical usage on the RBP.

Footnotes

1 1 At paragraph A.1.3 of the ACCC's Amended Submission to the Tribunal filed on 20 December 2004 in *Re Application of East Australian Pipeline Limited (No 8 of 2003)* ("Application of EAPL").

2 2 Allen Consulting, Methodology for Updating the Regulatory Value of Electricity Transmission Assets, Report to ACCC, August 2003

3 3 Ibid p20

4 4 Ibid p25

5 5 Ibid p34

6 6 IPART, Aspects of the NSW Rail Access Regime, Final Report, April 1999, p.34.

7 7 Office of the Rail Access Regulator (WA), A Brief Comparison of the WA Rail Access Code Approach to Calculating Ceiling Cost with the Conventional Depreciated Optimised Replacement Cost Methodology, 2002, p1

8 8 Reasons for Decision, 18 March 2005, paragraph 6.

9 9 At paragraph A.1.6 of Amended Submission filed 20 December 2004 in *Application of EAPL*.

10. Reasons for Decision of 8 March 2005, paragraph 10.

11. Ibid, paragraph 12

12. Reasons for Decision dated 8 July 2004, paragraph 31.

13. Ibid, paragraph 16

14. Reasons for Decision of 8 March 2005, paragraph 15.

15. The stages are the original pipe, six stages of looping, the Peat Lateral and the Scotia extension to the Peat Lateral.

16. Australian Bureau of Statistics Report 6302.0 Average Weekly Earnings August 2005

17. NEMMCO, 2005, Statement of Opportunities Section 3.2.1, p 3.5 notes that Queensland consumption is projected to increase over the period between 2005 and 2015 by an average of 3.2% each year under the medium growth scenario, and by 4.8% and 1.8% under the high and low growth scenarios respectively.

18. Ibid, p2.9 figure 2.3

ATTACHMENT 1: ASSUMED CAPITAL EXPANSION COSTS

[TEXT CONFIDENTIAL]

ATTACHMENT 2: REPORT BY CHARLES RIVER AND ASSOCIATES

ATTACHMENT 3: DERIVATION OF ACTUAL COST

Due to the age of the RBP and changes of ownership and ownership structure, accurate information on the actual capital cost of the Covered Pipeline is not available.

In estimating the actual capital cost, APTPPL used the following process

1. Actual cost values recorded in the 2005 APTPPL asset register were escalated by the relevant CPI increase between the year of the asset's purchase and 2005. This gives an indexed actual cost of assets in the asset register of approximately $228 million;

2. The asset register contains several asset revaluations. These were subtracted from the figure derived in point 1 above as it is not clear whether these asset revaluations were relevant to the actual capital cost of the Covered Pipeline; these revaluations have an indexed cost of approximately $52million.

3. The RBP was commissioned in 1969, however there are no assets recorded in the asset register for dates prior to 1971 (with the exception of land at $2,643). Thus the original pipe needs to be added to the figure derived in 1 and 2 above. The 1969 balance sheet shows fixed pipe and plant at $8.9 million cost, this value has been escalated by the CPI increase between 1969 and 2005 to give an indexed actual cost of approximately $78 million.

The calculations above produce a CPI indexed actual cost of the RBP of $253 million in 2005. If a forecast CPI of 2.88% is used then the July 2006 CPI indexed actual cost of the RBP is approximately $260 million.