

Draft Recommendation

Application for Coverage of Eastern Gas Pipeline (Longford to Sydney)

May 2000

National Competition Council

Introduction

This document contains the National Competition Council's Draft Recommendation regarding an application for coverage of the Eastern Gas Pipeline under the provisions of the NSW and Victorian gas access regimes. The Eastern Gas Pipeline is currently under construction between Longford near Sale in Victoria and Horsley Park, in Sydney. It is expected that the Eastern Gas Pipeline will commence operation by September 2000.

The Council has engaged in wide public consultation in arriving at the views contained in this Draft Recommendation. The Council called for public submissions, met on a number of occasions with Duke and on one occasion with AGL, and obtained legal advice in respect of parts of its task.

The Council advertised for submissions on 21 and 22 January 2000 in *The Age*, the *Australian Financial Review*, and the *Sydney Morning Herald*. On two occasions, it advertised an extension of the date of release of the Draft Recommendation, and as part of this extended the date for submissions from 11 February to 17 March, and then to 31 March.

The Council received fourteen submissions (including one submission which was subsequently withdrawn). The parties that made submissions are listed in Appendix 1 (with the exception of the party that withdrew its submission).

In addition, the Council took into account legal advice received from Duke and AGL, as well as advice from the Council's legal representatives on the proper interpretation of the coverage criteria, and on whether the application was in order.

The Council's Draft Recommendation is the Eastern Gas Pipeline meets the criteria for coverage in respect of that part of the pipeline south of the off-take for the ACT. In respect of the remaining parts of the Eastern Gas Pipeline, the Council considers two likely approaches are to recommend against coverage at this time and monitor whether competition develops (favourably considering a future application for coverage if effective competition fails to develop), or to recommend coverage.

Following this introduction and the Executive Summary, comes the main body of the Draft Recommendation, which is divided into three parts.

Part A explains:

- the legislative background to the national gas access regime;
- the concept of coverage under the regime;
- details of the application, including specification of the relevant pipeline; and
- the process to be followed in deciding the application, focussing on what occurs after issue of this Draft Recommendation.

Part B examines the structure of the natural gas industry in Australia, and the state of competition in the NSW market.

Part C contains the Council's detailed consideration of the Eastern Gas Pipeline against the coverage criteria. The full text of the criteria are Appendix 2.

Parties are now invited to provide written submissions to the Council in response to this Draft Recommendation. Submissions will be taken into account in determining the Council's final recommendation.

Written submissions should be sent to:

Luke Berry
Policy Manager
National Competition Council
GPO 250B
Melbourne Vic. 3001

or emailed to luke.berry@ncc.gov.au (with a paper copy to follow) to reach the Council by **close of business, Tuesday, 6 June 2000.**

Abbreviations and glossary of terms

ABARE	Australian Bureau of Agricultural and Resource Economics
ACCC	Australian Competition and Consumer Commission
Access Arrangement	Arrangement for third party access to a pipeline approved by the relevant regulator under the National Code. Contains reference tariffs and terms and conditions governing services commonly sought by third parties
AGA	Australian Gas Association
AGL	The Australian Gas Light Company, or an associated company (with the exception of EAPL)
AGUG	Australian Gas Users Group
Bass Strait producers	Esso and BHP, the joint venture producers at the Gippsland Basin in the Bass Strait
COAG	Council of Australian Governments, constituted by the eight State and Territory Governments, and the Commonwealth Government
Cooper Basin producers	the SA Unit producers at the Moomba gas field in the Cooper Basin, and the producers in south West Queensland (including the producers in the Eromanga Basin which overlays the Cooper Basin) See definition of “SA Unit producers” below.
Council	National Competition Council
Covered Pipeline	a pipeline covered by the provisions of the National Code
CPI	Consumer Price Index
Duke	collective reference to Duke Eastern Gas Pipeline Pty Ltd, DEI Eastern Gas Pipeline Pty Ltd, and Duke Australia Operations Pty Ltd, or any one of these three companies

EAPL	East Australian Pipeline Limited, owner and operator of the Moomba to Sydney Pipeline. Jointly owned by AGL and Petronas.
EMRG	Energy Market Reform Group
FAC	Federal Airports Corporation
FERC	Federal Energy Regulatory Commission, the US regulatory agency charged with regulation of infrastructure including natural gas pipelines.
GJ	Gigajoule, a unit of energy used for measuring the energy content of natural gas or other energy sources
Gas Access Acts	The Acts in each State and Territory which provide for third party access to the services of gas pipelines. The Acts apply the GPAL and Code as law in those jurisdictions
GPAL	Gas Pipelines Access Law, which in conjunction with the National Code and the Gas Access Acts, set out provisions of the regime for third party access to the services of gas pipelines
(the) Interconnect	The pipeline between Wagga Wagga and Albury/Wodonga connecting the NSW and Victorian gas networks
IPA	Institute of Public Affairs
MPa	Megapascals, a measure of pipeline operating pressure
(the) National Code	National Third Party Access Code for Natural Gas Pipeline Systems
NCC	National Competition Council
NECG	Network Economics Consultancy Group
NIEIR	National Institute of Economic and Industry Research
Part IIIA	Part IIIA of the Trade Practices Act
PJ	Petajoule (equal to 1,000,000 GJ)

PL	Pipeline Licence
PIAC	Public Interest Advocacy Centre
SACL	Sydney Airports Corporation Limited
SIA	Sydney International Airport
SA Unit (producers)	South Australian Unit Producers, based at the Moomba gas fields in the Cooper Basin, and led by Santos. Approximate shares of participants in the SA Unit are: Santos 59.75 percent; Esso 20.21 percent; Boral 13.19 percent; Gulf 4.75 percent; and Cultus 2.1 percent.
TJ	Terajoule (equal to 1,000 GJ)
TPA	Trade Practices Act 1974 (Commonwealth)
Tribunal	Australian Competition Tribunal (formerly the Trade Practices Tribunal)

Executive Summary

Under the National Code, in determining whether to recommend coverage the Council must consider whether the relevant pipeline meets the criteria for coverage contained in section 1.9. The Council can only recommend coverage in respect of the Eastern Gas Pipeline where it meets *all* of the criteria.

Guidance in Interpreting the Coverage Criteria

The coverage criteria are closely modelled on the declaration criteria to be considered by the Council and designated Minister in section 44G(2) and section 44H(4). Authority on interpretations of the criteria for declaration are therefore relevant.

The 'Pipeline'

The application seeks coverage of the whole of the Eastern Gas Pipeline including its two laterals.

The Council may recommend coverage to the same extent or a greater or lesser extent than that described in the application, having regard to the part of the pipeline necessary to provide services that prospective users may seek.¹ Where the Council recommends that any part of a pipeline should be covered, it must be satisfied that this part of the pipeline meets each of the four of the coverage criteria.²

In the present fact situation, the Council considers that these criteria are best addressed by starting with criterion (b), followed by criteria (a), (c) and (d).

Criterion (b) that it would be uneconomic for anyone to develop another pipeline to provide the services provided by means of the pipeline.

The Council's approach to this criterion is to:

- define the services provided by means of this pipeline; and
- determine whether it would be uneconomic for anyone to develop another pipeline to provide these services.

¹ Section 1.7, National Code.

² Section 1.9, National Code.

The services of this pipeline

A literal interpretation of 'services provided by means of the pipeline' could mean that only the services exclusively provided by the Eastern Gas Pipeline could be considered. Such an interpretation would render this criterion circular if the services must be provided by the very facility in question.

The Council considers that, viewing this criterion in light of the objectives of the regime and the provisions of the Gas Code overall, the term 'services provided by means of the pipeline' in criterion (b) should include the services of other pipelines.

This raises the question of defining the services of the Eastern Gas Pipeline. There are two possible approaches to defining these services:

- first, by reference to the market or markets to which these services are provided and where competition may be promoted by access under criterion (a). This approach focuses on the promotion of competition in upstream/downstream markets as the main objective of the Gas Code. It would mean that any gas transmission services to or from the relevant market or markets under criterion (a) would be services for the purpose of criterion (b).
- second, by describing the service as a gas field to region, or point-to-point transmission service. This approach recognises:
 - that the objectives of the Gas Code also include the efficient development and utilisation of gas pipeline infrastructure,
 - that it is feasible to have pipelines with natural monopoly technology (that is, with developable capacity in excess of market needs with declining unit costs) supplying gas from different gas production fields into the same market;
 - that the Gas Code recognises that it is generally undesirable to develop more than one of these technological natural monopoly pipelines.

The Council considers that the second approach best meets the objectives of the gas access regime. This means, for example, that the Wagga/Albury Interconnect may provide relevant services for consideration under criterion (b), but that the Moomba to Sydney pipeline would not.

The Council considers, therefore, that the Eastern Gas Pipeline provides services involving the transport of natural gas from Longford to Sydney. These services include firm and interruptible haulage, interconnection, backhaul and linepack services between these locations. The Eastern Gas

Pipeline also provides services to regions other than Sydney, including the ACT and along the route of the pipeline to the south of the ACT.

The uneconomic to develop another pipeline test

The Council considers this test in terms of the associated costs and benefits of development for society as a whole.³ The test is thereby designed to identify those situations where, from the point of view of society as a whole, it is undesirable to have more than one pipeline providing the relevant services. In those situations the pipeline concerned may thereby constitute a 'bottleneck' to competition in related markets without access.

One question is whether existing pipelines providing the same services as the Eastern Gas Pipeline are relevant to the consideration of this test. The Council notes the use of the term '*develop* another pipeline' (rather than '*build*' or '*construct*' another pipeline). The Council considers that the term '*develop*' is broad enough to take account of existing pipelines and that such an approach best meets the objectives of the gas access regime.

In regard to relevant services provided by the Interconnect, the Council considers that this pipeline, and pipelines either end of the Interconnect, face capacity constraints such that it is unlikely to be able to provide relevant services. Further, the Council considers that, with the construction of the Eastern Gas Pipeline, it would not be economic to further develop the Interconnect and associated pipelines to provide the services of the Eastern Gas Pipeline.

In regard to the duplication of the existing AGL pipeline from Wilton to Horsley Park by the construction of the Eastern Gas Pipeline, the Council considers that:

- AGL's Wilton to Horsley Park pipeline will provide the relevant services in respect of this part of the Eastern Gas Pipeline, such that it could be said that it was economic to develop another pipeline to provide the services to be provided by this part of the Eastern Gas Pipeline;
- but that the duplication of AGL's Wilton to Horsley Park pipeline in fact constituted uneconomic development of the Eastern Gas Pipeline such that this part of the Eastern Gas Pipeline satisfies criterion (b).

Finally, the Council considers that it would be uneconomic to develop a new pipeline to provide the relevant services of the Eastern Gas Pipeline to any region along its route.

³ Australian Competition Tribunal, 2000, p. 78.

Criterion (a) that access (or increased access) to services provided by means of the pipeline would promote competition in at least one market (whether or not in Australia), other than the market for the services provided by means of the pipeline.

The Council's approach to this criterion is to:

- verify that the market or markets in which competition is said to be promoted is/are separate from the market for the service; and (if so) then
- determine if access (or increased access) would promote competition in this separate market or markets.

Delineation of the relevant other markets

The relevant other market must be delineated in terms of its product, functional, geographic and temporal dimensions.

The Council considers that the product dimension of the relevant other market is natural gas. While other energy sources, such as electricity, provide some competitive discipline on the sale of natural gas, the field of rivalry between these energy products is not so close as to integrate the markets.

The Council considers that the functional dimension of the relevant other market is sales between natural gas producers and users/consumers, including intermediaries and aggregators. There is some question whether there is a retail market separate from a wholesale market, but the Council does not consider that anything turns on this question.

The Council considers that the geographic dimension of the relevant other market is south east Australia. The Council notes that, in some regions, the delineation of the geographic dimension of the market turns on the availability of, and access to, pipeline infrastructure. Whether Coverage of a pipeline under the Gas Code is needed to ensure appropriate access and thereby integrate the geographic dimension of the natural gas market is a central question for the consideration of this criterion.

The Council considers that there are no particular issues going to the temporal dimension of the relevant other market on which consideration of this criterion is likely to turn. However, the Council recognises that relevant considerations include the possible future convergence of energy markets and the possible construction of other pipelines that will have an impact on this market.

The Council considers, therefore, that the relevant other market, separate from the market that includes the transportation services of the Eastern Gas Pipeline and where access to those services may promote competition, is the market for the sale of natural gas in south-east Australia.

The Council recognises that there may be other relevant markets, but has not been able to identify any such markets where this criterion may be satisfied.

Promotion of competition

The notion of promoting competition in this test involves the idea of creating the conditions or environment for improving the state of competition which would otherwise exist. Put another way, the Council must examine whether the opportunities and environment for competition with access to the Eastern Gas Pipeline are better than they would be without access.⁴

In applying the with and without test endorsed by the Tribunal, the Council compares the market conditions which would prevail if the pipeline were not covered under the National Code with those that would prevail if it were covered under the National Code.

In the Airports Decision, the Tribunal focused on the extent to which denial of access by SACL constituted a barrier to entry to freight handling markets. As there were no alternate sources of competition in these markets available, the removal of any barrier to use of the SACL facilities would promote competition in these markets.

By providing gas transmission services to regions where there are currently no means of supplying natural gas, access to the Eastern Gas Pipeline will remove a barrier to entry in the supply of gas to those regions, thereby promoting competition in the south-east Australian gas sales market.

The Council considers that criterion (a) is satisfied in relation to those parts of the Eastern Gas Pipeline south of the exit point for supplies to the ACT region.

In the Sydney and ACT regions of the gas sales market, the Moomba to Sydney pipeline provides an alternative source of gas supply to that of the Eastern Gas Pipeline. Whilst, in the Council's view, the services provided by the Eastern Gas Pipeline and the Moomba to Sydney pipeline are distinct, there is at least some competition in respect of the sale of natural gas in south east Australia.

⁴ Australian Competition Tribunal, 2000, p. 44.

However, the Council considers that the Eastern Gas Pipeline is likely to have market power in the gas sales market and that it is likely to be able to use that market power by restricting throughput in the pipeline and, as a consequence, charging higher prices than would otherwise be the case. Any exercise of this market power would constitute an impediment to entry and competition in the gas market. This market power, and the possibility of profitable exploitation, is likely to increase as surplus gas transmission capacity is dissipated by market growth.

Whilst recognising the potential for the exercise of this market power, the Council also considers that there is the prospect that the Eastern Gas Pipeline will behave in a competitive manner, pursuing market share and maximising gas throughput, especially in the short to medium term. Excess capacity in transmission services, the low short-run incremental cost of transmission services, and Duke's lack of interest in gas production and distribution are likely to be drivers for this potentially competitive behaviour.

The Council considers that it is difficult, on the information available, to determine whether access (or increased access) to the whole Eastern Gas Pipeline would promote competition in the market for the sale of gas in south east Australia.

One possible approach to this criterion involves the Council:

- recommending against coverage of the Eastern Gas Pipeline at and north of the off-take to the ACT region because the Council is not satisfied that access (or increased access) would promote competition;
- allowing time for the development of competition in the gas market without coverage under the National Code of the part of the Eastern Gas Pipeline serving Sydney and the ACT; and
- establishing arrangements to monitor the development of competition in the gas market, and favourably considering a future application for coverage if, after a reasonable period, effective competition in the gas market fails to develop.

The likely alternative to this approach is to consider that this criterion is met in respect of the whole of the Eastern Gas Pipeline.

Criterion (c) that access (or increased access) to the services provided by means of the pipeline can be provided without undue risk to human health or safety.

All evidence available to the Council suggests that access (or increased access) could be provided safely to the services of the Eastern Gas Pipeline. No submissions provided a contrary view.

The Council concludes that the pipeline meets criterion (c).

Criterion (d) that access (or increased access) to the services provided by means of the pipeline would not be contrary to the public interest.

Submissions to the Council identified two major public interest considerations in this matter:

- whether there is a public interest case for recommending against coverage under the National Code so that Duke can progress consideration of its Part IIIA Undertaking with the ACCC;
- a related consideration of whether there is a public interest case for regulating all gas pipelines in Australia under a common set of arrangements.

The Council notes that, in agreeing and implementing the national gas access regime, all governments have expressed support for a uniform set of arrangements for regulating gas pipelines. In addition, the Gas Code states that an Access Arrangement under the National Code is equivalent to a Part IIIA Undertaking, suggesting that, in the view of governments, an Access Arrangement under the National Code is the appropriate form of access regulation of gas pipelines.

The Council does not consider that there is a public interest case for allowing consideration of the Part IIIA Undertaking by Duke to proceed. To the contrary, the Council considers that there is a clear public interest case for any access regulation of gas pipelines in Australia to be conducted under the aegis of the National Code.

The Council also recognises that there is a public interest case for regulatory symmetry: that is, the equal treatment of participants, or businesses with interests, in the same market or markets.

However, the Council notes that:

- regulatory symmetry does not mean that all pipelines are treated exactly the same: Access Arrangements will vary according to circumstances. For example, the level of prescription in an Access Arrangement for a pipeline the owner of which has interests in related activities (such as gas distribution) may be appropriately different from an Access Arrangement for a fully vertically separated pipeline;
- it might be argued that, in some circumstances, no coverage under the National Code with the possibility (or threat) of coverage in the future is consistent with the principle of regulatory symmetry.

Conclusion

The Council concludes that the Eastern Gas Pipeline meets criteria (b), (c) and (d).

Further, the Council concludes that the part of the Eastern Gas Pipeline south of the exit point for supplies to the ACT region meets criteria (a).

Finally, the Council considers that it is difficult, on the information available, to determine whether the whole Eastern Gas Pipeline meets criteria (a).

One possible recommendation the Council will consider further involves:

- recommending against coverage of the Eastern Gas Pipeline at and north of the off-take to the ACT region because the Council is not satisfied that access (or increased access) would promote competition;
- allowing time for the development of competition in the gas market without coverage under the National Code of the part of the Eastern Gas Pipeline serving Sydney and the ACT; and
- establishing arrangements to monitor the development of competition in the gas market, and favourably considering a future application for coverage if, after a reasonable period, effective competition in the gas market fails to develop.

The likely alternative to this approach is for the Council to recommend coverage of the whole of the Eastern Gas Pipeline.

Part A – Coverage under the Gas Access Regime

Application for Coverage of the Eastern Gas Pipeline

On 7 January 2000, the Council received an application from AGL Energy Sales and Marketing Ltd (**AGL**) for coverage of the Eastern Gas Pipeline presently being constructed between Longford in Victoria, and Horsley Park in Sydney. On completion, it is expected the Eastern Gas Pipeline will transport natural gas from the gas processing facilities at Longford to Sydney (and points along the route). The Eastern Gas Pipeline could also transport gas southwards from Sydney towards Longford.

Construction of the Eastern Gas Pipeline started in August 1999, and is expected to be completed in time to enable the pipeline to commence operations by September 2000.

The route of the Eastern Gas Pipeline is illustrated in Diagram 1 below.

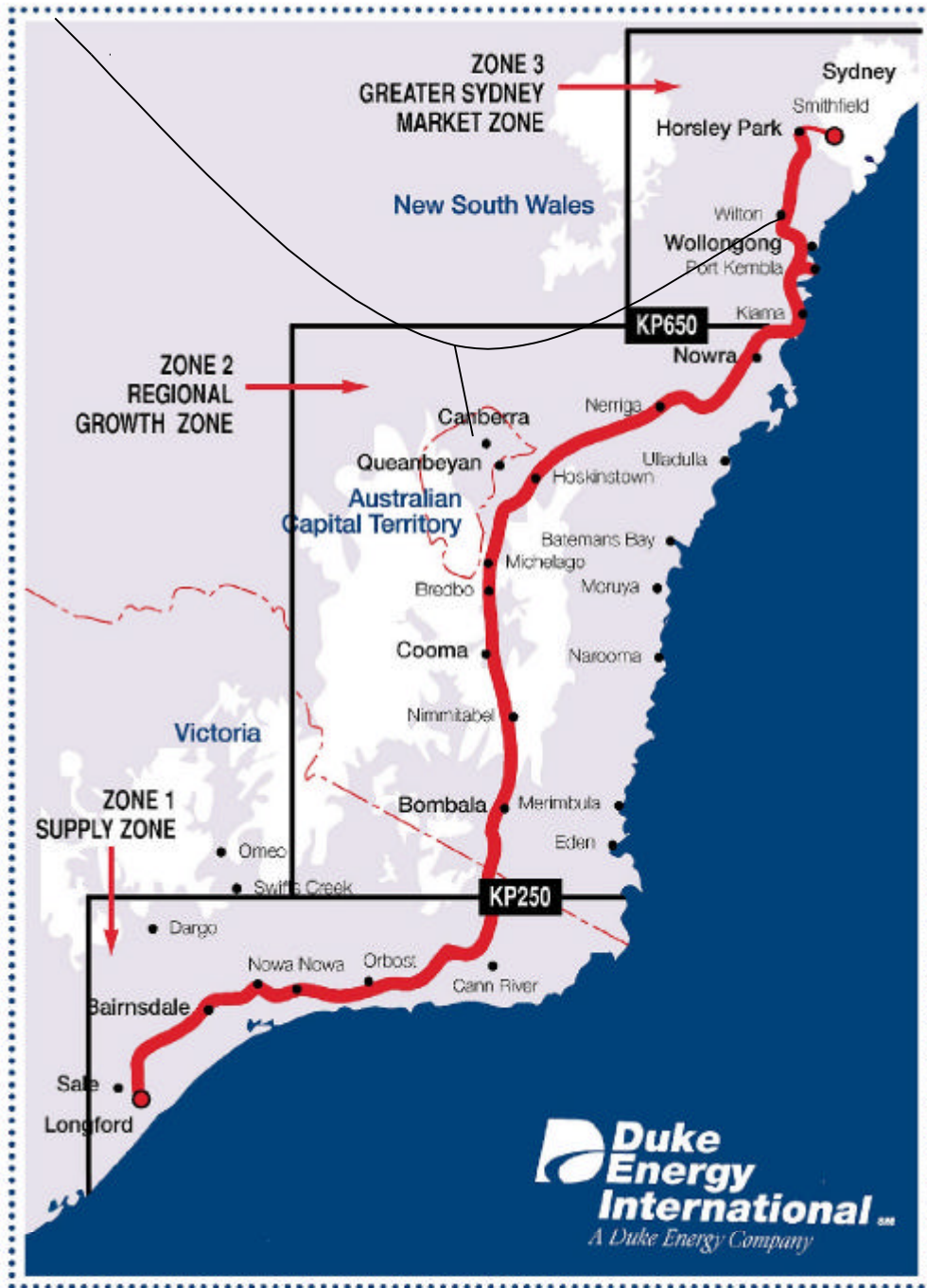
Duke challenged the validity of the application on the basis that construction of the Eastern Gas Pipeline had not yet been completed at the time the application was lodged. After consideration of submissions from Duke and AGL, and legal advice, the Council decided to accept the application for coverage and proceed to consider it. The reasons for the Council's decision to accept the application are set out at Appendix 3.

The joint owners of the Eastern Gas Pipeline are Duke Eastern Gas Pipeline Pty Ltd, DEI Eastern Gas Pipeline Pty Ltd, and Duke Australia Operations Pty Ltd (collectively referred to in this Draft Recommendation as **Duke**).

Duke Australia Operations Pty Ltd will operate the pipeline.

Diagram 1: Route of Eastern Gas Pipeline

EASTERN GAS PIPELINE SUPPLY ZONES



Source: Duke, 1999

Approximate route of Moomba to Sydney pipeline (including lateral to Canberra) indicated by thin line.

Table 1 summarises details of the Eastern Gas Pipeline.

Table 1: Pipeline for which Coverage sought

Pipeline Licence	Location/ Route	Future Operator	Length (km)	Pipe Diameter (mm)	Operating Pressure
PL 175 (Victoria)	Eastern Gas Pipeline Longford, Victoria, to Horsley Park, Sydney	Duke Australia Operations Pty Ltd	792	457mm	14.89 MPa
PL26 (NSW)			8	209mm	14.89 MPa
			8	209mm	14.89MPa

The primary source of gas for the Eastern Gas Pipeline, at least initially, will be gas collected in Bass Strait and processed at the gas processing facilities at Longford. In the longer term, the pipeline may carry gas from other places, perhaps via interconnected pipelines.

The Eastern Gas Pipeline will initially be able to transport approximately 55 PJ per annum of natural gas, with the ability to expand to carry a maximum of 110 PJ per year. (Duke 1999, p. 4)

A major source of demand for gas carried in the Eastern Gas Pipeline will be gas users in Sydney, and along the route of the pipeline. Again, in the longer term, the location of users supplied by the pipeline may change as the Eastern Gas Pipeline interconnects with other pipelines.

The Eastern Gas Pipeline will initially have significant uncontracted capacity. The Council understands from industry discussions that out of the current available capacity of 55 PJ per year roughly 35 PJ per year is presently contracted.

Undertaking by Duke Lodged with ACCC

Part IIIA of the Trade Practices Act (“**TPA**”) provides three forms of access regulation of natural monopoly facilities: under access regimes established by the States and Territories (explained further below); through

declaration of the services of those facilities; or under a voluntary Undertaking approved by the ACCC.

Duke opposes coverage of the Eastern Gas Pipeline under the National Code, and would prefer that the Eastern Gas Pipeline be regulated under an Undertaking provided under Part IIIA. To this end, it has lodged an Undertaking under Part IIIA, which is currently being considered by the ACCC.

Duke intends that its Undertaking should cover the terms and conditions on which it is prepared to offer access to the Eastern Gas Pipeline.

Duke's Undertaking proposes to offer three basic services: firm forward haulage; as-available haulage; and backhaul. It proposes to offer these services on a non-discriminatory basis at tariffs fixed (except for annual escalations at 75 percent of CPI) for 20 years. (Duke, 1999)

The firm forward haulage tariff is a single capacity reservation charge calculated on a zonal basis. The route of the Eastern Gas Pipeline is divided into three zones, and tariffs to any point within a zone are the same as to any other point within the same zone (see map of zones in Diagram 1 above). As at 1 January 1999, the tariff for transport from Longford to Zone one is \$0.30 GJ/day; to Zone two \$0.65 GJ/day; and to Zone three \$0.86 GJ/day. Points from Longford almost to the Victorian/NSW border are in Zone one; points north of this to Nowra are in Zone two; while points north from Kiama are in Zone three. Parties seeking firm forward haulage contracts must commit to a minimum one year contract. (Duke 1999, Schedule A)

Legislative Background to Coverage Application

NSW and Victoria have enacted gas access regimes to provide parties with a method for seeking access to the services provided by natural gas transmission and distribution pipelines located in those States.

The regimes are contained, respectively, in the *Gas Pipelines Access (NSW) Act 1998* (the **NSW Gas Access Act**), the *Gas Pipelines Access (Victoria) Act 1998* (the **Victorian Gas Access Act**). Additionally, the Commonwealth has passed the *Gas Pipelines Access (Commonwealth) Act 1998* (the **Commonwealth Gas Access Act**), to enable certain things to be done in support of the NSW and Victorian gas access regimes.

The NSW Gas Access Act and the Victorian Gas Access Act enact:

- the Gas Pipelines Access Law (**GPAL**); and
- the National Third Party Access Code for Natural Gas Pipeline Systems (the **National Code**).

Collectively, these Acts, the GPAL, and the National Code, form the national gas access regime as it applies in NSW and Victoria.

The national gas access regime is designed to facilitate negotiations between owners of natural gas pipelines and third parties interested in seeking access to the services of those pipelines.

The coverage process is designed to determine whether particular pipelines should be subject to the gas access regime. This involves an assessment of whether the pipeline exhibits monopoly characteristics, and whether access would promote competition in another market.

Classification of the Eastern Gas Pipeline

COAG Ministers are currently considering whether to classify the Eastern Gas Pipeline as a transmission or a distribution pipeline. This is necessary for the purposes of determining which Minister is responsible for deciding the coverage application.

If, as expected, the Eastern Gas Pipeline is classified as a transmission pipeline, then the Minister responsible for deciding on the coverage application will be the Commonwealth Minister, Senator, The Hon. Nick Minchin, Minister for Industry, Science, and Resources.⁵

Effect of Coverage

Where pipelines are covered, the owners/operators of the relevant pipelines must comply with certain obligations under the national gas access. The national gas access regime contains rules covering such matters as:

- the content and operation of Access Arrangements (Access Arrangements specify the terms, conditions, and prices on which owners/operators offer access);
- the information to be provided by owner/operators to interested parties;
- dispute resolution mechanisms; and
- pricing principles.

⁵ See the definition of relevant Minister in the National Code and the GPAL, and Annex G to the *Natural Gas Pipelines Access Agreement* made by COAG Governments in November 1997.

Mechanism for Coverage of a Pipeline

The National Code specifies the process for seeking coverage of a pipeline.

The National Code permits any party to apply for coverage. The party applies to the National Competition Council asking the Council to recommend coverage to the relevant Minister. On receipt of the Council's recommendation, the relevant Minister must then decide whether to grant coverage.

In reaching its recommendation, the Council is required to consider the criteria for coverage in section 1.9 of the National Code. Where it considers that a pipeline meets all the criteria in section 1.9, it must recommend coverage of that pipeline.

The Council's detailed assessment of the application against the criteria in section 1.9 of the National Code is contained in Part C of this document.

Coverage Process to be followed under National Code

The processes for dealing with coverage applications are specified in sections 1.2 to 1.19 of the National Code.

The first steps are an application to the Council for coverage, a call by the Council for submissions from interested parties, and the release of a Draft Recommendation by the Council. This is the point the process has currently reached.

Following release of this Draft Recommendation, the following steps will be taken:

- the Council will call for further submissions, to be received by **close of business, Tuesday, 6 June 2000**;⁶
- after consideration of further submissions and other matters, the Council will issue a final recommendation to the relevant Minister **Friday, 30 June 2000**;⁷

The Council may, by advertisement, further extend this date.

- the Council will provide copies of its final recommendation to relevant parties, including the owner/operator and any party who made a submission;

⁶ This date has been extended by notice advertised 9 May 2000.

⁷ This date has been extended by notice advertised 9 May 2000 in accordance with the extension provisions of the National Code.

- the Minister must make a final decision to grant or not grant coverage within 21 days of receiving the Final Recommendation;
- the Minister must provide copies of his decision and reasons to relevant parties, including the owner/operator and any party who made a submission.
- the Minister's decision (if it is to grant coverage) can take effect no earlier than 14 days after the date on which it is made.
- under section 38 of the GPAL, any person adversely affected by the Minister's decision may appeal. The appeal may be taken under either the NSW or Victorian Gas Access Acts. Both Acts specify the Australian Competition Tribunal ("**the Tribunal**") as the appeals body.

Part B – Background Information

Natural Gas Industry

Natural gas occurs in raw form in natural reservoirs. It is collected via gathering pipelines, and impurities are removed at processing plants. It is then transported by large capacity, high pressure transmission pipelines to final markets, where it is supplied directly to very large industrial users, or indirectly by small capacity, medium and low pressure distribution pipelines to commercial and residential users.

Transport costs normally represent a significant proportion of total delivered costs, but can vary widely depending on the difficulty of collecting the gas, and the cost of laying the transmission and distribution pipelines. For example, information for 1990/91 on the final price of gas delivered in NSW, Victoria, Queensland, and South Australia suggested that transmission prices represented perhaps 10 percent of final costs, while distribution prices represented around 40 and 50 percent of final price. (International Energy Agency (OECD), 1994, p. 16)

Natural gas is an important source of energy in the NSW energy market. In 1997-98, it accounted for 9.5 percent of total end-use energy consumption. 68.1 percent was used by industry, 15.7 percent by commercial enterprises, and 16.3 percent by residential customers. (NSW Ministry of Energy and Utilities, 1999b)

Apart from a very small amount of coal-seam methane, natural gas is not currently produced in NSW.⁸ Virtually all natural gas used in NSW is currently sourced from the Cooper Basin in South Australia,⁹ transported to Sydney and regional NSW via the Moomba to Sydney transmission pipeline, and distributed in Sydney through AGL's distribution network.

The Moomba to Sydney transmission pipeline supplies gas to Sydney and (through laterals) regional centres including Dubbo, Newcastle, Lithgow, Wollongong, and the Australian Capital Territory. In its current configuration, it has a capacity of about 172 PJ per year and currently supplies about 115.8 PJ per year to NSW. (EAPL 1999, pp. 8, 13)¹⁰

In August 1998, a gas pipeline interconnect (the “**Interconnect**”) was built between Wodonga in Victoria and Wagga Wagga in NSW, linking the Moomba to Sydney pipeline (through a lateral from Young to Wagga

⁸ Gas exploration is being carried on near Narrabri in the north west of NSW, where commercial quantities of gas may exist.

⁹ Around 95 percent in 1997-98: NSW Ministry of Energy and Utilities, *Energy in NSW 1999*.

¹⁰ TJ units converted to PJ units through multiplication by 365.25/1000.

Wagga) to Victorian natural gas networks and enabling gas to be transported in either direction between NSW and Victoria.

The Interconnect has an initial capacity of 20 PJ per year, expandable to somewhere around 70 to 90 PJ with additional compression and looping.¹¹ AGL has contracted to use the Interconnect to sell 13.7 PJ per year of natural gas from the Cooper Basin in Victoria. (EAPL 1999, p. 9)

The Victorian gas industry is significantly more developed than in NSW, with higher gas usage as a percentage of total energy consumption than other States.¹² Historically, about 98 percent of Victoria's natural gas requirements have been supplied by the Gippsland Basin in the Bass Strait, with the remaining two percent being supplied from the Otway Basin near Warnambool. (Victoria, 1999, p. 3) In 1998, developed gas fields in the Gippsland Basin held about 8083 PJ in gas reserves or roughly 9 percent of Australia's total gas reserves, with a further 548 PJ held in the nearby Otway Basin. (Petroleum Technical Advice Group, unpublished)

Gas from the Gippsland Basin is jointly produced and marketed by Esso and BHP.¹³

Gas collected in the Gippsland Basin is processed by Esso at Longford near Sale. Gas from the Longford plant is jointly marketed by Esso and BHP under long-term arrangements which are confidential in nature. These arrangements have been authorised by the *Gas Industry Act (Victoria) 1994* to exempt them from the competition provisions in Part IV of the TPA.

The Victorian Department of Treasury and Finance has reported:

In November 1996, new terms were agreed between Gascor and BHPP and Esso for the supply of gas from the Gippsland Basin. The new contract provides Gascor with gas supply through to 2009 or the depletion of the contracted quantities, whichever is the earlier. [Gascor was the Victorian gas distribution company, which has now been disaggregated into the three stapled Victorian distribution and retailing companies] (Victorian Department of Treasury and Finance, 1998, p. 63)

¹¹ NSW Ministry of Energy and Utilities, 1999b claims the Interconnect could be upgraded to around 90 PJ per year, while EAPL and the Gas Transmission Corporation of Victoria claim the Interconnect could eventually carry around 70 PJ per year.

¹² In the year ended June 1996 natural gas consumption in Victoria was about 258 PJ compared with 104.8 PJ in NSW: Victorian Department of Treasury and Finance, 1998, p. 57.

¹³ Joint production means the use of a shared production facility to process gas, and joint marketing involves both companies combining as a single entity to sell gas.

The gas supplied under this agreement provides a large portion of gas used in Victorian, but leaves some outstanding demand to be met by other supply arrangements.

Gas produced at Longford has supplied the Victorian market via the Longford to Melbourne gas transmission pipeline. Today, the Longford to Melbourne transmission pipeline is operated by GPU GasNet Pty Ltd. Three companies, Stratus, Westar, and Multinet, take gas from the GPU GasNet transmission system and distribute it through distribution pipelines within defined areas in Melbourne and Victoria.

State of Competition in NSW

The scope for competition in gas supply in NSW depends on factors including:

- the levels of ownership concentration at gas production, transmission, and distribution, and the degree of vertical integration of ownership;
- available capacity for the transport of gas, in particular uncontracted or spare capacity;
- existing long-term contractual arrangements; and
- regulatory arrangements that may promote or hinder competitive forces.

In NSW, significant market concentration exists at each of the production, transmission, and distribution levels.

Production is currently dominated by the South Australian Cooper Basin Unit Producers (**SA Unit**), a joint production and marketing vehicle which owns the gas fields at Moomba.

The Cooper / Eromanga Basin spreads from north east South Australia to south east Queensland. Most gas production is based near Moomba in the north east of South Australia. In recent years, production has commenced in the south West corner of Queensland, supplying Queensland and South Australia.

Following significant gas discoveries in the Cooper Basin between 1963 and 1966, the Moomba to Adelaide pipeline was constructed and began supplying gas to Adelaide in 1969. The Moomba to Sydney pipeline was constructed between 1973 and 1976 and gas supply to Sydney commenced late in 1976. (AGA, 1997, pp. 23-24)

Production in the Cooper Basin is dominated by Santos, with about a 60 percent interest in the production permits at the Moomba gas field, and the majority of the interests in the production permits in south West

Queensland (Australian Competition Tribunal, 1997a, pp. 51 – 52). Esso, through its subsidiary Delhi Petroleum, holds a 20 percent interest in the Moomba gas fields, while Boral holds about a 13 percent interest. (South Australian Department of Primary Industries and Resources, 2000).

The most recent figures on gas reserves are as at 31 December 1997, provided by the Petroleum Technical Advice Group of the Australian Geological Survey Office. According to these figures, the Cooper Basin currently holds about 5264 PJ in gas reserves, perhaps 5 percent of Australia's total natural gas reserves. (Petroleum Technical Advice Group, unpublished) At current rates of extraction, evidence from Santos provided to the Tribunal in March/April 1997 (as part of the hearings in the AGL/Cooper basin authorisation decision: Australian Competition Tribunal, 1997a) indicated that the Cooper Basin has little capacity to supply gas to NSW beyond the maximum 120 PJ per year that it has agreed to AGL under a contract expiring 2006.¹⁴ Beyond 2006 the Tribunal stated that on the evidence before it, the Cooper and Eromanga Basins had the capacity to supply “perhaps 15 % to 20 % of NSW demand for several years” (far less than the current 95 - 100 percent). (Australian Competition Tribunal, 1997a, p. 82 - 84) However, it is reasonably likely that by then fields in the NT, WA, or Queensland may have interconnected with the Cooper Basin or commenced supply to markets currently supplied by the Cooper Basin, enabling more gas to be transported down the Moomba to Sydney pipeline to NSW.

The Moomba to Sydney pipeline transports gas from Moomba to Sydney and NSW regional markets. It transported 111.7 PJ in calendar year 1998, and 115.8 PJ in 1999, (EAPL, 1999, pp. 11, 13) supplying more than 95 percent of NSW's requirements for those years. (NSW Ministry of Energy and Utilities, 1999b)

The Moomba to Sydney pipeline is currently owned 76.48 percent by AGL, and 23.52 percent by Petronas. AGL and Petronas are considering transferring their interests in the Moomba to Sydney pipeline into a publicly listed company, the Australian Pipeline Trust, in which AGL would retain a 30 percent interest and Petronas a 10 percent interest. (EAPL, 2000a)

Most of the capacity of the Moomba to Sydney pipeline is committed under the Gas Transportation Agreement¹⁵ between EAPL and AGL Wholesale Gas Pty Ltd. The Gas Transportation Agreement provides a comprehensive arrangement under which EAPL provides gas transmission services to AGL and facilitates the long-term take-or-pay arrangement

¹⁴ unless renewed for a period up to five years.

¹⁵ EAPL has applied for approval of a Gas Transportation Deed to apply in place of the Gas Transportation Agreement from 30 June 2000.

reached between AGL and the SA Unit for the SA Unit to supply gas through the Moomba to Sydney pipeline to AGL's distribution network in Sydney.

In the early 1970s, the Cooper Basin producers agreed to supply gas to AGL. The agreement provided that AGL should in each year take (or pay for and take at a later time) a certain amount of gas, for a total period of 30 years, expiring in 2006 (unless extended). (Australian Competition Tribunal, 1997a, p. 92) The take or pay clause provides that AGL must take or pay for a minimum of 80 percent of the total annual volume specified in the contract. AGL has in the past not required the minimum take-or-pay amount of gas, so that a significant amount of gas (which AGL has been required to pay for) has banked up. Under the take or pay clause, AGL may take this 'banked gas' for no charge for a period of up to five years after the expiration of the initial 30 years of the agreement. (Australian Competition Tribunal, 1997a, pp. 11 - 12)

The Tribunal in the AGL/Cooper Basin authorisation decision found that, by 1996, demand had risen above minimum take-or-pay amounts, leading to a reduction in the levels of banked supplies of gas. According to the Tribunal, "evidence from AGL and the [SA Unit] Producers agreed that no substantial quantity of banked gas is likely to remain undelivered after the contract period ends in 2006. (Australian Competition Tribunal, 1997a, p. 54)

According to EAPL's Access Arrangement Information lodged with the ACCC in June 1999, the Moomba to Sydney pipeline currently has the capacity to transport about 172 PJ per year (which could be expanded to more than 290 PJ per year with the addition of up to six compressor stations in addition to the current two).

In 1998, peak day deliveries under existing contracts totalled approximately 161 PJ per year, or about 94 percent of capacity.

On the segment of the pipeline between Moomba and Young, in 1998 only about 9.9 PJ per year of spare capacity was available for access by third parties. Capacity is less constrained in other parts of the Moomba to Sydney pipeline, such as between Young and Wilton. (ACCC, 1999a, p. 11)

EAPL expects that more spare capacity will be available as the take-or-pay contract with the Cooper Basin producers nears expiration, and banked gas is consumed. Over the period from June 2000, the level of available capacity will increase to 21 PJ per year by winter 2003, and to approximately 55 PJ per year by 2005. (ACCC, 1999a, p. 11)

EAPL also expects that the entry of the Eastern Gas Pipeline into the market will reduce demand for transport of gas on the Moomba to Sydney pipeline, freeing up additional spare capacity. (EAPL, 1999, pp. 11 - 12)

As a covered pipeline under the National Code, EAPL has recently submitted an Access Arrangement to the ACCC for approval specifying the transport tariffs for transport of gas to Sydney.

Under EAPL's proposed tariffs, it would cost \$708,452¹⁶ to transport 1 PJ per year of gas from Moomba to Wilton (20 km outside Sydney). This price is for firm transportation at 100 percent load factor.¹⁷ It is understood that the price of gas supplied by both the Cooper Basin and the Gippsland Basin is around \$2.35 to \$2.55 per GJ depending on the season and other economic factors.¹⁸

The Interconnect provides another way to transport gas to Sydney. However, it does not add significant capacity as gas flowing through the Interconnect must flow along part of the Moomba to Sydney pipeline to reach Sydney. In addition, capacity constraints on the Victorian side of the border make it difficult to supply more than about 6 PJ per year into NSW at current rates of compression and demand¹⁹ (more could be supplied with greater compression of the Victorian transmission system).

The Eastern Gas Pipeline will run from Longford to Sydney, directly connecting Bass Strait producers with users in Sydney. It will initially provide capacity to transport 55 PJ per year, with the ability to expand to a maximum capacity of 110 PJ per year. (Duke, 1999, p. 4)

Duke's Undertaking to the ACCC specifies the tariffs Duke is prepared to offer.

Under Duke's proposed tariffs, it would cost \$860,000 to transport 1 PJ per year of gas from Moomba to Wilton outside Sydney (compared with EAPL's tariff of \$708,452).²⁰ When deciding which pipeline to contract with, prospective users will also take into account differences in the price of gas supplied from the Bass Strait and the Cooper Basin.

¹⁶ Duke's submission says this represents a significant fall in prices since it submitted its draft Undertaking in November 1999. Before that, it says the tariff was about \$920,000.

¹⁷ Charges taken from EAPL Access Arrangement Information detailing tariffs to 1 July 2000. Calculations are: 1 PJ/year = 2.73785 TJ/day; Yearly capacity charge for firm or class FT service = 15.69*1299*12*2.73785 = \$669,612; Yearly commodity charge = 0.0299*1000*1299 = 38,840.

¹⁸ Gippsland Basin data is provided by the Vencorp homepage at vencorp.com.au. Cooper Basin data is confidential, but figures can be derived from Australian Competition Tribunal, 1997a, p. 45 where for 1993-94 "the average ex-field price for Cooper Basin gas sold to AGL ... was stated in public evidence to be \$2.21 per GJ".

¹⁹ According to GPU Gas Net Pty Ltd, which operates the Victorian gas transmission system, capacity to supply gas to NSW through the Interconnect depends on pressure in the northern Victorian system, which in turn depends on seasonal demand in Northern Victoria. Growth in demand in northern Victoria (approximately the area of the Victorian gas network north of the Melbourne city fringes) displaces approximately an equal amount of gas that can be supplied to NSW.

²⁰ This assumes firm transportation at 100 percent load factor. Charges taken from Duke Undertaking to ACCC. Calculations are: 1 PJ = 1,000,000 GJ. Single forward haul rate of \$0.86/GJ to Zone 3, which includes Wilton and Sydney. Tariff is: 1,000,000 GJ*0.86 GJ/day = \$860,000.

Following the entry of the Eastern Gas Pipeline, it will contribute approximately 55 PJ per year capacity for transport of gas to Sydney,²¹ while the Moomba to Sydney Pipeline will contribute approximately 172 PJ per year, resulting in total capacity for transport of gas to Sydney and places along the route of the two pipelines of about 226 PJ per year.

However, capacity constraints could arise well before the pipelines carry a combined total of 226 PJ per year. Gas usage fluctuates significantly during the day and according to the season. (International Energy Agency (OECD), 1994, pp. 34 – 35) These fluctuations can give rise to significant capacity constraints even where average usage does not exceed 226 PJ per year. In Europe, peaks in demand are met by drawing from gas storage reservoirs or linepack.²² However, since there are no gas storage reservoirs in NSW, and available linepack is limited, peaks in demand can only be met by building larger pipelines. Where average usage comes close to the maximum capacity of these pipelines, peak usage during particular times of the day or during certain seasons could be expected to cause significant capacity constraints.

The extent to which gas fluctuations will create capacity constraints depends on the size of the fluctuations, which depends in turn on the extremes of temperature experienced by a site of demand, and the percentage of consumption that is dependent on weather changes. In the case of Sydney, where temperature changes are not extreme, and residential consumption is only about 16 percent of total consumption, fluctuations could be expected not to be pronounced compared to places such as Europe where fluctuations can vary demand by a factor of over 2.5 times because of the extreme cold in winter-time. (International Energy Agency (OECD), 1994, p. 35) Vencorp reports monthly gas demand and sales for gas on the Victorian spot market. It reported fluctuations in daily demand in September 1999 between 0.455 PJ and 0.861 PJ, in daily demand in February 2000 between 0.283 PJ and 0.557 PJ, and in April 2000, between 0.356 PJ and 0.475 PJ, for a total range from the day of minimum demand to peak demand of 0.283 PJ to 0.861 PJ. Assuming the midpoint between these levels represents the average, then monthly peak demand is averaging 25.9 percent above average monthly demand, and the peak across the three periods is 34 percent above average. Another method of measuring the size of fluctuations is to compare monthly production at the height of summer (January) with production at the height of winter (August). On this basis, monthly production at Cooper Basin increased 21.4 percent from January to August, and monthly production at the Gippsland Basin increased 109 percent reflecting colder Melbourne weather, and greater variations associated with greater

²¹ Dividing 55 PJ per year over 365 days.

²² Linepack is temporary storage of gas in the pipeline which is not immediately needed. Pressures need to be maintained at particular levels, limiting the potential linepack.

residential use as a share of total use). (Australian Petroleum Production and Exploration Association, 1999)

Figures for quarterly gas production by basin produced by the Australian Petroleum Production and Exploration Association bear out clear seasonal patterns of much greater production and consumption of gas in winter months. (Australian Petroleum and Exploration Association, 1999)

At least three other reasons tend to limit available capacity to below 226 PJ per year:

- gas supplied to places along the route of the Eastern Gas Pipeline or the Moomba to Sydney pipeline reduces the carrying capacity of the pipelines by the time they reach Sydney. For example, the Moomba to Sydney pipeline is most capacity constrained on the section from Moomba to Young.²³ 226 PJ per year represents the capacity available to meet demand in Sydney and places along the way to Sydney from Moomba and the Bass Strait;
- where a user's demand is uncertain, they will need to reserve greater capacity than they need. For example, a factory may operate on a load factor of 85 percent, meaning it only uses 85 percent of reserved capacity (typical load factors are difficult to obtain). The Council notes that secondary trading and other arrangements can reduce underutilised capacity and increase load factors; and
- balancing and operational and safety requirements may reduce available capacity.²⁴

It is difficult accurately to forecast demand in Sydney. This is because demand projections tend to estimate aggregate demand across NSW and the ACT.

The Australian Gas Association (AGA) and the Australian Bureau of Agricultural and Resource Economics (ABARE) have produced forecasts of gas use in Australia, including NSW. The latest AGA study, completed in 1997, predicted demand in NSW and the Australian Capital Territory as per Table 2 below:

²³ On the section from Moomba to Young, the Moomba to Sydney pipeline reaches up to 94 percent of capacity, while on the section from Young to Wilton it reaches only about 70 percent.

²⁴ Changes in weather can also affect the transport capacity of pipelines. In summer, natural gas expands, reducing the transport capacity of a pipelines, while in winter, natural gas contracts. This may partially offset additional demand in winter.

Table 2: AGA modified estimates (1997) gas use NSW/ACT (AGA, 1997, lift-out)

Year	Demand in PJ
1995	100.9 (actual)
2000	148.3
2005	182.9
2010	218.2
2015	240.2
2020	258.0
2025	273.2
2030	292.5

The AGA advised that its latest forecasts of gas consumption in NSW come from a 1999 study by the National Institute of Economic and Industry Economic and Industry Research (NIEIR). (NIEIR, 1999) NIEIR's predictions of NSW gas consumption are contained in Table 3 below.

Table 3: NIEIR projections of NSW/ACT consumption (NIEIR, 1999, p. 42)

Year	Demand in PJ
1996-97	129.9
2004-05	165.7
2014-15	281.4

The latest ABARE estimates are contained in Table 4 below.

Table 4: ABARE forecasts of demand for NSW/ACT (ABARE, 1999, Table D)

Year	Demand in PJ
1995-96	107.8 (actual)
1999-00	142.0
2000-01	143.1
2001-02	154.8
2002-03	157.6
2003-04	160.4
2004-05	168.0
2009-10	179.5
2014-15	229.6

These forecasts exhibit significant differences, with a trend to more pessimistic forecasts of demand in recent times as the amount of gas consumed in electricity generation is revised down.

On these forecasts, and equating combined NSW/ACT demand with Sydney demand,²⁵ existing pipeline capacity of 226 PJ per year would be absorbed somewhere between 2010 and 2015. The Duke submission estimates existing capacity will meet requirements until around 2011. (Duke revised submission, p. 31)

In determining when capacity constraints are likely to arise based on existing available capacity, the point was made above that it would be inaccurate to equate total available capacity with total demand because of the extent of daily and seasonal peaks and troughs in demand.

If demand fluctuates, or when a user's predictions of its requirements are difficult to forecast (necessitating reservation of capacity above actual requirements and load factors less than 100 percent), then additional

²⁵ Equating Sydney demand with NSW/ACT demand is not unreasonable given the pipelines between them serve most of the NSW/ACT region, with some additional capacity offered by the Interconnect around Wagga Wagga and Griffith.

capacity is required above what is necessary to meet average demand. The amount of additional capacity required depends on the size of the fluctuations or errors in amount of capacity required.

In 1999 the Moomba to Sydney pipeline transported about 115.8 PJ, but reached about 94 percent of capacity in some parts of the pipeline (representing peak demand of 161 PJ), fluctuations above the average of about 40 percent might be expected (compared to average fluctuations in Europe of perhaps 130 percent).

Table 5 shows, for a system capable of transporting an average of 226 PJ per year, how various fluctuations can cause capacity constraints even where average demand is well below 226 PJ per year. For example, where peak demand fluctuates 40 percent above average demand, then a system capable of carrying 226 PJ per year could expect to experience some capacity constraints on average demand of 162 PJ per year. Average demand of 162 PJ per year is forecast to occur around 2005.

Table 5: Peak requirements

Height of Peak Demand Above Average Demand (as percentage)	Average Demand (In PJ)
0 percent	226
5	215
10	205
15	196
20	188
25	181
30	174
35	167
40	162
45	156
50	151

In conclusion, it appears that following the advent of the Eastern Gas Pipeline, NSW gas markets will continue to be highly concentrated at all three functional levels. There are high levels of ownership concentration at the production, transmission, and distribution levels, with effectively two joint venture producers (SA Unit and Santos in Cooper Basin / Eromanga Basin; Esso/BHP in Gippsland Basin), two transmission pipeline owners (EAPL - largely owned by AGL - and Duke), and one distribution pipeline company (AGL) operating in NSW.²⁶

There does appear, on the current configurations of the Eastern Gas Pipeline and the Moomba to Sydney pipeline to be excess transport capacity to Sydney. However, the amount of excess capacity, and the time taken for it to be absorbed by natural growth in the market is difficult to predict. A best estimate would suggest capacity constraints will emerge around 2010, although it is possible that peak seasonal demands might give rise to constraints as early as 2005.

²⁶ Great Southern operates the distribution system in Wagga Wagga.

Part C – Consideration of the Criteria under Section 1.9 of the National Code

Under the National Code, in determining whether to recommend coverage the Council must consider whether the relevant pipeline meets the coverage criteria in section 1.9. The Council can only recommend coverage in respect of the Eastern Gas Pipeline where it meets *all* of the criteria.

Guidance in Interpreting the Coverage Criteria

The coverage criteria are closely modelled on the declaration criteria in sections 44G(2) and section 44H(4) of the TPA.

These declaration criteria have been considered by the Tribunal in the Australian Union of Students decision, (Australian Competition Tribunal, 1997b) and the Sydney Airports decision. (Australian Competition Tribunal, 2000) The Council considers the Tribunal's decisions as authority on the interpretation of the coverage criteria.

The Council has also considered the overviews in italics at the commencement of each section of the National Code as contemplated by section 10.5 of the National Code.

In assessing the criteria, the Council considers it provides for greater clarity to examine criterion (b) first, then criteria (a), (c), and (d) in that order.

Criterion (b) that it would be uneconomic for anyone to develop another pipeline to provide the services provided by means of the pipeline.

Background

The rationale for the Victorian, NSW and Commonwealth Gas Access Acts and the National Code is that access regulation should be limited to infrastructure where competing facilities are not economically viable. As such, access regulation should normally be confined to infrastructure exhibiting *natural monopoly* characteristics – that is, where a single facility can meet market demand at less cost than two or more facilities. Such a facility is normally characterised by large up-front investment costs and low operating costs, resulting in economies of scale across a broad range of output – that is, as output increases, average costs per unit of output continue to decrease across the range of output sought by the market.

Apart from two differences, criterion (b) of the National Code copies the language in the declaration provisions in sections 44G(2)(b) and 44H(4)(b). The differences are that criterion (b) talks about whether it would “uneconomic” (as opposed to “uneconomical”) to develop another “Pipeline” (as opposed to another “Facility”) to provide the services.

The Council considers that nothing turns on the variation between “uneconomic” in criterion (b) and “uneconomical” in the declaration provisions. In support of this view, the Council notes that the Gas Reform Implementation Group, when it formulated the coverage criteria under section 1.9 of the National Code, indicated that they intended to replicate the words of section 44G.²⁷

The use of the word “Pipeline” in criterion (b) prevents the Council from considering whether a facility other than a pipeline could provide the services provided by the Eastern Gas Pipeline. Under criterion (b), the Council could not, for example, look at whether liquification of the natural gas and transport by ship might provide the service of gas transportation provided by the Eastern Gas Pipeline. By contrast, the words in the declaration provisions in section 44G and 44H are broader in that they contemplate consideration of the services of other types of facilities.

With this difference between criterion (b) and the declaration provisions in mind, the Council has sought guidance on the interpretation of criterion (b) from the decision of the Tribunal in the Sydney Airports decision.

In relation to the meaning of the word “uneconomical”, the Tribunal said:

... the uneconomical to develop test should be construed in terms of the associated costs and benefits of development for society as a whole. Such an interpretation is consistent with the underlying intent of the legislation, as expressed in the second reading speech of the Competition Policy Reform Bill [which inserted Part IIIA into the Trade Practices Act 1974], which is directed at securing access to “certain essential facilities of national significance”. This language and these concepts are repeated in the statute. This language does not suggest that the intention is only to consider a narrow accounting view of “uneconomic” or simply issues of profitability.

If “uneconomical” is interpreted in a private sense then the practical effect would often be to frustrate the underlying intent of the Act. This is because economies of scope may allow an incumbent, seeking to deny access to a potential entrant, to develop

²⁷ See GRIG Policy Paper on the National Gas Access Regime, p. 7, quoted in National Competition Council, 1997, p. 13.

another facility while raising an insuperable barrier to entry to new players (a defining feature of a bottleneck). The use of the calculus of social cost benefit, however, ameliorates this problem by ensuring the total costs and benefits of developing another facility are brought to account. This view is given added weight by Professor William's evidence of the perverse impact, in terms of efficient resource allocation, of adopting the narrow view. (Australian Competition Tribunal, 2000, p. 78)

Definition of 'Pipeline'

'Pipeline' is defined in the National Code and the GPAL as a pipe or system of pipes for transporting natural gas, and tanks, machinery, etcetra attached to the pipes, but does not include any facilities of the upstream processing plant, or anything downstream of the connection point to the consumer.²⁸

The application seeks coverage of the whole of the Eastern Gas Pipeline including its two laterals to Port Kembla and Smithfield. The Council has the power to recommend coverage to the same extent or a greater or lesser extent than that described in the application, having regard to the part of the pipeline necessary to provide services that prospective users may seek.²⁹ Where the Council recommends that any part of a pipeline should be covered, it must be satisfied that this part of the pipeline meets all of the coverage criteria.³⁰

It is clear that the Eastern Gas Pipeline including its two laterals is designed for the transportation of natural gas, and prospective users are likely to seek access to the whole of the services provided by the pipeline, including the services of its laterals. Consequently, for the purposes of this Draft Recommendation, the Council views 'Pipeline' as the whole of the Eastern Gas Pipeline, including its two laterals.

Services Provided by the Eastern Gas Pipeline

While it is the relevant pipeline, or a part of it, that is formally subject to coverage under the National Code, the coverage criteria focus on the "Services provided by means of the Pipeline". Interpretation and application of the criteria therefore require identification and definition of the relevant services provided by the Eastern Gas Pipeline.

Pipelines provide a number of distinct services, in particular, the transportation of natural gas. Access to the services of pipelines may also facilitate interconnection, backhaul arrangements, and linepack (discussed

²⁸ Section 2, GPAL read together with section 10.8 of the National Code.

²⁹ Section 1.7, National Code.

³⁰ Section 1.9, National Code.

below). The application for coverage of the Eastern Gas Pipeline appears to contemplate access to the service of transporting natural gas from Longford to Sydney and the ACT.

Service is defined broadly in the National Code to mean a service provided by means of a Pipeline including (without limitation) haulage services (such as firm haulage, interruptible haulage, spot haulage and backhaul), the right to interconnect with the pipeline, and ancillary services.³¹ Natural gas transportation services can generally be further classified into 'firm' or 'interruptible' transportation services. With 'a firm' transportation service, the user is guaranteed delivery of gas at all times, while with 'interruptible' services the pipeline operator reserves the right to interrupt the transportation service at any time (generally in times of peak demand). Interruptible services are accordingly less reliable than firm services and could be expected to be cheaper. Other gas transportation services offered by pipeline operators include off-peak summer services (typically the time of least demand for gas transportation services). Providing this range of firm, interruptible, and off-peak summer services enables the pipeline owner to maximise usage by the highest paying source of demand.

The Council considers that for the purposes of considering this coverage application, it is not necessary to define every possible type of gas transportation service. In its analysis the Council will concentrate on the firm transportation services to be provided by the Eastern Gas Pipeline as a representative transportation service.

Backhaul refers to arrangements for the supply of gas from a producer to a user in circumstances where the user is located upstream of the point on the pipeline where the producer can inject the gas. The user's requirements are actually met by gas diverted from another producer.

Interconnect is the right to join other pipelines with the relevant pipeline. Parties may be interested in interconnecting their pipelines with the Eastern Gas Pipeline to open up new supply possibilities for their regions.

Linepack is another service third parties may seek. However, linepack is typically sought by users to assist in balancing small fluctuations in their daily demand, and can therefore be viewed as a service ancillary to gas transportation.

Other Pipelines that could Provide the Services

The next issue is what other pipelines could be developed to provide the services provided by the Eastern Gas Pipeline.

³¹ Section 10.8.

On a literal interpretation of the term “services provided by means of the Pipeline” it would appear that the relevant “services” are limited to those exclusively provided by the pipeline the subject of the coverage application, in this case the Eastern Gas Pipeline. This has the potential to raise circularity problems because if consideration of the criterion is restricted to services provided by the Eastern Gas Pipeline, how could it ever be “economic” for anyone to develop another pipeline to provide those services. As a matter of definition, such services could only ever be provided by the Eastern Gas Pipeline.

An alternative approach is to regard the reference to “services provided by means of the pipeline” in criterion (b) as instead referring to the ability of another person to provide alternative services to the services provided by means of the Pipeline. This approach is consistent with the objective stated in the Introduction to the National Code to promote “a competitive market for natural gas in which customers may choose suppliers, including producers, retailers and traders”.

It is also consistent with the approach of the Tribunal in the Sydney Airports decision. The Tribunal held that “another” facility must be one capable of providing competing services to those provided by the relevant facility. Services which are merely complementary to those provided by the relevant facility will not be competing services for the purposes of this criterion.

The Council therefore considers the reference in criterion (b) to “services” should be interpreted as involving a consideration of whether it is uneconomic to develop another pipeline to provide an alternative service.

The next question is the extent to which other pipelines could be considered to provide the services provided by the Eastern Gas Pipeline.

The expressed objective of the National Code, as set out in the Preambles to the Gas Access Acts and also in the Introduction to the National Code is:

The objective of this Code is to establish a framework for third party access to gas pipelines that:

- (a) facilitates the development and operation of a national market for natural gas; and*
- (b) prevents abuse of monopoly power; and*
- (c) promotes a competitive market for natural gas in which customers may choose suppliers, including producers, retailers and traders; and*

- (d) provides rights of access to natural gas pipelines on conditions that are fair and reasonable for both Service Providers and Users; and*
- (e) provides for resolution of disputes.³²*

This objective can be distilled as:

- (a) to ensure efficient utilisation of monopoly pipelines;
- (b) to facilitate the efficient development of new pipelines; and
- (c) to promote competition in related markets.

A key aspect of the regime is therefore the identification and regulation of monopoly pipelines where:

- (a) the development of competing pipelines would be uneconomic (that is, inefficient); and
- (b) access would promote competition in a gas or other market.

Criterion (b) would appear to be designed to identify for potential coverage pipelines where the development of competing pipelines would be inefficient (Australian Competition Tribunal, 2000, p. 78). The intent is that competitive infrastructure (whether in actual or potential terms) is not be subject to coverage.

Assessing Geographical Element of Services

The next issue is whether, to be considered relevant transportation services, the transportation services provided by other pipelines would need to be provided over the same route as the transportation services of the Eastern Gas Pipeline.

There would appear to be two possible approaches.

The first approach would identify the relevant services with respect to the markets they serve, which are likely to be the markets where access to the services could be expected to promote competition. Thus, the Eastern Gas Pipeline would be said to provide a gas transportation service to serve the relevant market containing gas purchases in Sydney. The services in this case would involve the transport of gas to the relevant geographic market that includes Sydney. At present that service could be said to be provided by the Moomba to Sydney pipeline and the Interconnect.

³² quoted from the Introduction to the National Code.

The reasoning behind the first approach is that since one of the prime objectives of the National Code is to promote competition in relevant upstream and downstream markets, the approach to service definition should be all sources of competition in those relevant markets. This is best achieved by taking a broad approach to service definition. The fact that natural gas is homogeneous (as required under the National Code) might be said to support this broad approach.

However, merely because purchasers may be indifferent to the actual source of gas (because all gas is the same) does not mean they are indifferent to the identity of the seller. For example, a gas user in Sydney may be offered a supply under attractive terms by particular producers. In that case, the start and end points of the gas transportation service would be important considerations because only one pipeline might connect that gas user to those producers. On one view, this question turns on substitution possibilities between the services of different pipelines. But testing for such substitution between inputs to a downstream market can be difficult.

A second approach to defining the relevant services involves defining such services in terms of both the start and end points (or regions) of the service. On this approach the Eastern Gas Pipeline would provide a gas transportation service from Longford to Sydney. Following this approach, it might be possible to argue that the Interconnect provides the relevant service, but not the Moomba to Sydney pipeline.

There are other arguments to support the second approach to service definition.

First, it does not rely on the fact that gas is homogeneous. It is therefore more consistent with the application of access regulation in other industries. For example, it would not be possible to adopt a destination market approach to rail track services: the transport of people and goods is sensitive to origin and destination.

Second, the relevant downstream market may be so large as to render the transportation service meaningless. For example, if for the sake of argument the relevant gas sales market extends throughout the south east of Australia, then what would constitute the relevant service provided by the Eastern Gas Pipeline?

Third, the second approach to service definition is consistent with a view adopted by the regulatory authority in the United States, the Federal Energy Regulatory Commission (“**FERC**”). FERC defines the geographic market served by a pipeline with reference to the origin and destination of a pipeline and analyses the state of competition in the market served by the pipeline by considering competition in both the origin (upstream production) and destination (downstream gas usage) markets. FERC takes

this view because it considers the pipeline owner has the potential to exercise market power separately in relation to gas producers and users.

Finally, and perhaps most importantly, the second approach better supports the objectives of the Gas Access Acts. As discussed above, this means not only considering where access would promote competition in another market, but also identifying when access regulation may be needed to ensure efficient development and utilisation of pipelines, an important objective underlying criterion (b). Adopting the second approach best achieves these objectives.

An example illustrates why this is the case. Assume a gas sales market (M1) with current gas demand of 50 units per annum provided by a gas producer (G1) in gas field (F1) via pipeline (P1). P1 has a developable capacity (using compression and looping) of 200 units per annum with decreasing marginal costs. Assume another gas producer (G2) also wants to sell gas to M1 from F1. G2 wants access to P1 and clearly it would be uneconomic to develop another pipeline to provide the relevant services on any view.

But suppose that while G2 was seeking access to P1, another gas producer (G3) in another gas field (F2) was considering commissioning another pipeline (P2) to supply gas to M1 with the intention of supplying gas at low prices to expand overall sales in M1.

In light of the objectives of the National Code, should the potential commissioning of P2 lead to a different answer to the question of whether it would be uneconomic to develop another pipeline to provide the services of P1? The Council considers that the answer to this question is no: section 9.1(b) is designed to identify pipelines capable of meeting market demand with decreasing costs. P1 would only satisfy criterion (b) for coverage if a start/destination approach was adopted to defining the relevant services in relation to P1.

Of course, the potential supply by G3 into M1 would be relevant to the question under criterion (a) whether access to the services of P1 would promote competition in M1.

The Council concludes that the relevant services are the transportation of natural gas between Longford and Sydney, backhaul, interconnect, and linepack.

Application of the Criterion

The Council needs to consider whether it is economic to develop another pipeline that could provide the relevant services.

In considering this issue, the Council needs to consider whether it is appropriate to take into account not just the construction of *new* pipelines to provide the relevant services, but also *existing* pipelines.

The words “develop another pipeline” to provide the relevant services should be interpreted in the context of the objective of the legislative scheme. While one objective is to avoid inefficient construction of new pipelines, another objective is the regulation of monopoly pipelines to ensure efficient utilisation. The existence of another pipeline providing the same services as the pipeline which is subject to the coverage application is relevant to both objectives, but may be decisive in relation to the latter objective.

Therefore, the Council considers the objectives of the legislative scheme are best met by having regard to the provision of relevant services by another existing pipeline for the purposes of criterion (b).

The Council also considers that there is scope to interpret the words of criterion (b) in order to give effect to the objectives of the legislative scheme.

In reaching this view, the Council has taken a broad view of the word “develop” to connote “unfold more fully”, “bring out all that is contained in”, and “bring out from a latent to an active or visible state” (Shorter Oxford Dictionary). Taking into account whether existing pipelines can provide, or through enhancement could provide, the relevant services is also consistent with the objective of the National Code in ensuring the efficient utilisation of existing pipelines.

There would appear to be no problem in doing this where the other existing pipeline needs some enhancement (that is, development) to adequately provide the relevant services. This may be the case with the Interconnect.

Even where no enhancement of the other existing pipeline is necessary, the Council considers that there is sufficient latitude in the criteria to take account of such a pipeline. In forming this view, the Council notes that the Tribunal adopted an equivalent approach in forming the view that the use of the term “anyone” should not refer to owner of the infrastructure under consideration in order to give effect of the objectives of the relevant provision for declaration in Part IIIA of the Act. (Australian Competition Tribunal, 2000, pp. 76 – 77)

Accordingly, the Council has to take into account whether the Interconnect could provide the relevant services, even where this required some enhancement of the existing capacity of the Interconnect or other pipelines in the loop from Longford to Wagga Wagga to Sydney.

Another consideration in determining the range of pipelines that might provide the relevant services is the possibility that other pipelines might provide the services provided by part of the Eastern Gas Pipeline.

Section 1.7 provides:

If the NCC recommends that the Pipeline be Covered, the NCC may do so to a greater or lesser extent than requested by the applicant if, having regard to the part of the Pipeline that is necessary to provide Services that Prospective Users may seek, the NCC considers it appropriate ...

Section 1.7 grants the Council the discretion to recommend coverage of less or more of a pipeline than sought in an application for coverage where lesser or greater coverage is considered appropriate in order to provide the services sought by prospective users.

On this basis, the Council considers that it is appropriate to take into account the Wilton to Horsley Park pipeline owned by AGL distribution as possibly providing the services provided by means of part of the Eastern Gas Pipeline. This is because, once the Eastern Gas Pipeline is built, the two pipelines will run parallel between Wilton and Horsley Park.³³

New Pipeline between Longford and Sydney

Given the construction of the Eastern Gas Pipeline between Longford and Sydney, would it be economic to develop another pipeline to provide the gas transport services of the Eastern Gas Pipeline?

The answer to this question depends on the economics of pipeline construction.

Transmission pipelines typically exhibit natural monopoly characteristics that strongly curtail opportunities for construction of new pipelines. Some of the factors relevant to a consideration of whether it is economic to develop another new transmission pipeline between Longford and Sydney to provide the services of the Eastern Gas Pipeline are:

- whether there will be significant excess capacity in the Eastern Gas Pipeline;
- whether current and projected levels of demand are most cheaply supplied by the Eastern Gas Pipeline or another pipeline;

³³ The Wilton to Horsley Park pipeline performs the functions of a transmission pipeline. While it is currently classified under the NSW Gas Access Regime as a distribution pipeline, this is a transitional measure designed to ease any price shocks associated with the unwinding of cross-subsidies incorporated into tariffs between different classes of users, and from July 2000 it will be classified as a transmission pipeline.

- whether average and marginal costs of production per unit for the Eastern Gas Pipeline continue to decline for all likely levels of demand in Sydney and along the route of the Eastern Gas Pipeline;
- whether the costs of developing another pipeline to provide the transport capacity sought by third parties outweigh the costs of expanding the capacity of the Eastern Gas Pipeline to meet the third parties' needs while ensuring the owner/operator and existing users do not lose amenity; and
- the height of barriers to entry (such as large upfront costs of developing another pipeline, particularly costs that could not be recovered if the new investment were abandoned).

It is difficult to perform this analysis in view of the partially completed nature of the Eastern Gas Pipeline. Nonetheless the analysis is assisted by the fact that a number of the characteristics of the Eastern Gas Pipeline are fixed (such as its route and capacity).

On the basis of this information, it would appear that the Eastern Gas Pipeline, like many other transmission gas pipelines, will be characterised by high construction costs and low operating costs such that the marginal cost of transporting a unit of gas will be very low. Moreover, up to the point of fully expanded capacity in the Eastern Gas Pipeline, the average costs of transporting an additional unit of gas could be expected to decline. In lay terms, this means it will almost always be cheaper to transport gas through the Eastern Gas Pipeline (up to the point of full developable capacity) than it will be to build another pipeline to transport gas along the route of the Eastern Gas Pipeline.

Moreover, the high sunk costs of constructing another pipeline serve as a barrier to the entry of a new pipeline. 'Sunk costs' are those elements of an investment that are fixed or committed, and where, if the investment fails, little or none of the investment can be recovered. The presence of sunk costs also means that incremental or gradual entry – a common form of entry in other industries – is not feasible in transmission.

Finally, according to Duke, the Eastern Gas Pipeline will on its construction have significant spare capacity. (Duke submission, pp. 31 - 33) This will discourage other parties from building competing pipelines, because, generally, the greater the amount of available capacity, the less parties will be able to charge for any particular unit of capacity. Further, the Eastern Gas Pipeline can be expanded from 55 PJ per year to 110 PJ per year through additional compression, which Duke plans to do in the longer term. (Duke, 1999) The costs associated with this expansion are likely to be lower than the costs of building a new pipeline to provide such additional capacity. It could be expected that the threat of expansion of

the Eastern Gas Pipeline at a cost less than the cost of constructing a new pipeline would discourage other parties from investing in a new pipeline.

The Council concludes that it would not be economic for any party to build a new pipeline to provide the services of the Eastern Gas Pipeline.

The Interconnect

The Interconnect provides northbound capacity to transport gas from Victoria to NSW. Gas can be transported from Longford to Melbourne, Melbourne to Wodonga, then via the Interconnect to Wagga Wagga. After Wagga Wagga, the compressor station at Young is configured to permit extraction of some percentage of gas shipped northwards over the Interconnect into the Young to Wagga Wagga lateral for injection into the main pipeline leading to Sydney.³⁴ The IPA submission argues that gas travelling over the Interconnect currently provides modest competition in Sydney. (IPA, submission 1, p. 8)

On this basis, it appears at first sight that the presence of the Interconnect establishes that it may in fact be economic to develop another pipeline to provide the services of the Eastern Gas Pipeline, or at least the services of the Eastern Gas Pipeline associated with delivery of gas to Sydney.

In relation to transport of gas from Longford to Sydney via the Interconnect, the Council observes that:

- at present capacity on the Victorian side of the Interconnect is significantly constrained;
- the Interconnect cannot transport gas to some points along the route of the Eastern Gas Pipeline (clearly most points on the route of the Eastern Gas Pipeline south of Canberra); and
- NERA, in a report for BHP, observe that the pipes north of the NSW/Victorian border are owned by EAPL, and “[t]he more gas that flows into NSW through the interconnect, the lower EAPL’s revenue will be, as the revenue gain from the interconnect flow is less than the loss of revenue from the reduction in flow from the Cooper Basin.” (NERA, 2000, p. 6).

NERA also argue, *inter alia*, that the “[t]ransaction costs for the use of the Victorian system make up a large portion of shipping costs (i.e., up to half of pipeline charges)”, and this “effectively prevent[s] the existing Victorian pipeline network from being used to support the competitive sale of firm transport capacity to NSW”. (NERA, 2000, p. 7)

³⁴ Roughly two-thirds or about 4.4 PJ per year on current configuration.

The Council considers that this matter turns on whether it would be economic to expand the capacity of the Interconnect in response to an increase in the size of demand in the gas sales market. On the basis of the available evidence, in particular the presence of significant surplus and developable capacity on the Eastern Gas Pipeline, and capacity constraints on the pipes either side of the Interconnect, the Council considers that such an expansion would be unlikely to be economic in the foreseeable future.

The Council concludes that the Interconnect does not provide the relevant services nor it would not be economical to develop the Interconnect to provide the relevant services.

Wilton to Horsley Park Pipeline

The Moomba to Sydney pipeline terminates at Wilton where it supplies gas to a transmission pipeline operated by AGL distribution. This pipeline then runs from Wilton to Horsley Park in Sydney.

On construction, the Eastern Gas Pipeline will run parallel to the existing AGL from Wilton to Horsley Park, a distance of about 50 kilometres.

It may be argued that the presence of the two pipelines running in parallel to each other over the section from Wilton to Horsley Park establishes that it is economic to develop another pipeline to provide the services of the Eastern Gas Pipeline for that section.

If this argument were accepted, the Council might decide not to recommend coverage of the section of the Eastern Gas Pipeline from Wilton to Horsley Park.

However, the mere fact that two pipelines have been constructed side by side is not conclusive that it is economic to develop another pipeline to provide the services of the Eastern Gas Pipeline over this section from Wilton to Horsley Park. There are at least two possible explanations why the Eastern Gas Pipeline may have been extended to Horsley Park in circumstances where it was uneconomic to do so:

- Duke was unable to negotiate within a reasonable time what it considered a reasonable agreement for access to this section of pipeline, and accordingly constructed its own pipeline; or
- Duke decided for strategic reasons that it was worth building an additional relatively short section of pipeline to avoid relying on access to the services of a pipeline owned by a company affiliated with EAPL.

NERA's report for BHP argued that Duke was forced into the construction of a second pipeline by AGL's refusal to negotiate access:

Duke has had great difficulty in securing rights on [AGL's] trunk [i.e. transmission] network as a part of its Eastern Gas Pipeline ... project from the Bass Strait. Exasperated by [AGL's] stalling of the negotiations for capacity rights, Duke spent approximately \$28 million to effectively loop an entire segment of [AGL's] trunk network. (NERA, 2000, p. 9)

They quote a Bloomberg news release of 5 January 2000 by Duke that:

We [Duke] could not justify economically using AGL's assets [at the terms they were offering, and that will leave AGL's 50 kilometers of pipe] terribly underutilized (NERA's bracketed insertions) (NERA, 2000, p. 9)

NERA argue AGL had little incentive to permit Duke access on reasonable terms and conditions to its pipeline between Wilton and Horsley Park because AGL can pass on the costs of its pipeline between Wilton and Horsley Park to customers on the distribution network. In the view of the authors, the section of the Eastern Gas Pipeline between Wilton and Horsley Park represents "the most blatantly "uneconomic" bypass case we have witnessed anywhere in the world". (NERA, 2000, p. 10)

The Council concludes that:

- AGL's Wilton to Horsley Park pipeline will provide the relevant services in respect of this part of the Eastern Gas Pipeline, such that it could be said that it was economic to develop another pipeline to provide the services to be provided by this part of the Eastern Gas Pipeline;
- but that the duplication of AGL's Wilton to Horsley Park pipeline in fact constituted uneconomic development of the Eastern Gas Pipeline such that this part of the Eastern Gas Pipeline satisfies criterion (b).

Criterion (a) that access (or increased access) to services provided by means of the pipeline would promote competition in at least one market (whether or not in Australia), other than the market for the services provided by means of the pipeline.

Background

The rationale for this criterion is that access regulation is only warranted where access is likely to generate tangible benefits (for example, reduced prices, greater choice or improved quality) which will flow through to at

least one market beyond the market for the services of the particular gas pipeline.

Before it concludes that a pipeline meets this criterion, the Council must be convinced that:

- the service to which access is sought is not in the same market as the market or markets in which competition is promoted; and
- access would actually promote more competitive *outcomes* in that other market. Greater competition in another market will be less likely where that other market is already highly competitive, or where the other market is a monopoly (in the second case because cost savings are unlikely to be passed on to consumers).

The Council must also consider whether access charges are a sufficiently significant input into the other market or markets to have a material effect on competition.

The Council's approach is to:

- verify that the market or markets in which competition is said to be promoted is separate from the market for the service; and (if so) then
- determine if access (or increased access) would promote competition in this separate market or markets.

It is not necessary to precisely define the boundaries of all the possible markets, only to determine whether there are distinct markets. In considering the questions of market definition, the Council is guided by the work of the ACCC, the Tribunal, and the Courts in their consideration of market for the purposes of Part IV, as well as Tribunal and court consideration of Part IIIA.

Meaning of “Market”

The Tribunal has defined “market” in the following way:

A market is the area of close competition between firms, or putting it a little differently, the field of rivalry between them (if there is no close competition there is of course a monopolistic market). Within the bounds of a market there is substitution – substitution between one product and another, and between one source of supply and another, in response to changing prices. So a market is the field of actual and potential transactions between buyers and sellers amongst whom there can be strong substitution, at least in the

*long run, if given a sufficient price incentive. (Re Queensland Co-operative Milling Association Ltd (1976) 25 FLR 169 at 190)*³⁵

Dimensions of Markets

The Council considers the relevant dimensions of markets include:

- the product market, that is to say, the types of goods and services in a market. Product markets can be considered separate if their respective products are not substitutable in demand or supply. Products are substitutable in demand (and therefore in the same product market) if consumers will substitute one product for the other following a small but significant change in their relative prices. Substitution in supply occurs when a producer can readily switch its assets from producing one product to another.
- functional market. Functional market delineation focuses on the different steps in a production process. In defining functional markets, the Council has principally had regard to an approach raised by Professor Maureen Brunt (Brunt 1990) and developed by Professor Henry Ergas, (Ergas 1997, pp. 1 - 3) although it has also considered other relevant tests.³⁶ In essence, the Ergas test requires that the two following conditions be met in order that two markets to be regarded as separate at a functional level:
 - the layers at issue must be separable from an economic point of view (*economically separable*). This involves an assessment as to whether the transaction costs in the separate provision of the good or service at the two layers would not be so great as to prevent such separate provision from being feasible. In effect, to be in different markets, vertical integration must not be inevitable; and
 - each layer must use assets sufficiently specific and distinct to that layer such that the assets cannot readily produce the output of the other layer (*economically distinct*). In effect, supply side substitution must not be so readily achievable as to unify the field of rivalry between the two layers.

Markets may be functionally separate even though there is a *one for one* relationship, that is to say, perfect supply and demand side complementarity. A good example of this is rail track and train operations. However, where complementarity is associated with economies of joint production or consumption such that separate provision or consumption was not economically feasible, the services

³⁵ Adopted by the Tribunal in the Sydney Airports decision, paragraph 91.

³⁶ See, for example, the test of involvement and test of influence proposed in Smith and Walker, (1998).

will not be in functionally separate markets. (Australian Competition Tribunal, 2000, pp. 36 - 40)

- the geographic dimension of the market. This refers to the area covered by the market such as national, intrastate or regional markets. The reference to “other markets” in criterion (a) includes markets outside Australia.
- the temporal dimension of the market. This refers to whether the size and scope of the market is likely to change over time. The temporal dimension is particularly relevant where production technologies are continually changing. In order to determine the temporal parameters of markets, the Council generally has regard to long-run rather than short-run substitution possibilities.

Relevant Markets

In the AGL/Cooper Basin authorisation decision, the Tribunal heard an application for review of the ACCC’s decision to revoke authorisation of the AGL/Cooper Basin Producers’ Letter of Agreement. The Tribunal identified a number of gas industry markets that are relevant to the Council’s current consideration. The Tribunal stated that:

We find there are three product markets of relevance for this application. The first is natural gas, extending at the margin to encompass, at times, alternative and complementary energy sources, principally electricity. When we refer to the “natural gas market” it should be understood in this extended sense. Then there are two further product markets, the services of transmission and reticulation.

For the natural gas market, there are a number of functional dimensions to be considered: exploration and development (i.e. proving reserves); production and processing; and distribution.

The geographic dimension of the natural gas market has been expanding from NSW in 1986 to south east Australia (NSW, Victoria, South Australia and Southern Queensland) today (Re: AGL Cooper Basin Natural Gas Supply Arrangements (1997) ATPR 41-593, at 44,210-44,211).

In reaching this definition, the Tribunal assumed that the then prospective Interconnect and the Longford to Sydney pipeline would be constructed. The realisation of these assumptions means that the Tribunal’s market definitions have currency, even though they were formulated over three years ago.

In defining the 'natural gas market' the Tribunal considered the relationship between gas and electricity and their potential as substitutes for each other. It considered that, to some extent, the demand for gas related to the demand for electricity.

The price of electricity effects the price of gas on a number of levels. Firstly, when users are making decisions about asset purchases, the relative competitiveness of gas and electricity are considerations in determining what appliances or plant should be purchased. Secondly, because one of the uses of gas is as an input for electricity production, its price continues to be constrained by the price of electricity to some degree even after these investments are made.

The recent reforms in the electricity industry resulting in increased trade in electricity across states also affects the demand for gas, as states that traditionally have used gas fired generation purchase more electricity from states that rely on coal fired generation, and vice versa. The Tribunal heard evidence that ETSA (the South Australian electricity utility), by buying electricity from Victoria introduced a form of competition between Cooper Basin gas and Victorian electricity and made available surplus amounts of gas for resale.

While the Council considers that electricity can be a substitute for gas in some circumstances, and it can also provide some constraints on the price of gas, the Council does not consider that the field of rivalry is so close as to put them in the same market.

The Tribunal in the AGL/Cooper Basin authorisation decision considered that there were a number of functional levels to be considered in defining the natural gas market: exploration, production and processing and distribution. In using the term 'distribution' in this context the Tribunal meant gas sales, rather than carriage of gas through distribution pipelines. In examining the distribution dimensions, there is a question whether there are separate functional markets for wholesale sales of natural gas and for retail sales of natural gas.

The system of transmission pipelines currently operating, or soon to operate, in the south east Australian region, potentially enables gas producers in both Bass Strait and the Cooper Basin (South Australia and south West Queensland) to sell gas (in some cases through backhaul arrangements) in Adelaide, Sydney, Canberra, Melbourne, and regional areas of NSW and Victoria.

Users directly purchasing gas from producers are generally large industrial users, such as electricity generators, aggregators, or retailers. These wholesale purchasers would be expected to contract with the producers able to supply on the most favourable terms and conditions.

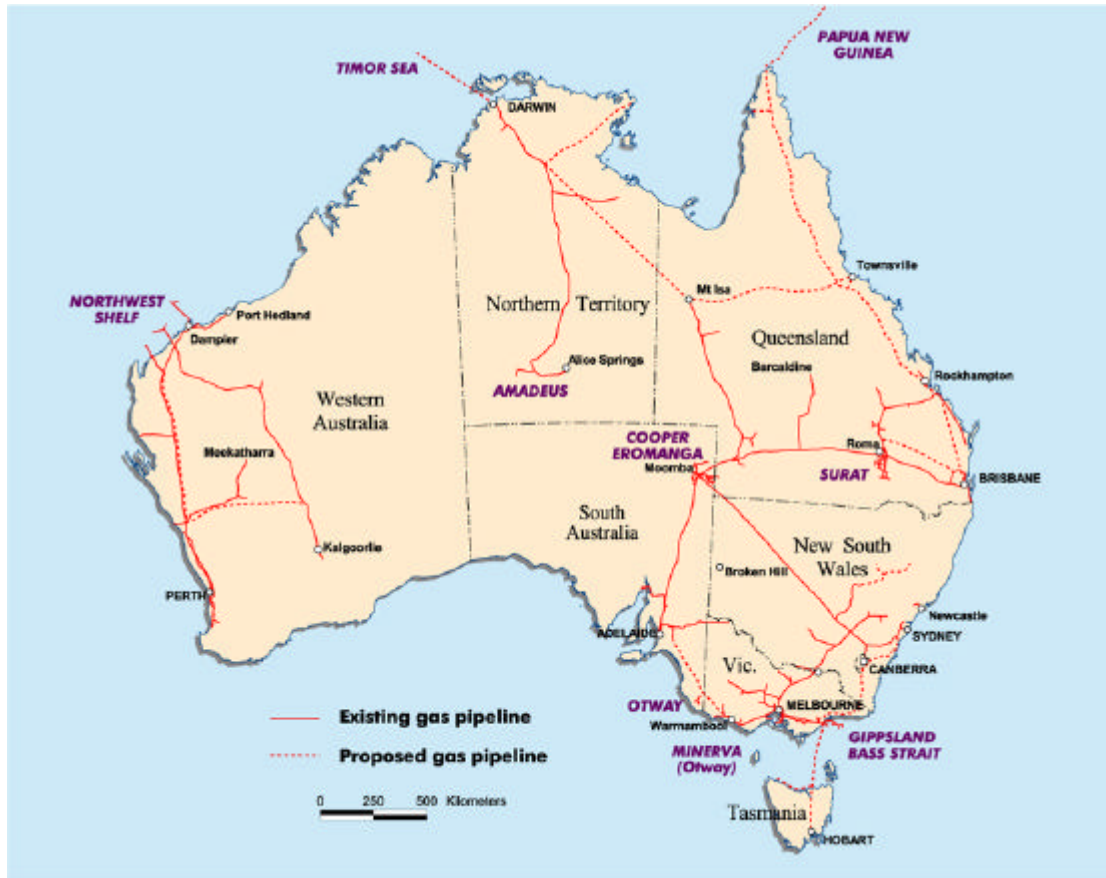
There is evidence to suggest that wholesale supply and retail supply are economically *separable*, i.e., transaction costs in the separate provision of gas at the wholesale or retail level are not so great as to prevent such separate provision from being feasible. The evidence the Council relies on is the current structure of the industry in Australia: gas wholesaling and retailing are conducted by different businesses, with little involvement in retailing by gas producers. While the historical structure of the industry may have been directed more by regulation and government policy than by considerations of efficiency, the removal of regulations and exclusive franchises and increased licensing of independent retailers supports the conclusion they are separable.

It is more difficult to determine whether the gas wholesale and retail markets are economically *distinct*. Both producers and retailers sell gas to large users, with some large users purchasing gas both directly from producers and through retailers. However, supplying gas to smaller users, including households, is dominated by retailers. It is not feasible for a small user to negotiate directly with producers. Retailers require customer service centres, billing systems, marketing and expertise in operating those functions as well as dealing with additional matters such as risk assessment and pricing for customers on short-term contracts with requirements for only small amounts of gas. While retailing requires particular assets and expertise, it is not clear that these are distinct from those required for wholesaling.

It is not possible for the Council, at this time, to be sufficiently certain that there are separate functional markets for wholesaling and retailing of gas. For the purposes of its consideration of the coverage criteria, the Council considers the market to be the supply and sale of natural gas, what the Tribunal referred to as the distribution functional dimension of the natural gas market.

Currently, gas transmission pipelines connect the Moomba processing plant to Adelaide, Sydney, Canberra, Melbourne and various NSW and Victorian regional centres. See Diagram 2 below.

Diagram 2: Natural Gas Pipelines in Australia



Source: South Australian Department of Primary Industries and Resources.

The Longford processing plant, which processes Bass Strait gas, is connected by gas transmission pipelines to Melbourne, regional Victoria, Sydney, regional NSW, and Canberra. Following the completion of the Eastern Gas Pipeline, Longford will also be connected to different areas of regional Victoria and NSW.

Since the completion of the Interconnect in 1998, the Bass Strait producers have for the first time been able to offer a limited amount of gas to the Sydney, Canberra and regional NSW areas, in competition with the Cooper Basin producers. Once the Eastern Gas Pipeline is operational, this potential will be greatly expanded.

The Council considers that this pipeline network gives the gas sales market a geographic dimension that encompasses south east Australia. This geographic dimension relies on the assumption that producers and users have access to the network of pipelines described above, on reasonable terms and conditions. This access has been, or will be, provided because either:

- the regulation of third party access to monopoly pipelines; or
- the pipelines would provide appropriate access of their own accord.

Regions that are supplied gas through a single transmission pipeline would not be included within the south east Australian gas sales market if restrictions on access to those pipelines reduce the potential for supply side substitution. Coverage of these pipelines ensures that regions are integrated into the field of rivalry for gas producers in south east Australia.

There are a number of other potential markets that may be affected by coverage of the Eastern Gas Pipeline. These involve gas exploration, processing and gas distribution. Each of these operations is conducted by separate businesses and through the use of separate and distinct assets and expertise.

It is likely that the market for gas exploration has a considerably wider geographic dimension than south east Australia, while the markets for gas processing and distribution are more regionally based. The Council does not consider it necessary to precisely define the boundaries of these markets as they are not central to its consideration. They may become more important in any future consideration of coverage of gas pipelines, especially if the gas supply market becomes more competitive.

Market for the services provided by the pipeline

The Council's task here is to determine if the relevant services are in the same or different markets from the one/s in which competition is likely to be promoted.

As discussed above, the Council considers that the Eastern Gas Pipeline provides gas transport, interconnect, backhaul, and linepack services related to the transportation of gas between Longford and Sydney.

The Council considers that the market in which these pipeline services are offered is separable from the market or markets in which gas sales take place.

First, the Council observes that different parties typically participate in the gas transportation and gas sales market/s. Gas producers sell gas and users buy gas without entering the gas transportation market. Second, the market in which the gas transportation services of the Eastern Gas Pipeline are provided involves the use of highly specialised pipeline facilities which are distinct from those required in the gas sales market or markets.

Test for Promotion of Competition

The Tribunal has provided some guidance on the meaning of ‘promote competition’. In the Sydney Airports decision, the Tribunal had to consider whether to declare the services of certain ground handling facilities at Sydney International Airport (SIA) to enable third party providers to offer ground handling services in competition with existing providers. The operator of the SIA, the Federal Airports Corporation (FAC), and its successor, the Sydney Airports Corporation Limited (SACL) opposed declaration. The FAC (and later the SACL) argued that a tender process for introducing another two or three ground handling entities at SIA would do as much or more to promote competition than declaration of the services of the ground handling facilities at SIA.

In considering section 44H(4)(a) of the TPA, on which the coverage criterion in criterion (a) of the National Code is based, the Tribunal made the following observations on the promotion of competition test:

The Tribunal does not consider that the notion of “promoting” competition in s 44H(4)(a) requires it to be satisfied that there would be an advance in competition in the sense that competition would be increased. Rather, the Tribunal considers that the notion of “promoting” competition in s 44H(4)(a) involves the idea of creating the conditions or environment for improving competition from what it would be otherwise. That is to say, the opportunities and environment for competition given declaration, will be better than they would be without declaration.

We have reached this conclusion having had regard, in particular, to the two stage process of the Part IIIA access regime. [Arguably mirrored in the two stage process of coverage and the submission of an access arrangement under the National Code] The purpose of an access declaration is to unlock a bottleneck so that competition can be promoted in a market other than the market for the service. The emphasis is on “access”, which leads us to the view that [section] 44H(4)(a) is concerned with the fostering of competition, that is to say it is concerned with the removal of barriers to entry which inhibit the opportunity for competition in the relevant downstream market. It is in this sense that the Tribunal considers that the promotion of competition involves a consideration that if the conditions or environment for improving competition are enhanced, then there is a likelihood of increased competition that is not trivial. (Australian Competition Tribunal, 2000, p. 44)

The Tribunal added:

The Tribunal is concerned with furthering competition in a forward looking way, not furthering a particular type or number of

competitors. In this matter, therefore, the Tribunal must be reasonably satisfied that declaration would, looking forward, improve on the competitive conditions in the relevant markets that are likely to exist as a result of the SACL tender process as compared with a situation where there was no declaration. (Australian Competition Tribunal, 2000, p. 44)

Competition With and Without Access

The first question that arises, in applying the with and without access test endorsed by the Tribunal (Australian Competition Tribunal, 2000, p. 69), is what are the with and without counterfactuals to be applied in this matter.

Duke argues that access regulated by coverage under the National Code should be set against access as governed by the terms of its Part IIIA Undertaking submitted to the ACCC. In effect, Duke submits that the Council should consider whether access under the National Code is more likely to promote competition in the gas sales market than access under the Undertaking.

A second approach is to compare likely market conditions with coverage under the National Code against likely conditions with no access regulation.

The Council sought legal advice on this issue. The Council was advised that it should take into account those market conditions which would prevail if the pipeline were not covered under the National Code, as compared with those that would prevail if it were covered under the National Code. In the absence of any Undertaking having been accepted by the ACCC, the terms and conditions of access offered by Duke in a proposed Undertaking are not relevant to consideration of those market conditions. If an Undertaking had been accepted by the ACCC, it might be that the market conditions existing if the pipeline were not covered would include the existence of that Undertaking.

This advice is consistent with the approach taken by the Tribunal in the Sydney Airports decision. (Australian Competition Tribunal, 2000, p. 69)

On this basis, the Council has adopted the second approach : to compare likely market conditions with coverage under the National Code against likely conditions with no access regulation. The Council discusses further the relevance of Duke's Undertaking under criterion (d).

Competition in Regional Areas

In the Airports Decision, the Tribunal focused on the extent to which denial of access by SACL constituted a barrier to entry to freight handling

markets. As there were no alternatives available in those markets to provide sources of competition, the Tribunal concluded that the removal of a barrier to the use of the SACL facilities would promote competition in those markets.

This is not always the case for natural monopoly infrastructure. In the consideration of declaration applications in relation to rail freight services, for example, the Council has examined whether access to rail track would promote competition in freight forwarding markets. This has involved taking account of road freight as a source of competition in freight forwarding markets.

Similar considerations apply in the current matter, except that the alternate sources of competition in the relevant downstream market are not intermodal, but other pipelines.

But these considerations don't apply in relation to all the Eastern Gas Pipeline services. While the Sydney and ACT regions served by the Eastern Gas Pipeline will also be served by the Moomba to Sydney pipeline, regions at some point south of the ACT served by the Eastern Gas Pipeline will not have access to gas supplies from any other source. This includes most of regional centres south of Canberra lying on or near the Eastern Gas Pipeline, including some Victoria centres.

In the absence of access under the National Code, the Eastern Gas Pipeline would be able to act monopolistically as the sole supplier of gas to these regional centres. Thus, access or increased access to the services of the Eastern Gas Pipeline would remove a barrier to entry in the sale of gas to these regional centres.

It may be argued that the possibility of backhaul opens the possibility of competition to these regional centres. However, in the absence of coverage under the National Code, pipeline owners may have little incentive to agree to backhaul. The Council therefore concludes that coverage under the National Code increases the likelihood of competition, because it provides for the possibility of backhaul to these regional areas .

Duke has suggested that coverage of part of the Eastern Gas Pipeline would be unworkable because:

- the intermediate “markets” are small compared to Sydney and the ACT;
- Duke intends to post prices for intermediate zones that are tied to the price for delivery in the Sydney region; and
- there are too many shared and common costs in the pipeline to attribute them to any segment of the overall pipeline. (Duke, submission 13, p. 4)

The Council does not find these reasons compelling, because:

- the intermediate regions are not small compared to other regions served by pipelines subject to coverage under the National Code;
- there can be no assurance that Duke's current pricing policy for the intermediate regions is appropriate, or even that it will endure, especially if there is rigorous competition in gas sales in Sydney and the ACT; and
- the attribution of costs shared by different services is a common issue in access regulation, especially where as envisaged in the National Code, only part of a pipeline is covered.

The Tribunal has recognised that the promotion of competition “involves the idea of creating the conditions or environment for improving competition from what it would be otherwise”. (Australian Competition Tribunal, 2000, p. 44) Where there are structural impediments to competition, and no alternate sources of competition, removal of the impediments is likely to promote competition, even though the actual increase in competition may not be large. By providing gas transmission services to regions where there are currently no means of supplying natural gas, access to the Eastern Gas Pipeline will remove a barrier to entry in the supply of gas to those regions, integrating these regions into the broader south east Australian gas sales market, and thereby promoting competition in that market.

The Council considers that criterion (a) is satisfied in relation to those parts of the Eastern Gas Pipeline south of the exit point for supplies to the ACT region.

Competition in the South East Australian Gas sales market

Evidence before the Council is equivocal as to whether access to services provided by means of the Eastern Gas Pipeline at, and north from the take-off point for services to the ACT, would be likely to promote competition in the south east Australian gas sales market. Some evidence suggests that EAPL and Duke will have strong incentives to engage in collusive behaviour.³⁷ This behaviour, in turn, is likely to impose barriers to entry to the gas sales market.

However, there is also evidence that the owners of the Eastern Gas Pipeline and the Moomba to Sydney pipeline might seek to maximise throughput of gas, at least in the period immediately following entry by

³⁷ The possibility of which both Duke and EAPL recognise in their submission: Duke, submission 11, p. 40; EAPL, submission 10, p. 2 – 3.

the Eastern Gas Pipeline. Such behaviour would be likely to promote vigorous competition in the gas sales market.

This conflicting evidence appears to turn on the question of the likely incentives facing Duke before and immediately following commissioning of the pipeline. In turn, these incentives are likely to be substantially determined by whether Duke is able to exert market power in the gas sales market, by influencing entry and sales volumes by suppliers in that market. Without market power, Duke is likely to seek to maximise the throughput of the Eastern Gas Pipeline by pricing transmission services at a low level to ensure that Bass Strait gas is available at competitive prices.

Several factors mitigate against the contention that the Eastern Gas Pipeline has market power:

- First, Duke has no interest in gas production or distribution services, (although Duke will have some affiliate interests in gas marketing through Duke Energy Australia Trading and Marketing), reducing its interests and influence in the gas sales market.
- Second, there will be some surplus transmission capacity to supply the gas sales market for at least several years. This will tend to encourage pricing down to short-run incremental cost during this period.

On the other hand, a number of factors suggest that the Eastern Gas Pipeline will have market power in the gas sales market:

- First, the strategic position of the Eastern Gas Pipeline supplying Sydney from a larger Basin. It is possible that the depletion of the Cooper Basin over the next ten years or so will discourage the Cooper Basin producers from competing vigorously with the Bass Strait producers for market share. This would boost the Bass Strait producers' share of Sydney sales, and strengthen the market power of the Eastern Gas Pipeline. The Council has discounted this consideration to some extent because the depletion of the Cooper Basin is reasonably far off, more reserves may be discovered, and because within ten years it is possible that pipeline interconnections between Moomba and gas fields in the NT, Queensland, WA or PNG may replenish reserves.
- Second, the ability of the Moomba to Sydney pipeline to respond in the short to medium term will be constrained by its available capacity and pre-existing contractual commitments at established tariffs. In its current configuration, the Moomba to Sydney pipeline has little spare capacity to sell to users in response to the entry of the Eastern Gas Pipeline, and has significant pre-existing contractual commitments. Having said this, the Council notes that EAPL could increase the

capacity of the Moomba to Sydney pipeline by the addition of extra compressors and/or looping where such options remained economic following the advent of the Eastern Gas Pipeline.

- Third, with only two sources of competition in the gas sales market, via the Moomba to Sydney and Eastern Gas Pipelines, there is scope for some form of explicit or tacit collusion between the two pipeline owners which is beyond the reach of Part IV of the TPA.

In view of these factors, any scope for non-competitive behaviour is particularly important. According to a report prepared by NECG, and submitted on behalf of EAPL as part of EAPL's application for revocation of its Moomba to Sydney pipeline (and two other pipelines), there are several features of the Moomba to Sydney pipeline and Eastern Gas Pipeline businesses which provide incentives for collusion:

- *As there are only two pipelines, and pipeline pricing is relatively transparent (particularly if one or both pipelines is covered by the [National] Code), monitoring by either party to a pricing agreement would be relatively easy.*
- *Given the huge disparity between current prices (which are near average costs) and marginal costs, the consequences for either pipeline of a price war, where price is driven towards marginal cost, would be disastrous.*
- *The contractual framework for gas purchase, transmission, distribution and sale to end users is complex, with medium to long-term contracts common and significant take or pay components to contracts at several stages. A gas retailer wishing to switch from one pipeline to another would face the necessity of also switching sources of gas supply from Moomba to Longford, or visa versa. These contractual complexities may make it more difficult for one pipeline to suddenly to drop its price and rapidly pick up market share.*
- *The pipelines' customers are likely to shop around for the best price and would in the process keep each pipeline informed of what pricing is being offered by its competitor.*
- *The features noted above would assist the formation of either explicit or tacit collusive pricing, albeit on a relatively unstable basis. Therefore, while collusion appears unlikely, it cannot be ruled out as a future possibility in the absence of some of price regulation. (EAPL, 2000b, p. 13)*

If the most important source of market power for Duke in the gas sales market is the prospect of some form of collusive behaviour with EAPL,

then an important question is whether access regulation is an effective way of dealing with the risk of collusion.

The Impact of Information Disclosure

Several submissions suggested that the information disclosure requirements of the National Code would promote possible collusion between pipeline owners, and thereby undermine rather than promote competition in the gas sales market. The NECG report attached to EAPL's third submission argued that:

- *Under the [National] Code the two owners will have both the motive and the opportunity to avoid meaningful price competition.*
- *The motive is provided by the recognition that in a pipeline context, cutthroat Bertrand competition may develop, which would see prices fall to levels far below either pipeline's average cost of service.*
- *The opportunity to avoid meaningful competition is provided by the elaborate cost-price disclosure which is mandatory under the [National] Code. This transparency will greatly facilitate tacit price collusion between the pipeline owners, by permitting the competitors to compare cost structures, demand forecasts, and other information relevant to pricing strategy. (EAPL, submission 10, p. 8)*

In principle, the information disclosure requirements of the National Code might assist collusion by facilitating signalling between the parties of their intentions.

However, it is not clear that the information disclosure requirements of the National Code are likely to damage competition in this way.

First, the regulator (in this case the ACCC) has some discretion over the type of information that is released in conformity with the mandatory disclosure provisions governing pricing, cost and pipeline capacity information. If the ACCC considered that disclosure would be likely to lead to anti-competitive outcomes, it could exercise its discretion in the way in which this information requirement was met.

Second, the minimum information required in the various pipeline management, services and trading policies is not high, and does not appear to be of a nature that would facilitate collusion between pipeline owners.

Third, the information disclosure provisions may facilitate greater scrutiny of prices thus making it is easier for the regulator and the market to detect collusion.

The Council considers it is unlikely the information disclosure will have the effect suggested by NECG.

Other Costs of Coverage

Some submissions suggested that coverage under the National Code would reduce incentives to offer innovative service and price options. (e.g. Energy Australia, submission 2, p. 4; Duke, submission 11, pp. 36 – 37; EAPL, submission 10, p. 8) The Council doubts this is the case: the National Code retains considerable flexibility for parties to construct such options. This issue is discussed further in criterion (d) in the context of assessing the range of costs associated with coverage.

Conclusion

The Council concludes that the part of the Eastern Gas Pipeline south of the exit point for supplies to the ACT region meets criteria (a).

The Council considers that it is difficult, on the information available, to determine whether the whole Eastern Gas Pipeline meets criteria (a).

One possible recommendation the Council will consider further involves:

- recommending against coverage of the Eastern Gas Pipeline at and north of the off-take to the ACT region because the Council is not satisfied that access (or increased access) would promote competition;
- allowing time for the development of competition in the gas market without coverage under the National Code of the part of the Eastern Gas Pipeline serving Sydney and the ACT; and
- establishing arrangements to monitor the development of competition in the gas market, and favourably considering a future application for coverage if, after a reasonable period, effective competition in the gas market fails to develop.

The likely alternative to this approach is for the Council to recommend coverage of the whole of the Eastern Gas Pipeline.

Criterion (c) that access (or increased access) to the services provided by means of the pipeline can be provided without undue risk to human health or safety.

Background

The rationale for this criterion is that the National Code should not be applied to pipelines where access or increased access may pose a legitimate risk to human health or safety.

Analysis

The Council did not receive any submissions to the effect that access or increased access could *not* be provided safely to the services of the Eastern Gas Pipeline. This is consistent with the Council's experience in relation to a number of applications seeking revocation of coverage of pipelines, where safety concerns were not raised to support revocation.

The national gas access regime contemplates the provision of access to pipelines throughout Australia under Gas Access Acts in each State and Territory. The Council is not aware of any instance where safety concerns have been raised in relation to access or increased access to the services of pipelines. No evidence has been raised to suggest that safety would be a particular concern in relation to the provision of access to the services of the Eastern Gas Pipeline.

NSW and Victoria have passed regulations dealing with the safe operation of gas pipelines. The Council is confident that any safety issues arising from access to the Eastern Gas Pipeline are appropriately dealt with through these safety regulations.

The Council concludes that access (or increased access) could be provided safely to the services of the Eastern Gas Pipeline, and that the pipeline meets criterion (c).

Criterion (d) that access (or increased access) to the services provided by means of the pipeline would not be contrary to the public interest.

Background

In coverage matters, the Council considers whether access to a pipeline is contrary to the public interest. The Council adopts a broad view of the types of matters that may raise public interest considerations, including the effect access might have on the environment, regional development, and equity.

Previously, the Council and the relevant Minister have taken into account the costs of regulation under the National Code compared with the

benefits delivered by regulation. (See, for example, National Competition Council, 2000). In making this assessment, the Council has taken into account both the direct and indirect costs and benefits of access.

Analysis

Submissions to the Council did not focus in any detail on the issue of direct costs or benefits of access or increased access. Instead they raised the following issues:

- the policy arguments for regulation under the National Code compared to regulation under an Undertaking, including the effect of regulation under the National Code on new investment, tariff innovation, and entrepreneurial risk-taking;
- whether Duke's Undertaking does more to promote competition than coverage under the National Code;
- the policy arguments for and against symmetrical regulation of the Eastern Gas Pipeline and the Moomba to Sydney pipeline; and
- the adequacy and desirability of information disclosure arrangements under the National Code.

Policy arguments for regulation under the National Code compared to regulation under an Undertaking

The submissions from the Western Australian Office of Energy, the South Australian Office of Energy, and PIAC supported coverage to ensure regulatory consistency, to discourage forum shopping, and to promote a uniform national framework. They argued that COAG had developed the National Code to ensure a single uniform regulatory framework for third party access to the services of pipelines.

On the other hand, submissions from Energy Australia, Duke, and the IPA criticised elements of the National Code, arguing that the National Code was ill-equipped to regulate "entrepreneurial" pipelines such as the Eastern Gas Pipeline. Duke argued that the National Code stymies the reasonable commercial objectives of pipeline owners.

The Council considers there are strong policy justifications for uniform regulation of all pipelines that meet the coverage criteria under the National Code. Further, the Council considers there is little substance to the criticisms of the National Code, and that the National Code can facilitate many if not all the commercial objectives sought by Duke.

Support for the view that all pipelines which meet the coverage criteria should be regulated under the National Code can be found by examining

the TPA, the preambles to the Gas Access Acts, and from the Introduction to the National Code.

The provisions in section 44ZZA of the TPA, which deal with the circumstances under which the ACCC will accept Undertakings, are relevant to this issue. Section 44ZZA(3)(d) provides that, in considering whether to accept an Undertaking, the ACCC shall have regard to “whether access to the service is already the subject of an access regime”. This provision gives the ACCC discretion, where the services in question are already subject to an access regime, to reject (or require modifications to) Undertakings.

This view is bolstered by the preamble to the Gas Access Acts and the objectives of the National Code found in the Introduction to the National Code.

The preambles to the Gas Access Acts in each State and Territory, and in the Commonwealth, provide *inter alia* that:

The Commonwealth, the States of New South Wales, Victoria, Queensland, South Australia, Western Australia, and Tasmania, the Australian Capital Territory, and the Northern Territory agreed in November 1997 to the enactment of legislation in the Commonwealth and those States and Territories so that a uniform national framework applies for third party access to all gas pipelines that [and here the objectives of the national framework were set out].

The Introduction states:

The Access Arrangement is similar in many respects to an undertaking under Part IIIA of the Trade Practices Act and is designed to allow the owner or operator of the Covered Pipeline to develop its own Tariffs and other terms and conditions under which access will be made available, subject to the requirements of the Code.

The clear intention that can be drawn from the preambles and the Introduction to the National Code are:

- that governments intended a uniform system of regulation to apply to all pipelines that were covered by the provisions of the Gas Access Acts (where coverage is determined through the application of the coverage criteria); and
- where pipelines are subject to coverage under the coverage criteria, then the provisions of the National Code should apply in respect of the

services of those pipelines to the exclusion of alternative systems of regulation.

In relation to the second argument - that the National Code had the effect of stifling innovation and was ill-equipped to regulate “entrepreneurial” pipelines - the Council has examined whether these criticisms are borne out by examining the National Code .

The submission from NECG was representative of the criticisms of the National Code raised in submissions by Energy Australia, Duke, and the Institute of Public Affairs.

NECG argued that if both the Eastern Gas Pipeline and the Moomba to Sydney pipeline were covered under the National Code, neither owner “would have the motive or opportunity to respond flexibly to demand conditions in the marketplace”:³⁸

- “The revenue adequacy (revenue cap) philosophy of the [National] Code pricing principles removes the motive to adjust prices in response to changing demand conditions”;
- “The [National] Code’s mandatory policy requirements ... work to limit each pipeline’s opportunity to adjust to changing market circumstances and develop new service offerings”;
- “Some innovative price and service offerings would be less likely to occur [because owners] would need to disclose these offerings [to their competitor]; and
- “short review periods (typically five years under the National Code) are likely to create substantial disincentives for investment, for example in expanding capacity”.

Energy Australia also argued cost based tariffs may not provide an adequate level of return taking into account the risks faced by Duke in building the Eastern Gas Pipeline – in particular the fact that it may be unable to find buyers for significant unbooked capacity in the pipeline.

The task of regulation under the National Code is to attempt as far as possible to mimic the outcomes that would be achieved in a competitive market, by correcting for any distortions caused by structural features of the gas sales market.

The Council recognises that inevitably any regulatory model would have some shortcomings that would cause it to fall short of the results achieved

³⁸ The NECG present reasons to prefer regulation by Undertaking compared to regulation through coverage. Their submission also argued some form of regulation was preferable to no regulation.

in a competitive market, but that regulation of a pipeline is justified where the results under regulation would improve on the results without regulation.

The Council considers that many of the criticisms levelled by Duke and others against the National Code have not been substantiated. For example, Duke and NECG incorrectly criticise the five year tariff review periods under the National Code: the National Code does provide for longer review periods. Section 3.18 provides:

An Access Arrangement Period accepted by the relevant Regulator may be of any length; however, if the Access Arrangement Period is more than five years, the relevant Regulator must not approve the Access Arrangement without considering whether mechanisms should be included to address the risk of forecasts on which the terms of the Access Arrangement were based and approved proving incorrect. ...

Section 3.18 then suggests particular mechanisms to address the risk of forecast errors.

Another criticism is that the tariff setting principles in the National Code are too inflexible, particularly in relation to entrepreneurial pipelines such as the Duke pipeline.

Tariff setting principles are contained in section 8 of the National Code which sets out the rules for reference tariffs. Reference tariffs are likely to be the tariffs that apply for services typically sought by access seekers. Parties are free to negotiate tariffs other than reference tariffs, but reference tariffs will be applied by the arbitrator if the parties fail to reach a satisfactory agreement in relation to a reference service.

Reference tariffs are required to be approved by the relevant regulator for the pipeline. Transmission pipelines in south east Australia, including the Moomba to Sydney pipeline, are regulated by the ACCC. Were the Eastern Gas Pipeline to become covered under the National Code, it would be regulated by the ACCC, and it would be required to submit proposed reference tariffs to the ACCC for approval.

Section 8 is flexible, and rather than specifying particular tariffs or tariff calculation methods, instead specifies a range of tariff setting principles. The guiding principles are set out in section 8.1 which provides that a Reference Tariff should be designed with a view to achieving the following objectives:

- (a) providing the Service Operator with the opportunity to earn a stream of revenue that recovers the efficient costs of delivering the

Reference Service over the expected life of the assets used in delivering that Service;

- (b) replicating the outcome of a competitive market;
- (c) ensuring the safe and reliable operation of the Pipeline;
- (d) not distorting decisions in Pipeline transportation systems or in upstream or downstream industries;
- (e) efficiency in the level and structure of the Reference Tariff; and
- (f) providing an incentive to the Service Provider to reduce costs and to develop the market for Reference Services.

The Council considers that the SA Office of Energy is correct when it argues that:

... there is sufficient flexibility in the National Code to enable Access Arrangements made under it to consider the individual circumstances of each Pipeline or Pipeline System against a common yardstick. (SA Office of Energy, p. 2)

Whether Duke's Undertaking does more to promote competition than coverage under the National Code

The legal advice to the Council was that it may consider the draft Undertaking as part of the Council's consideration of criterion (d), but that it was not apparent what relevance it would have.

Energy Australia's submission supported Duke's Undertaking, arguing that the tariffs were fair and reasonable, and appropriate to the level of risk being assumed by Duke.

While the Undertaking remains in draft form, it is difficult for the Council to assess what impact it may have on competition. The ACCC may reject or request the modification of the Undertaking, or Duke may withdraw it (with the consent of the ACCC).³⁹ This makes it difficult for the Council to place much weight on the Undertaking in its present status.

It is unclear to the Council that Duke could not achieve many of the objectives of the Undertaking in the form of an Access Arrangement under the National Code. This is because the intention of the National Code (expressed above) is for "Access Arrangement [to be] similar in many respects to an Undertaking under Part IIIA", and the flexibility of the National Code in the design of Access Arrangements.

³⁹ Section 44ZZA(7).

The Council considers there is insufficient evidence to support a conclusion that coverage under the National Code would be contrary to the public interest on the grounds that Duke's Undertaking promotes competition to a greater extent than coverage.

Symmetrical Regulation

EAPL argued it was important to ensure symmetrical regulation of the Eastern Gas Pipeline and the Moomba to Sydney pipeline: that is, both should be covered, the subject of an Undertaking, or not regulated.

The NECG submission set out the case for symmetrical regulation:

If a situation were to eventuate in which one pipeline was regulated under the [National] Code and the other pipeline were subject to a Part IIIA Undertaking or no coverage ... then the pipeline covered by the [National] Code would find itself at a severe competitive disadvantage.

They argue that the competitive disadvantage arises from the inability of the owner of a covered pipeline to react competitively to the actions of the owner of an unregulated pipeline or a pipeline regulated under an Undertaking.

The Council recognises that there is a public interest case for regulatory symmetry: that is, the equal treatment of participants, or businesses with interests, in the same market or markets.

However, the Council notes that:

- regulatory symmetry does not mean that all pipelines are treated exactly the same: Access Arrangements will vary according to circumstances. For example, the level of prescription in an Access Arrangement for a pipeline the owner of which has interests in related activities (such as gas distribution) may be appropriately different from an Access Arrangement for a fully vertically separated pipeline;
- it might be argued that, in some circumstances, no coverage under the National Code with the possibility (or threat) of coverage in the future is consistent with the principle of regulatory symmetry.

The Council notes that it will have further opportunity to consider this matter in the context of the release of its Final Recommendation concerning this application and in the context of EAPL's application for revocation, and seeks further views on this question.

Information disclosure

A number of submissions argued coverage was in the public interest because it would promote information disclosure, better inform the market, and reduce the possibility of regulatory capture by promoting open regulatory processes. (Australian Gas Users Group, Public Interest Advocacy Centre, Energy Markets Reform Group). On the other hand, NECG argued information disclosure might assist collusion.

The Council considers that nothing arises in relation to the issue of information disclosure under criterion (d) that has not already been discussed under criterion (a).

The Council concludes that access (or increased access) to the services of the Eastern Gas Pipeline would not be contrary to the public interest, and therefore that criterion (d) is met.

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Appendix 1: Submissions to the Council

1. Institute of Public Affairs
2. Energy Australia
3. Public Interest Advocacy Centre
4. WA Office of Energy
5. EAPL
6. SA Office of Energy Policy
7. EAPL
8. Australian Gas Users Group
9. AGL
10. EAPL (enclosing NECG report)
11. Duke (later revised and resubmitted)⁴⁰
12. Energy Markets Reform Forum
13. Duke

⁴⁰ Page references are to the revised submission.

Appendix 2: Criteria for Coverage in Section 1.9 of National Code

Section 1.9 of the National Code provides:

Subject to sections 1.4(a) and 1.10, the NCC must recommend that the Pipeline be Covered (either to the extent described, or to a greater or lesser extent than that described, in the application⁴¹) if the NCC is satisfied of all of the following matters, and cannot recommend that the Pipeline be Covered, to any extent, if the NCC is not satisfied of one or more of the following matters:

- (a) that access (or increased access) to Services provided by means of the Pipeline would promote competition in at least one market (whether or not in Australia), other than the market for the Services provided by means of the Pipeline;*
- (b) that it would be uneconomic for anyone to develop another Pipeline to provide the Services provided by means of the Pipeline;*
- (c) that access (or increased access) to the Services provided by means of the Pipeline can be provided without undue risk to human health or safety; and*
- (d) that access (or increased access) to the Services provided by means of the Pipeline would not be contrary to the public interest.*

⁴¹ Having regard to any part of the pipeline that is necessary to provide services that potential users may seek access to (section 1.7).

Appendix 3: Why the Council considered the Application was in Order⁴²

The National Code sets out the rules governing the validity of applications for coverage. Section 1.3 provides:

Any person, including the relevant Regulator, may make an application to the NCC (the Council) requesting that a particular Pipeline be Covered. The NCC may publish guidelines concerning the form and content of Coverage applications and specifying the amount of any fee to be paid on the making of an application. If it does so, applications must be made in accordance with those guidelines.

The major issue for the Council in assessing whether to accept and consider AGL's application was whether the Eastern Gas Pipeline was a 'Pipeline' within the meaning of section 1.3 given that it was only partly constructed at the date the application for coverage was lodged.⁴³ Construction of the Eastern Gas Pipeline commenced in August 1999 and is expected to be completed before September 2000.

The Council sought legal advice, and sought (and received) submissions from Duke and AGL on the validity of the application.

After considering the arguments raised by Duke and AGL and its own legal advice, the Council decided that the Eastern Gas Pipeline was a pipeline for the purposes of the coverage processes of the National Code.

The Council considered that:

- except where expressly provided to the contrary, a prospective pipeline is not a pipeline for the purposes of the National Code (the exceptions, include Part 3 of the GPAL, where for the purposes of that Part a pipeline is defined to include a prospective pipeline);
- a fully constructed and operating pipeline is clearly a pipeline for the purposes of the National Code; and
- at some point, a pipeline moved beyond being merely a prospective pipeline to become a pipeline for the purposes of the National Code.

⁴² The following discussion summarises the Council's reasons for deciding the application was in order. The Council has prepared a Statement of Reasons dated 7 February 2000 which more comprehensively states its reasons for deciding the application was in order, and to the extent of any inconsistency that Statement takes precedence over the reasons stated here.

⁴³ The Council also considered whether the application was trivial or vexatious, and whether it complied with the Council's guidelines for applications for coverage.

Based on this reasoning, the Council examined the evidence in relation to the Eastern Gas Pipeline. It observed that:

- at the time of the application, the pipeline had been under construction since August 1999, and completion was expected as early as July 2000. Pipeline licences had been granted in NSW and Victoria and significant aspects of the pipeline had been fixed, such as its route, diameter, and maximum average operating pressure; and
- the Council had adequate information to assess whether the Eastern Gas Pipeline met the criteria for coverage, and there was nothing to suggest its assessment of the criteria for coverage was likely to be affected by a change in circumstances between the date the application was received and the expected date of completion of the Eastern Gas Pipeline.

The Council also noted a number of other factors supported acceptance of the application:

- a purposive approach should be adopted to statutory interpretation;
- some pipelines in WA were listed for coverage under Schedule A to the National Code while under construction (pipelines listed in Schedule A are automatically covered on commencement of the National Code);
- two of the four coverage mechanisms under the National Code explicitly relate to coverage of pipelines prior to construction: pipelines may become automatically covered as a result of a competitive tender process for the building of a new pipeline; and a service provider may request coverage by proposing an Access Arrangement in respect of a pipeline or prospective pipeline;
- rejecting the application might lead to a situation where parties could not apply for coverage of an inoperative but completed pipeline (for example a temporarily decommissioned pipeline);
- once a pipeline is covered there is a considerable period involved (perhaps a year in complex cases) in approving Access Arrangements. If an application cannot be made until a pipeline is built, then access may be delayed under the National Code for up to a year, partially frustrating the intention behind the National Code of providing third parties with a mechanism to seek access to the services of covered pipelines; and
- a consequence of non-coverage might be the creation of a separate access regime under Part IIIA for the Eastern Gas Pipeline that is distinct from the access regime pertaining to most other regulated pipelines in Australia. This could come about if the ACCC approved

Duke's Undertaking. The intention of the Gas Access legislation, expressed in the Explanatory Memorandum to the Commonwealth legislation, is to create a single process of coverage and access rather than a number of different schemes for access.