



**ANGLO
COAL**



Mitsui Moura

INVESTMENT PTY LTD

A.B.N. 92 088 091 356

ACCESS ARRANGEMENT INFORMATION

DAWSON VALLEY PIPELINE

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SECTION 1 – INTRODUCTION

Overview of the Access Arrangement Information

This document is the Access Arrangement Information in relation to the Access Arrangement for the Dawson Valley Pipeline (**DVP**). It has been submitted by Anglo Coal (Dawson) Limited, Mitsui Moura Investment Pty Ltd and Anglo Coal (Dawson Management) Pty Ltd (**Anglo Coal**) pursuant to section 2.2 of the Code.

The purpose of this document is to set out such information as is necessary to enable Users and Prospective Users to understand the derivation of the elements of the Access Arrangement and to form an opinion as to the compliance of the Access Arrangement with the provisions of the Code.

Terms used in this Access Arrangement Information have the meanings given to them in Schedule 1 of the Access Arrangement or the Code as the case may be.

Background

The DVP was constructed in 1996 by Conoco Australia Pty Ltd as part of its development of the Dawson Valley coal seam gas fields. It is covered by petroleum pipeline licence PPL 26 granted under the *Petroleum Act 1923* (Qld).

On 1 April 1998, Oil Company of Australia (Moura) Pty Limited and Oil Company of Australia (Moura) Transmissions Pty Ltd acquired the DVP and its associated gas fields (not including the Mungi field) when it acquired 100% of the issued share capital of Conoco Australia Pty Ltd and its controlled entity, Conoco Australia Pipelines Pty Ltd.

In 2000, the Code was introduced and the DVP became automatically covered from the date of commencement of the Code.

On 23 November 2000, the Minister for Industry, Science and Resources decided to revoke coverage of the DVP following the National Competition Council's (**NCC**) recommendation that regulated access to the DVP would not promote competition in another market or confer net public benefits.

On 16 March 2005, Molopo Australia Limited made an application to the NCC under the Code requesting that the DVP be covered.

On 31 March 2006, Anglo Coal (Dawson) Ltd and Mitsui Moura Investment Pty Ltd together as participants in the Dawson Joint Venture (**Anglo-Mitsui**) purchased assets of Oil Company of Australia (Moura) Pty Limited and Oil Company of Australia (Moura) Transmissions Pty Ltd, including the DVP and its associated gas assets.

On 10 May 2006, the Minister for Industry, Tourism and Resources decided that the DVP be covered.

The DVP transports gas 47km from the Dawson Valley gas fields to the Wallumbilla to Gladstone Pipeline (Queensland Gas Pipeline).

Currently, the only user of the DVP is Anglo-Mitsui.

The DVP is a single high pressure gas pipeline of 168.3mm outside diameter. The maximum allowable operating pressure is 14.6MPa.

The maximum capacity of the pipeline is 30TJ/day.

SECTION 2 – ACCESS AND PRICING PRINCIPLES

System Definition

The DVP is described in section 1 of this Access Arrangement Information. The Access Arrangement applies to the DVP as configured at 10 May 2006. The Reference Tariff has been derived on the basis of the firm throughput forecast for the DVP outlined in section 5 of this Access Arrangement Information.

Determination of Total Revenue

The Total Revenue is calculated according to the cost of service methodology as provided under section 8.4 of the Code.

In determining the Total Revenue, Anglo Coal has adopted a nominal approach as permitted under section 8.5A of the Code. The Total Revenue is based on:

- (a) a nominal Rate of Return being applied to the nominal Capital Base; and
- (b) economic depreciation, capital costs and non-capital costs expressed as nominal values.

The model used to derive Total Revenue is an annual model.

Reference Service and Cost Allocation

There is one Reference Service offered on the DVP - a firm, forward haul service for receipt, transport and delivery of gas in the direction from the Dawson Valley gas fields to the Queensland Gas Pipeline. Consistent with existing contracts and customer enquiries, Anglo Coal considers this to be the only Service likely to be sought by a significant portion of the market.

All of the Total Revenue is allocated to the Reference Service over the Access Arrangement Period.

In deriving capacity and throughput charges no allowance has been made for revenue that may accrue from any other charge as these are not considered material. Other charges include, but are not limited to, Overrun Charges.

The Reference Service is comprised of a single capacity charge (expressed in \$ per GJ of MDQ/day). This reflects the fact that the costs of providing the Services are fixed and do not vary with the quantity of Natural Gas transported as no pipeline compression is required along the DVP.

The Reference Tariff is a single tariff for receipt, transport and delivery of gas anywhere along the DVP.

Price Path

As permitted by section 8.3(b) of the Code, Anglo Coal has adopted a Price Path Approach, under which Reference Tariffs are determined for the whole Access Arrangement Period to follow a path forecast to deliver the Total Revenue.

As Reference Tariffs were determined on the basis of assumed movements in CPI over the Access Arrangement Period, the Access Arrangement provides for Reference Tariffs to be adjusted to reflect actual movements in the CPI.

SECTION 3 – CAPITAL COSTS

Depreciated Optimised Replacement Cost (DORC)

Anglo Coal used a simplified DORC approach to value the DVP. A DORC approach involves estimating the efficient cost of constructing the asset using current technology to meet current markets, which results in the identification of the Optimised Replacement Cost of the asset. Depreciation is then applied to the ORC to determine the DORC. The approach used by Anglo Coal involved identification of assets in use and application of adjustment factors applied to the historic unit costs to bring those costs into line with estimated current replacement costs.

Optimised Replacement Cost (ORC)

As stated in section 1 of this Access Arrangement Information, the DVP, constructed in 1996, is 47 km long and has a 168.3mm outside diameter. The DVP is a free-flow pipeline with no compression facilities. The current configuration of the DVP is considered the minimum design for a transmission pipeline and as such no optimisation has been undertaken.

In order to arrive at an estimate of the replacement cost of the assets, Anglo Coal has relied on a desk top update of the historical asset costs to reflect changes in unit rates. This exercise was undertaken by GHD on behalf of Anglo Coal.

Valuation of non-system assets

There are no non-system assets (ie land and buildings, plant and equipment) to be added to the valuation.

Initial Capital Base

In arriving at an initial capital base (**ICB**) various factors were considered, including:

- an estimated ORC of \$9.169 million (2006 \$);
- accumulated depreciation of \$1.528 million (2006 \$); and
- a DORC of \$7.600 million (2007 \$) where straight line depreciation is used based on a 60 year asset life with an effective remaining life of 49 years.

The ICB for the DVP as at 1 July 2007 is \$7.600 million (2007 \$).

Depreciation

Anglo Coal has used the 'economic' depreciation approach to the DVP whereby depreciation is the balancing item required for the cost of service calculation to result in the total revenue which produces the proposed tariff path.

The accumulated depreciation of the DVP is set out in the table below:

Year ending 30 June	Depreciation (\$ million)
2007/08	-0.083
2008/09	-0.081
2009/10	-0.078
2010/11	-0.075
2011/12	-0.072
2012/13	-0.069
2013/14	-0.065
2014/15	-0.061
2015/16	-0.057
TOTAL	-0.641

Economic Life and Remaining Economic Lives

The original economic life of the asset is estimated to be 60 years based on the asset design and construction standard and gas reserves. As the asset was constructed in 1996, this leaves a remaining economic life in 2007 of 49 years.

Estimated and Committed Capital Expenditure

No capital expenditure is proposed over the life of the Access Arrangement.

Rate of Return

Anglo Coal adopted a weighted average cost of capital (**WACC**) approach as a guide to determining the appropriate rate of return for the DVP.

The rates of return to be used in the calculation of the price path for the DVP are a post tax nominal cost of equity of 11.97% and a nominal vanilla WACC of 9.08%.

These rates are based on:

- a nominal post tax cost of equity of 11.97%, which is based on a nominal risk free rate of 5.97%, an equity beta of 1.0 and a market risk premium of 6%;
- a nominal cost of debt of 7.15%, which is based on a nominal risk free rate of 5.97% and a cost of debt margin of 1.18%; and
- a capital structure of 60% debt, and 40% equity.

SECTION 4 – NON-CAPITAL COSTS: OPERATIONS, MAINTENANCE, OVERHEADS AND MARKETING

Estimates of non-capital costs have been developed by Anglo Coal for the nine years to 2016.

Operations and Maintenance Costs

Operation and maintenance activities for the DVP are performed by a mixture of Anglo Coal employees and contractors. The efficiency of the operating and maintenance costs for the DVP is discussed in section 6.

Operating and maintenance cost estimates are based on actual costs expected to be incurred over the Access Arrangement Period. There has been no allowance for contingency. There has also been no allowance for system use gas as the DVP is currently a free flow pipeline. If compression is added, system use gas will be provided by the Users.¹ Operations and maintenance costs are estimated in 2006 dollar terms and then escalated in line with inflation.

Direct labour costs are estimated to amount to \$116,000 per annum with direct materials costs of \$47,000. This gives a total estimate for direct operations and maintenance costs of \$163,000 in 2006/07 increasing to approximately \$217,000 in 2015/16 (assuming 3.2% inflation).

Direct operations and maintenance costs are not expected to vary with any change in throughput over the Access Arrangement Period.

Operating and maintenance costs are direct costs to Anglo Coal.

Overheads and Marketing Costs

The amount of general overheads incurred by Anglo Coal and Anglo Coal Australia Pty Ltd in maintaining, monitoring and administering the DVP, Access Arrangement and customers has been set at \$203,760 in 2006/07 increasing to approximately \$271,000 in 2015/16 (assuming 3.2% inflation).

This amount has been determined by the application of an industry 'rule of thumb' indicator of the total operating costs for pipelines as a percentage of replacement cost. The amount of \$203,760 in 2006/07 represents 4% of the replacement cost of the DVP minus an amount of \$163,000 in 2006/07 for direct operations and maintenance costs.

As the amount of general overheads which Anglo Coal is permitted to recover as part of the total revenue of the DVP has been set, there is no allocation of overhead and marketing costs between regulated and unregulated aspects of Anglo Coal's business.

¹ Clause 3.1 of Schedule 2 of the Access Arrangement

SECTION 5 – SYSTEM CAPACITY AND VOLUME ASSUMPTIONS

Throughput, Capex, Opex and Price Path

The DVP has a maximum design throughput of around 11PJ per annum. Throughput and cash flow projections over the economic life of the DVP are summarised in the table below for years 2007/08 to 2015/16. Unless specified otherwise, all financial information is in nominal dollars reflecting an expected inflation rate of 3.2%.

Throughput, Capex, Opex and Price Path

Year ending 30 June	Throughput (TJ/year)	Capital Expenditure (\$)	Operational Expenditure (\$)	Price Path Nominal (\$/GJ)
2007/08	2,920	0	378,441	\$0.329
2008/09	2,920	0	390,495	\$0.340
2009/10	2,920	0	402,932	\$0.351
2010/11	2,920	0	415,766	\$0.362
2011/12	2,920	0	429,008	\$0.373
2012/13	2,920	0	442,672	\$0.385
2013/14	2,920	0	456,772	\$0.398
2014/15	2,920	0	471,320	\$0.410
2015/16	2,920	0	486,332	\$0.423

The opening tariff is \$0.329/GJ with the Price Path thereafter to be linked to a CPI.

The system capacity of the DVP is outlined in section 1 of this Access Arrangement Information.

Map of DVP

A map of the DVP is attached as Attachment 1.

Map of piping system

A map of the piping system of the DVP is attached as Attachment 2.

Average Daily and Peak Demand

The estimated average daily and peak pipeline load for each year of the Access Arrangement Period are set out below:

Load and Volume	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Average Daily Load (TJ/d)	8	8	8	8	8	8	8	8	8	8
Peak Load (TJ/d)	8	8	8	8	8	8	8	8	8	8

System Load Profile by Month

The table below sets out the estimated monthly load profile for the DVP. It is based on historical monthly load data from 2006:

Month	% of total annual load
January	9.12%
February	8.10%
March	8.73%
April	8.42%
May	8.78%
June	8.05%
July	8.54%
August	8.40%
September	7.96%
October	7.83%
November	7.79%
December	8.29%
TOTAL	100.00%

SECTION 6 – EFFICIENT COSTS AND PERFORMANCE MEASURES FOR PIPELINES

The DVP is a relatively small pipeline with limited likelihood of significant load growth over the Access Arrangement Period. As such, throughput growth will necessarily be supply driven and the only opportunity for Anglo Coal to increase returns on the DVP will be through ensuring operating and maintenance activities are efficient and costs are minimised.

The following table compares the DVP with other transmission pipelines. The information presented has been prepared using information set out by transmission Service Providers in Access Arrangement documentation that has been provided as part of recent regulatory processes. All figures in the table are expressed in 2006 dollars:

	Riverland Pipeline	Mildura Pipeline	AGL Central West Pipeline	Tubridgi Pipeline	DVP
Financial Year	2000/01	2000/01	1998/99	1998/99	2006/07
Pipeline Details					
Length (km)	237	149	255	175	47
Predominant Diameter (mm)	100	100	150 and 200	250	163
Construction Material	steel	steel	steel	steel	steel
Construction Date	1995	1999	1998	1991-1993	1996
Total Non-Capital Costs excluding SUG (\$'000)	707	529	913	625	367
Performance Indicator					
Non-Capital Costs per 1000km (\$'000)	2,981	3,548	3,582	3,569	7,803
Non-Capital Costs as % of ORC	4.39%	N/A	N/A	2.55%	4%

Given the differences between the pipelines (with respect to size, length, capacity, usage, compression levels, remoteness, etc) it is difficult to draw any conclusions based on this data. Further, it is considered that DVP's non-capital costs are relatively fixed and would not vary with throughput or with an increase in pipeline length. As such, the short length of the DVP results in the pipeline exhibiting relatively high non-capital costs per km of length.

ATTACHMENT 1 – MAP OF DAWSON VALLEY PIPELINE

ATTACHMENT 2 – MAP OF PIPING SYSTEM OF DAWSON VALLEY PIPELINE