

Final Recommendation

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

June 2000

National Competition Council

Introduction

This document contains the National Competition Council's Final Recommendation regarding an application for coverage of the Eastern Gas Pipeline under the provisions of the NSW and Victorian gas pipelines 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 be completed and commence operations by September 2000.

The Council has engaged in wide public consultation in arriving at the views contained in this Final Recommendation.

The Council met on a number of occasions with Duke and on one occasion with AGL, and called for public submissions prior to releasing a Draft Recommendation in May. After receiving further public submissions and meetings with interested parties, the Council prepared this Final Recommendation.

The Council also commissioned a consultancy by the Brattle Group on the international experience in pipeline regulation for comparative purposes.

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 Final 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The Council received twenty-six submissions (including one submission which was subsequently withdrawn).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 advisers on the proper interpretation of the coverage criteria, and on whether the application was in order.

The Council's Final Recommendation is that the Eastern Gas Pipeline be Covered as the Council is satisfied that all four criteria in section 1.9 of the National Code are met in respect of the whole of the pipeline.

Following this introduction and the Executive Summary, comes the main body of the Final 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; and
- details of the application, including specification of the relevant pipeline.

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

Part C contains the Council's detailed consideration of the Eastern Gas Pipeline against the criteria against which coverage of the Eastern Gas Pipeline must be assessed. The full text of the criteria is at Appendix 2.

Abbreviations and glossary of terms

ABARE	Australian Bureau of Agricultural and Resource Economics
ACCC	Australian Competition and Consumer Commission
Access Arrangement	Arrangement by owner or operator of a covered natural gas pipeline setting out the terms and conditions and tariffs on which third parties may seek access to the services of the pipeline. Access Arrangements must be approved by the relevant regulator as complying with the requirements of the National Code.
AGA	Australian Gas Association
AGL	The Australian Gas Light Company, or an associated company (with the exception of EAPL)
AGUG	Australian Gas Users' Group
APIA	Australian Pipeline Industry Association
Bass Strait producers	Esso and BHP, the joint venture producers at the Gippsland Basin in the Bass Strait
BCA	Business Council of Australia
COAG	Council of Australian Governments, constituted by the Commonwealth Government and the eight State and Territory Governments
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, the owner and operator of the Moomba to Sydney Pipeline at the time the application for coverage of the Eastern Gas Pipeline was made. Ownership of the Moomba to Sydney Pipeline was transferred to the Australian Pipeline Trust in June 2000, but this Final Recommendation continues to refer to EAPL.
EMRF	Energy Markets Reform Forum
FAC	Federal Airports Corporation
FERC	Federal Energy Regulatory Commission, the US regulatory agency charged with regulation of infrastructure including natural gas pipelines.
Gas Access Acts	The Acts in each State and Territory which provide for third party access to the services of natural gas pipelines. The Acts apply the GPAL and Code as law in those jurisdictions
GJ	Gigajoule, a unit of measurement for measuring the energy content of natural gas or other energy sources.
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
LECG	Law and Economics Consulting Group (consultants to Duke on this matter)
MPa	Megapascals, a measure of pipeline operating pressure
MWh	Megawatt-hour (a unit measure of electricity output)
(the) National Code	National Third Party Access Code for Natural Gas Pipeline Systems

NCC	National Competition Council
NECG	Network Economics Consultancy Group (consultants to Duke and EAPL on this matter)
NIEIR	National Institute of Economic and Industry Research
Part IIIA	Part IIIA of the Trade Practices Act, which deals with access to the services of essential facilities.
PIAC	Public Interest Advocacy Centre
PJ	Petajoule (equal to 1,000,000 GJ or 1,000 TJ)
PL	Pipeline Licence
SACL	Sydney Airport Corporation Limited
SA Unit (producers)	South Australian Unit Producers, based at the Moomba gas fields in the Cooper Basin, and led by Santos.
SIA	Sydney International Airport
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) of the TPA. Authority on interpretations of the criteria for declaration are therefore relevant.

The Council must be affirmatively satisfied that all four of the criteria in section 1.9 are met before it can recommend coverage. If the Council is not satisfied that one or more of the criteria are met it must recommend that the Pipeline not be covered.

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

¹ Section 1.7, National Code.

² Section 1.9, National Code.

- determine whether it would be uneconomic for anyone to develop another pipeline to provide competing services.

The services of this pipeline

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.³

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.

Pipelines that could Provide the Services

The Council 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 a competing service. This approach is consistent with 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. This approach also avoids the circularity of considering that only the Eastern Gas Pipeline could provide the services.

The Council considers the objectives of the legislative scheme are best met by having regard to the provision of competing services provided by another existing pipeline, rather than limiting its consideration to new pipelines.

Accordingly, the Council has to take into account whether existing pipelines such as the Moomba to Sydney Pipeline or the Interconnect do or could provide competing services, whether or not this required some enhancement of the existing capacity of the other pipelines.

Another consideration in determining the range of pipelines that might provide competing services is the possibility that other pipelines might provide services that compete with those provided by *part* of the Eastern Gas Pipeline. On this basis, the Council considers that it is appropriate to take into account the Wilton to Horsley Park pipeline owned by AGL Distribution. This is because, once the Eastern Gas Pipeline is built, the two pipelines will run parallel between Wilton and Horsley Park.

³ Section 10.8, National Code.

Services provided by the Eastern Gas Pipeline and competing services

Services that compete are services that are substitutes for each other, that is, services that operate in the same market. Essentially the question for the Council is what other pipelines provide substitutes for the services of the Eastern Gas Pipeline.

There are two possible approaches to determining what pipelines might provide competing services with the Eastern Gas Pipeline:

- 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, i.e. the South East Australian gas sales market.
- defining the service in terms of both the start and end points (or regions) of the service. On this approach the Eastern Gas Pipeline would provide gas transportation services from Longford to Sydney and potentially to destinations in between.

The Council prefers the second approach for a number of reasons including that:

- it does not rely on the fact that sales gas is homogeneous and is therefore more consistent with the application of access regulation in other industries;
- access to pipeline transmission services within a large geographic market may be needed to enhance competition in that market, and access may in turn require such services to be covered under the National Code; and
- this approach better supports the objectives of the National Code of 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).

The Council concludes that, for the purposes of identifying competing services, the services of the Eastern Gas Pipeline are those related to the transportation of natural gas between Longford and Sydney, including all possible destinations between these two locations proximate to the pipeline.

This approach to the description of the relevant transmission services provided by the Eastern Gas Pipeline does not, however, exclude the possibility that other services, such as those provided by the Moomba to Sydney Pipeline, are competitive with the services of the Eastern Gas Pipeline; that is that those other services are in the same market as the services provided by the Eastern Gas Pipeline.

Moomba to Sydney Pipeline

While for some users, the Moomba to Sydney Pipeline might be considered to provide competing transmission services for the services of the Eastern Gas Pipeline, for many people wanting to use the Eastern Gas Pipeline, the Moomba to Sydney Pipeline will not be a ready substitute because:

- for the producers in each basin, the two pipelines do not provide substitute services;
- for gas users with contracts with particular producers the two pipelines may not provide effective substitute services. This is because gas supply may be available from a producer in one basin on more favourable terms than from producers in the other basin; and
- gas users' ability to switch between suppliers of both gas and gas transmission services are limited by contractual arrangements.

The Council concludes that the services of the Moomba to Sydney Pipeline are not effective substitutes for the services of the Eastern Gas Pipeline.

The Interconnect

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; and
- 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).

For some users the Interconnect may provide a substitute service to the Eastern Gas Pipeline; the transport of gas from Longford to Sydney. The capacity of this service is limited and it is not likely to be economic to expand the service in the foreseeable future. It is also clear, from the route taken by the Interconnect to Sydney, that it cannot provide a gas transportation service to all those potential users situated along the route of the Eastern Gas Pipeline.

The Council concludes that the Interconnect may provide a very limited competing service, but that it would not be economic to develop the Interconnect further to provide services that compete to a greater extent. For some of the services of the Eastern Gas Pipeline, those related to destinations south of the ACT, the Interconnect does not provide any competing services.

Wilton to Horsley Park

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.

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.

Both the AGL and the Duke Wilton to Horsley Park pipelines exhibit natural monopoly characteristics, in that either of them individually can fully meet the demands of the market at less cost than through construction of a second pipeline. The fact that a second pipeline has already been constructed does not alter this.

The Council concludes that:

- AGL's Wilton to Horsley Park pipeline provides services that will compete with the Wilton to Horsley Park part of the Eastern Gas Pipeline;
- But despite this, the duplication of AGL's Wilton to Horsley Park pipeline by Duke in fact constituted uneconomic development. Therefore the duplication does not refute the proposition that it is uneconomic to develop another pipeline to provide the services of the Eastern Gas Pipeline.

New Pipeline

The Eastern Gas Pipeline 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 addition, the high sunk costs of constructing another pipeline serve as a barrier to the entry of a new pipeline as does the existence of spare capacity.

The Council considers that it would not be economic for any party to build a new pipeline to provide the services of the Eastern Gas Pipeline at current and reasonably anticipated levels of future demand.

Conclusion

The Council concludes that it is not economic to develop another pipeline to provide services to compete with the Eastern Gas Pipeline and therefore criterion (b) is met.

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.

Separate 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 (market for gas sales). 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 gas sales 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 National 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 South East Australian gas sales 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 for 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.

⁴ Australian Competition Tribunal, 2000, p. 44.

Competition in Regional Areas

The Eastern Gas Pipeline serves a number of regional centres south of the ACT such as Bombala, Cooma, Orbost, and Bairnsdale where it would not be economic for other pipelines to serve these 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.

Competition in the South East Australian Gas Sales Market

The key question for the Council under this criterion is whether access or increased access to the services of the Eastern Gas Pipeline would promote competition in the South East Australian gas sales market.

In considering whether access to the services of the Eastern Gas Pipeline will promote competition in the South East Australian gas sales market the Council has examined the incentives the Eastern Gas Pipeline has to compete in the absence of coverage under the National Code.

The fact that Duke has no interest in gas production or distribution services and only limited interests in gas sales, combined with the expectation there will be some surplus transmission capacity into Sydney, militate against the contention that the Eastern Gas Pipeline's power in the transmission services market will restrict competition in the South East Australian gas sales market.

However, the current structure of the South East Australian gas sales market, especially as it relates to supplies of gas into Sydney, ensures that there are limited incentives on the Eastern Gas Pipeline to compete vigorously in selling transmission services to Sydney:

- There is little risk in the short to medium term of entry by another pipeline because of the relatively slow market growth in NSW and the possibility of expanding capacity in the Eastern Gas Pipeline up to 110 PJ per year, and in the Moomba to Sydney Pipeline up to 290 PJ per year at costs much lower than the cost of building a new pipeline into NSW.
- The Interconnect has little potential to compete with the Eastern Gas Pipeline in view of the costs of upgrading it sufficiently.

The low risk of entry by a third party demonstrates the prospect that the Eastern Gas Pipeline may be able to execute a strategy of pricing capacity above competitive levels in anticipation that the Moomba to Sydney

Pipeline will follow a similar strategy. Successful execution of this strategy would result in a less than competitive market and greater profits for both pipelines.

Particular features of the market place would assist this strategy:

- the fact that the investment in the Eastern Gas Pipeline is sunk means it cannot be forced out of the market, making accommodation more likely;
- 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. On the other hand, the Council notes that EAPL could increase the capacity of the Moomba to Sydney Pipeline;
- Duke and EAPL will have significant bargaining power in negotiations with producers or gas users; and
- the disparity between current prices (which are near average costs) and marginal costs suggest that the consequences for either pipeline of a price war, where price is driven towards marginal cost, would be disastrous.

The successful execution of a parallel behaviour strategy is assisted by a number of other factors:

- as there are only two pipelines, monitoring by either party would be relatively easy;
- 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 vice versa. These contractual complexities may make it more difficult for one pipeline to suddenly to drop its price and rapidly pick up market share; and
- 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.

Finally, the Council notes that:

- no upstream or downstream party apart from Energy Australia supported non-coverage, and most explicitly supported coverage; and
- the LECG submission said coverage of both the Moomba to Sydney Pipeline and the Eastern Gas Pipeline might eliminate allocative costs associated with parallel pricing behaviour of about \$21.2 million for a

net benefit from coverage (after deduction of regulatory and indirect costs) of \$9.8 million.

The Council is firmly of the view, based on consideration of the available evidence, that there is a real danger or likelihood of parallel pricing behaviour between the Eastern Gas Pipeline and Moomba to Sydney Pipelines.

The Council does not accept the argument that coverage under the National Code would facilitate parallel behaviour through the release of information that would otherwise remain confidential.

The minimum information requirements in the various pipeline management, services, and trading policies are not high, and do not appear to be of a nature that would facilitate collusion between pipeline owners. Moreover, the information disclosure provisions may facilitate greater scrutiny of prices thus making it easier for the regulator and the market to detect parallel pricing strategies.

Further, the Council does not accept that coverage under the National Code would impose costs greater than any benefits provided by coverage through reducing incentives to offer innovative service and price options. The Council considers that the National Code retains considerable flexibility for parties to construct innovative service and pricing options.

Conclusion

The Council considers the issue of whether access is likely to promote competition in the South East Australian gas sales market ultimately rests on judgments about the outcome likely to result after taking into account the combination of incentives facing Duke and EAPL.

Having considered the South Eastern Australian gas sales market with and without coverage, the Council is firmly of the view that access under the National Code is likely to promote the conditions for greater competition in the South East Australian gas sales market, and therefore criterion (a) is met.

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.

The Council considered the following issues in considering this criterion:

- 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 costs and benefits of regulation; and
- the policy arguments for and against symmetrical regulation of the Eastern Gas Pipeline and the Moomba to Sydney Pipeline.

Regulation under the National Code compared to regulation under an Undertaking

The Council considers there are strong policy justifications for the view that all natural gas pipelines that meet the coverage criteria should be regulated under the relevant Gas Access Acts and 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 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 met 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.

The Council does not accept that the National Code has the effect of stifling innovation and is ill-equipped to regulate "entrepreneurial" pipelines. The Council considers that many of the criticisms levelled by Duke and others against the National Code have not been substantiated

and that the National Code has sufficient flexibility to consider the circumstances of individual pipelines.

The Council recognises that inevitably any regulatory model would have some shortcomings that would cause it to fall short of the results achieved in a competitive market, but that regulation of a pipeline is justified where the results under regulation would improve on the results without regulation.

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

It is difficult for the Council to place much weight on the Undertaking in its present draft form. The ACCC may reject or request the modification of the Undertaking, or Duke may withdraw it (with the consent of the ACCC).⁵ 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.

The Council is not satisfied that coverage under the National Code would be contrary to the public interest by reason of the draft Undertaking submitted by Duke to the ACCC.

Costs of regulation of the Eastern Gas Pipeline

The Council recognises that there are costs associated with regulation under the National Code, and that these can be significant. However, the Council considers it reasonable to assume that the costs of legitimately regulating monopoly infrastructure were taken into account by COAG in its decision to develop the National Code. It also notes that, were the Eastern Gas Pipeline not covered, its owners would face not insubstantial costs in negotiating individual contracts with customers.

Overall, the Council considers that the benefits of regulating the Eastern Gas Pipeline under the National Code will outweigh the costs. The benefits of coverage of the Eastern Gas Pipeline are likely to be large, given the size of the market in which competition will be promoted (the market for gas sales in South East Australia).

⁵ Section 44ZZA(7).

Costs of regulation of part of the Eastern Gas Pipeline

The Council notes that, as it has determined that all the criteria are met for the entirety of the pipeline, partial coverage is no longer at issue for this application.

Symmetrical Regulation

The Council considers that the criteria for coverage set out in the National Code should be applied independently to each application for coverage or revocation brought before it. Where pipelines have similar characteristics it is likely that its processes will result in similar recommendations.

The Council considers that where the owner of a pipeline has interests in related activities (such as gas distribution), the possibility of anti-competitive behaviour is most appropriately addressed through specific regulation (such as ring-fencing) rather than in the context of decisions about coverage.

Conclusion

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.

Recommendation

The Council recommends that the Eastern Gas Pipeline be Covered as it is satisfied that all four criteria in section 1.9 of the National Code are met in respect of the whole of the 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).

Construction of the Eastern Gas Pipeline started in August 1999 and the pipeline is expected to commence operations at the latest by September 2000.

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

The joint owners of the Eastern Gas Pipeline are Duke Eastern Gas Pipeline Pty Ltd and DEI Eastern Gas Pipeline Pty Ltd. Duke Australia Operations Pty Ltd will operate the pipeline. (All three companies are collectively referred to in this Final Recommendation as **Duke**).

Duke challenged the validity of the application on the basis that construction of the Eastern Gas Pipeline had not been completed at the time the application was lodged. After consideration of submissions from Duke and AGL and legal advice, the Council determined that the application for coverage was a valid application in accordance with the provisions of the National Code and proceeded to consider it. The reasons for the Council's decision to accept the application are set out at Appendix 3.

Diagram 1: Route of Eastern Gas Pipeline

[Diagram of the route of the Eastern Gas Pipeline can be found in separate attachment]

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 spare 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 services provided by those facilities; or under a voluntary Undertaking approved by the ACCC.

Duke opposes coverage of the Eastern Gas Pipeline under the National Code and has sought regulation of the Eastern Gas Pipeline pursuant to an Undertaking provided under Part IIIA. To this end, it has lodged an Undertaking with the ACCC, which is currently being considered. 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 from Longford 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. 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

The Eastern Gas Pipeline has been classified in accordance with the procedures laid down under the GPAL as a transmission pipeline.⁶ By reason of this and the fact that it is an interstate pipeline, the Minister for Industry, Science and Resources, Senator, The Hon. Nick Minchin, is responsible for deciding the coverage application.⁷

Effect of Coverage

If pipelines are covered, the owners/operators of the relevant pipelines must meet certain obligations under the National Gas Access Regime. 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 parties interested in obtaining access;
- dispute resolution mechanisms; and
- pricing principles (how the prices in the Access Arrangement are derived).

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

⁶ The National Code Registrar notified the Council by letter on 7 June 2000 that the Eastern Gas Pipeline had been classified as a transmission pipeline under the GPAL.

⁷ 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.

considers that a pipeline meets all the criteria in section 1.9, it must recommend coverage of that pipeline.

Section 1.7 of the National Code gives the Council discretion to recommend coverage of a greater or lesser part of the pipeline than that specified in the application

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.

Following the Council's Final Recommendation, the following steps are to be taken:

- the Council must provide copies of its final recommendation to relevant parties, including the Minister, the owner/operator of the Eastern Gas Pipeline, the applicant, any party who made a submission and any party who requests a copy;
- the Minister has 21 days after receiving the Final Recommendation to decide whether to cover or not to cover the Eastern Gas Pipeline;
- 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 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 make an application for review. The application for review may be taken under either the NSW or Victorian Gas Access Acts. Both Acts specify the Australian Competition Tribunal ("**the Tribunal**") as the review body.

Part B – Background Information

Structure of Natural Gas Industry

Natural gas is an important source of energy in NSW. In 1997/98, users in NSW consumed 106.6 PJ of natural gas, about 9.5 percent of their total energy requirements. (NSW Ministry of Energy and Utilities, 1999b) However, NSW's use of natural gas as a percentage of total energy consumption is low by comparison with some other States. For example, in 1997/98 Victoria consumed 241.9 PJ, about 16 percent of its total energy requirements. (ABARE, 1999, p. 141) The highest gas-using State is Western Australia; in 1997/98, consumers in that State used 312 PJ of gas or 47 percent of their total energy requirements. (WA Office of Energy, 1999, p. 9)

Natural gas occurs in raw form in natural reservoirs located both on land and at sea. It is collected via gathering pipelines and processed to remove impurities. 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 via medium and low pressure distribution pipelines to commercial and residential users. In the course of supply to users, retailers provide marketing, billing, and meter reading services.

Reductions in the transport costs of gas can make it a significantly more attractive source of energy. Transport costs normally represent a significant proportion of total delivered costs, but can vary widely depending on the difficulty of collecting the gas, the cost of laying the transmission and distribution pipelines, and the distance from the gas basin to the final market. Information collected in 1990/91 on the final price of gas delivered in NSW, Victoria, Queensland and South Australia suggested that transmission prices represented around 10 percent of final prices, while distribution prices represented around 40 and 50 percent of final prices.⁸ (International Energy Agency (OECD), 1994, p. 16) The submission from the Australian Pipeline Industry Association (APIA) states that in NSW transmission tariffs represent less than 6 percent of the total delivered price of gas for residential customers and less than 15 percent for commercial/industrial customers. (APIA, submission 16, p. 6) LECG states that for large users (who draw gas from the transmission network and do not pay distribution or retailing charges) transmission tariffs represent around 25 percent of the total delivered gas price for the Moomba to Sydney Pipeline, and are expected to represent around 26 percent for the Eastern Gas Pipeline. (LECG, submission 21, p. 17)

⁸ Recent tariffs for transport of gas to Sydney, discussed below, suggest transmission tariffs in the range of \$0.70 – \$0.91 on basin prices of about \$2.35 – \$2.55.

The composition of the delivered price of gas for large and small users in NSW is discussed further below.

Gas transport tariffs are affected by the mechanisms used to manage different types of risk. One major risk is associated with the construction of new pipelines. When deciding whether to build a pipeline, the prospective pipeline owner needs to ensure that sufficient capacity on the pipeline is likely to be booked to cover the costs of construction and allow a reasonable rate of return to be made. In Australia, this risk has historically been managed by deferring pipeline construction until long-term contracts for capacity at particular prices have been signed. However, this approach carries the risk that long-term prices may be at a discount to those users prepared to pay for capacity in the pipeline. If the prospective pipeline owner is confident of demand for gas supplied through its pipeline, it may elect not to commit to long term contracts. In this case, it may seek to manage risk by entering shorter term contracts, hoping that growth in demand will place upward pressure on the prices that parties are prepared to pay for capacity in the pipeline.

In South East Australia, two major basins supply most of the needs of Sydney, Melbourne, Adelaide, Brisbane and regional centres. The first is the Cooper/Eromanga Basin. The Cooper/Eromanga Basin is spread across the north east corner of South Australia and the south west corner of Queensland. Gas from the Cooper Basin is processed at the Moomba processing plant in South Australia and supplies Sydney and Adelaide, while gas from the Eromanga Basin is processed at Ballera in Queensland, (as well as at Moomba) and supplies Brisbane, Mt Isa, and Adelaide. At present, virtually all the natural gas used in NSW and SA is sourced from the Cooper/Eromanga Basin.⁹ Gas from the Cooper/Eromanga Basin may also be supplied to Victoria via pipes interconnecting Wagga Wagga in NSW and Wodonga in Victoria (**the Interconnect**).

The second major source of supply is the Gippsland Basin in Bass Strait. Gas from the Gippsland Basin is processed at Longford and supplies Melbourne and regional Victoria. It is currently possible for small amounts of gas from the Gippsland Basin to be supplied to Sydney through the Interconnect. The Eastern Gas Pipeline, when completed, will transport gas from the Gippsland Basin to Sydney, the Australian Capital Territory and a number of regional towns in Victoria and NSW. Almost all the gas used in Victoria is sourced from the Gippsland Basin.¹⁰

Diagram 2 below contains a map of the major pipelines in Australia.

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

¹⁰ Historically, about 98 percent of Victoria's natural gas requirements have been supplied by the Gippsland Basin, with the remaining two percent being supplied by the Otway Basin: Victoria, 1999, p. 3.

Diagram 2: Natural Gas Pipelines in Australia

[Diagram of Natural Gas Pipelines in Australia can be found in separate attachment]

The scope for competition for the supply of natural gas to NSW depends on factors including:

- the degree of ownership concentration at gas production, transmission, distribution and retailing;
- the degree of vertical integration of ownership;
- the relative price of gas supplied from processing plants, the amount of reserves in the major gas supplying basins;
- constraints on supply, for example, production constraints on the output of processing plants;
- existing long-term contractual arrangements among producers, pipeline owners and users;
- available capacity for transporting gas, in particular uncontracted or spare capacity; and
- regulatory arrangements over the production, supply, and use of gas.

Production

Production in the Cooper/Eromanga Basin is dominated by Santos. Gas collected in the fields in the Cooper/Eromanga Basin near Moomba in South Australia is jointly produced and marketed by the South Australian Cooper Basin Unit Producers (**SA Unit**).¹¹ Santos holds an interest of approximately 60 percent in the gas produced by the SA Unit and also holds majority interests in most of the production permits located in the Cooper/Eromanga Basin in South West Queensland (*Re AGL Cooper Basin Natural Gas Supply Arrangements* (1997) ATPR 41-593 at 44,188). Esso, through its subsidiary Delhi Petroleum, holds a 20 percent interest in the gas produced by the SA Unit, while Origin Energy holds about a 13 percent interest. (South Australian Department of Primary Industries and Resources, 2000).¹²

Alternative sources of supply for NSW are:

- coal-bed methane produced at sites near Camden, and coal-bed methane produced at Narrabri in North West NSW; and
- gas from the Gippsland Basin supplied to Sydney via the Eastern Gas Pipeline or the Interconnect.

The Sydney Gas Company is seeking to extract coal-bed methane from coal beds in the Sydney Basin near Camden. Sydney Gas Company's website states that it has developed a pilot project at Johndilo near Camden which it is confident will produce a minimum of 2 PJ per annum. The company intends to build a short pipeline to interconnect with AGL's distribution system, and has signed a letter of intent to sell gas into AGL's distribution system if it can achieve minimum flows of 2 PJ per annum. (Sydney Gas Company, 2000, p. 1)

Feasibility studies are also being carried out on production of coal-bed methane near Narrabri in the north west of NSW. According to the NSW Ministry of Energy and Utilities:

There are indications that commercial quantities of gas exist near Narrabri ... An intensive 12 month gas exploration has begun in the Narrabri region and feasibility studies will examine the possibility of piping this gas to Newcastle and Sydney. (NSW Ministry of Energy and Utilities, 1999)

¹¹ Joint production means that gas is produced at a shared facility, while joint marketing means that the producers combine together as a single marketing entity to sell to purchasers of gas.

¹² Approximate shares of participants in the SA Unit are: Santos 59.75 percent; Esso 20.21 percent; Origin Energy (formerly the energy assets of Boral) 13.19 percent; Gulf 4.75 percent; and Cultus 2.1 percent.

It is difficult to assess the impact of this potential source of gas because it has yet to be established as economic to produce.

Gas can be supplied from basins in Victoria to NSW through the Interconnect. The actual amount that can be supplied is limited by the degree of compression in the Victorian gas network and the capacity of the Interconnect. This is discussed further below.

The gas production fields in the Gippsland Basin are jointly owned and operated by Esso and BHP. Gas from these fields is processed at Esso's processing plant at Longford near Sale. Esso and BHP jointly market the gas produced in the Gippsland Basin and sell it to Gascor.¹³ The joint marketing agreements between Esso/BHP and Gascor are confidential, but the Victorian Department of Treasury and Finance reports that:

In November 1998, 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. (Victorian Department of Treasury and Finance, 1998, p. 63)

This agreement has been authorised by the *Gas Industry Act (Victoria) 1994* to exempt it from Part IV of the TPA.

The gas supplied under this agreement meets a large proportion of Victoria's gas requirements until 2009, but leaves some scope for outstanding demand to be met by other suppliers.

Woodside has expressed an interest in developing the Kipper gas field in Bass Strait. This field lies adjacent to fields under production by Esso and BHP.

Reserves

Figures in a report prepared for the BCA by Port Jackson Partners indicate reserves in the Cooper/Eromanga Basin of 9,233 PJ, about 7.6 percent of Australia's total natural gas reserves. Cooper/Eromanga Basin producers were estimated as producing at an annual rate of about 212 PJ per year, indicating reserves could continue to meet current rates of demand for about 43 years.¹⁴ (Port Jackson Partners, exhibit 28, facing p. 21)

¹³ Gascor has now been disaggregated into the three stapled Victorian distribution and retailing companies (Stratus, Westar, and Multinet) which have been privatised.

¹⁴ Mr McArdle of Santos testified to the Australian Competition Tribunal during hearings in the AGL/Cooper Basin authorisation decision in 1997 that the Cooper Basin had little capacity to supply

These figures suggest that there are sufficient gas reserves in the Cooper/Eromanga Basin to enable the Moomba to Sydney Pipeline to be a significant supplier of gas to the NSW market for the foreseeable future. In their joint submission on the application for revocation of coverage of parts of the Moomba to Sydney Pipeline, Woodside and Shell Development note that they, or their customers, may in future seek to ship gas via the Moomba to Sydney Pipeline from the Sunrise gas fields in the Timor Sea. The submission notes that delivery of gas from the fields to Darwin is expected to commence in 2005, with gas possibly flowing to markets in South East Australia (possibly via the Moomba to Sydney Pipeline) soon after. (Woodside/Shell, 2000, p. 2)

Port Jackson Partners estimated reserves in the Gippsland Basin of about 13,283 PJ or roughly 11 percent of Australia's total gas reserves. The Otway Basin holds small additional reserves (Port Jackson Partners, exhibit 28, facing p. 21). At present rates of production, these reserves can meet current rates of demand for more than 50 years.

Gas transmission and distribution

Gas from the Moomba processing plant in the Cooper Basin is transported to Sydney, regional NSW, and the ACT via the Moomba to Sydney transmission pipeline. Another pipeline runs from Moomba to Adelaide.

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) The pipeline was originally owned by the Commonwealth and operated by a statutory authority, The Pipeline Authority. The pipeline was sold to EAPL in 1994. (EAPL, 1999, p. 23)

The Moomba to Sydney transmission pipeline supplies gas to Sydney and, through laterals, to major regional centres including Dubbo, Newcastle, Lithgow, Wollongong, and the Australian Capital Territory. It transported 111.7 PJ in 1998, and 115.8 PJ in 1999, (EAPL, 1999, pp. 11, 13)¹⁵ supplying over 95 percent of NSW's natural gas requirements in those years. (NSW Ministry of Energy and Utilities, 1999b)

The Moomba to Sydney Pipeline has recently changed ownership. Today, the pipeline is owned by the Australian Pipeline Trust, which is publicly listed. The Council understands that AGL holds a 30 percent interest and

gas to NSW beyond that committed under its contract to supply AGL in Sydney. This contract provides for a maximum of 120 PJ per year to be supplied under a contract expiring in 2006 (unless renewed for a period up to five years). On the evidence before it, the Tribunal found beyond 2006 the Cooper and Eromanga Basins had the capacity only to supply "perhaps 15 % to 20 % of NSW demand for several years", far less than the current 95 - 100 percent of NSW demand. (*Re AGL Cooper Basin Natural Gas Supply Arrangements* (1997) ATPR 41-593 at 44,204). However, since that time, the Council understands that significantly more gas has been discovered in the Cooper/Eromanga Basin.

¹⁵ TJ units converted to PJ units through multiplication by 365.25/1000.

Petronas a 10 percent interest in the Australian Pipeline Trust. (EAPL, 2000a) Until the creation of the Australian Pipeline Trust, the pipeline was owned by EAPL, in which AGL held a 76.48 percent interest, and Petronas a 23.52 percent interest.¹⁶

A significant proportion of the capacity of the Moomba to Sydney Pipeline is committed under the Gas Transportation Agreement¹⁷ between EAPL and AGL Wholesale Gas Pty Ltd. The Gas Transportation Agreement provides a comprehensive arrangement under which EAPL transports gas from Moomba to Wilton (just outside Sydney), facilitating AGL's long-term take-or-pay arrangement with the SA Unit. Under the take-or-pay contract, AGL agreed to take (or pay for) a minimum amount of gas over a 30 year period from the SA Unit. (see the AGL/Cooper Basin authorisation decision: *Re AGL Cooper Basin Natural Gas Supply Arrangements* (1997) 19 ATPR 41-593 at 44-168) AGL distributes the gas it receives under the take-or-pay contract mainly through its distribution network in Sydney. The take-or-pay contract is set to expire in 2006.

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 through the addition of up to six compressor stations).

The capacity of the Moomba to Sydney Pipeline is relatively constrained in parts of the pipeline. The most constrained segment of the pipeline was the segment between Moomba and Young, on which only about 9.9 PJ per year of spare capacity was available for access by third parties. Capacity was less constrained in other parts of the pipeline. (ACCC, 1999a, p. 11) This was because some gas left the main pipeline at Young and entered laterals to supply regional areas of NSW.

EAPL states that it expects more spare capacity will be available as the take-or-pay contract with the SA Unit producers nears expiration and banked gas is consumed. From June 2000, it expects the level of available capacity to increase to about 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 operation of the Eastern Gas Pipeline will reduce demand for transport of gas in the Moomba to Sydney Pipeline, freeing up additional spare capacity. (EAPL, 1999, pp. 11 - 12)

In August 1998, the Interconnect was completed. It links GPU GasNet's gas transmission network in Victoria and EAPL's gas transmission

¹⁶ This Final Recommendation refers to EAPL as the owner of the Moomba to Sydney Pipeline and as a submission-maker.

¹⁷ EAPL has applied for approval of a Gas Transportation Deed to apply in place of the Gas Transportation Agreement from 30 June 2000.

network in NSW through a lateral from Young to Wagga Wagga. Gas can be transported from Longford to Sydney via the Interconnect.

According to LECG's second round submission on behalf of Duke, the capacity of the Interconnect to transport gas to Sydney is almost 5 PJ per year. (LECG, submission 21, p. 31) Through backhaul arrangements, this can be doubled to about 10 PJ per year.

LECG's submission states that the capacity of the Interconnect could be expanded through additional compression and looping to somewhere around 90 PJ in total capacity.¹⁸ It estimates this could be achieved at a capital cost of about \$232 million. (LECG, submission 21, pp. 31 - 32)

AGL has contracted to use the Interconnect to sell around 5 PJ per year of natural gas from the Cooper/Eromanga Basin into Victoria. (EAPL 1999, p. 9)

The Interconnect 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 Longford to Melbourne pipeline, which supplies gas from the Gippsland Basin to Melbourne, is owned by GPU GasNet Pty Ltd. On its completion, the Eastern Gas Pipeline will have an initial capacity of 55 PJ per year, with the ability to expand to a maximum capacity of 110 PJ per year through additional compression. (Duke, 1999, p. 4)

The distribution system in Sydney is owned by AGL and is covered under the National Code.

Tariffs

The price of gas supplied by both the Cooper/Eromanga Basin and the Gippsland Basin is around \$2.35 to \$2.55 per GJ depending on the season and other economic factors. Data on the daily price movement of Gippsland Basin gas is provided by Vencorp. Cooper/Eromanga Basin gas price data is confidential, but figures can be deduced from the Tribunal

¹⁸ 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.

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) would displace approximately an equal amount of gas that could be supplied to NSW.

hearing in the AGL/Cooper Basin authorisation decision 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”. (*Re AGL Cooper Basin Natural Gas Supply Arrangements* (1997) ATPR 41-593 at 44,185) The Port Jackson Partners report for the BCA cited basin price for Cooper/Eromanga Basin gas of \$2.40 in 1999. (Port Jackson Partners, 2000, exhibit 29, facing p. 21)

The Council notes that both basins have been in a position of largely monopoly supply to particular areas (Sydney, regional NSW and Adelaide in the case of the Cooper/Eromanga Basin and Melbourne and regional Victoria in the case of the Gippsland Basin). This means that the historical price of gas from these basins may be above competitive levels.

As the Moomba to Sydney Pipeline is covered under the National Code, EAPL has recently submitted an Access Arrangement for it to the ACCC for approval. The Access Arrangement specifies the transport tariffs that EAPL proposes to charge for transporting gas from Moomba to Wilton outside Sydney. EAPL has proposed a number of tariffs depending on whether delivery is guaranteed for any particular time. In its draft Access Arrangement, EAPL proposes a tariff of 70.8 cents per GJ²⁰ to transport gas from Moomba to Wilton (firm transport at 100 percent load factor).²¹

Duke’s Undertaking to the ACCC specifies the tariffs it is prepared to offer. Under Duke’s current proposed tariffs, it would cost 86 cents per GJ to transport gas from Longford to Wilton outside Sydney (firm transport at 100 percent load factor).²²

Port Jackson Partners’ report for the BCA estimated the delivered price in Sydney of gas from the Cooper/Eromanga Basin was \$3.20, consisting of an ex-Cooper/Eromanga Basin price of \$2.40 and a transmission tariff of 80 cents. (Port Jackson Partners, exhibit 29, facing p. 21)²³ This indicates the transmission tariffs represent approximately 25 percent of the delivered gas price for large users.

As stated earlier, LECG suggests transmission tariffs on the Eastern Gas Pipeline will represent about 26 percent of the delivered price of gas for users in Sydney taking gas in Sydney directly from the Eastern Gas Pipeline. APIA estimates transmission tariffs will represent around 6 to

²⁰ 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. 1GJ = 1PJ/1,000,000.

²¹ Firm transport means transport with the guarantee that the gas will be delivered on the day and at the time specified in the contract. One hundred percent load factor means that the user uses all of the capacity booked by it for any given day or time.

²² Calculations are: Single forward haul rate of \$0.86/GJ to Zone 3, which includes Wilton and Sydney.

²³ GJ prices converted to PJ prices by multiplying by 1000.

15 percent of the delivered price for commercial and residential users (as these users will also pay distribution and retail charges).

Size of NSW market and rate of growth

The likelihood of capacity constraints in the transport of gas to NSW depends on the capacity of the two major pipelines serving that market, the rate of growth in demand in NSW, and the extent of fluctuations in demand. Where transport capacity becomes relatively constrained, the operators of the Moomba to Sydney Pipeline and the Eastern Gas Pipeline may have greater scope to raise tariffs. It is therefore useful to assess the point at which growth is likely to cause capacity to become constrained.

Once the Eastern Gas Pipeline commences operation, the combined transport capacity of the Eastern Gas Pipeline and the Moomba to Sydney Pipeline will initially (that is, excluding additional capacity created through compression and looping) be about 226 PJ per year.

It is difficult to forecast accurately growth in demand in Sydney. This is because demand projections tend to estimate aggregate demand across NSW and the ACT, and because growth in gas-fired electricity generation is unclear.

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 comprehensive AGA study, in 1997, predicted demand in NSW and the Australian Capital Territory as per Table 2 below:

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
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Since 1997, growth in demand for gas has been revised down due to slower than expected growth in gas-fired electricity generation. The AGA's latest forecasts of gas consumption in NSW come from a 1999 study by the National Institute of 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

Capacity Constraints

Capacity constraints are likely to arise well before average demand in NSW rises to the combined capacity of the Moomba to Sydney Pipeline and the Eastern Gas Pipeline. This is because of intraday and seasonal fluctuations in demand which cause short term constraints even where average demand is well below the combined capacity of the two pipelines.

One illustration of the degree of fluctuations is that average demand of about 115 PJ on the Moomba to Sydney Pipeline during 1998/99 resulted in peak demand of about 161 PJ, or about 40 percent above average.

Gas usage fluctuates significantly during the day and according to the season. (International Energy Agency (OECD), 1994, pp. 34 – 35) These fluctuations could 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.²⁴ However, since there are currently no gas storage reservoirs in NSW, and available linepack is limited, peaks in demand must be met out of the 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 residential demand (as residential demand is more dependent on temperatures than industrial demand). 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

²⁴ 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.

(August). On this basis, 1999 monthly production at the Cooper/Eromanga Basin increased 21.4 percent from January to August and monthly production at the Gippsland Basin increased 109 percent. The Gippsland Basin figures reflect colder Melbourne weather and greater variations associated with greater residential use as a share of total use. (Australian Petroleum Production and Exploration Association, 1999)

At least four other operational factors tend to limit the capacity of the Moomba to Sydney Pipeline and the Eastern Gas Pipeline to meet demand:

- the pipelines must supply not only Sydney but places along their routes. 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. This can cause constraints at points along the route of the pipelines; for example, the Moomba to Sydney Pipeline is most capacity constrained on the section from Moomba to Young;²⁵
- where a user's demand is uncertain, it may need to reserve greater capacity than it ends up using. For example, where a factory is unable to predict precisely its demand over a coming period, it may sign a one year contract reserving sufficient capacity to meet its expected maximum daily demand over that year. The factory may be able to sell any unutilised capacity through the secondary market, agree to surrender it back to the pipeline owner for a fee, or write clauses in to the contract to permit it some relief from having to pay for the full amount of its reserved capacity;
- while combined capacity is 226 PJ per year, constraints could arise in one or other of the pipelines at an earlier stage. This would arise, for example, where gas from one basin became much cheaper than from the other basin, leading to a surge in demand for transport of gas through the pipeline connecting the cheaper basin to users; and
- balancing and operational and safety requirements which reduce available capacity.²⁶

Determining the point at which capacity is likely to become constrained is guided by examining the patterns of demand for transport capacity in the Moomba to Sydney Pipeline and other pipelines.

²⁵ On the section from Moomba to Young, the Moomba to Sydney Pipeline reaches close to full capacity at times of peak demand, while on the section from Young to Wilton it only reaches about 70 percent during times of peak demand.

²⁶ Changes in weather can also affect the transport capacity of pipelines. In summer, natural gas expands, reducing the transport capacity of a pipeline, while in winter, natural gas contracts. This can partially offset additional demand in winter.

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 (as the Moomba to Sydney Pipeline did in 1999), 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

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 may give rise to constraints as early as 2005.

Costs of Expanding Capacity

LECG provides estimates of the cost of adding incremental capacity to the Interconnect, the Eastern Gas Pipeline, and the Moomba to Sydney Pipeline.

LECG estimates it would cost \$232 million to expand the capacity of the Interconnect by 85 PJ to 90 PJ per year, \$88 million to expand the capacity of the Eastern Gas Pipeline by 55 PJ to 110 PJ per year,²⁷ and \$61 million to expand the capacity of the Moomba to Sydney Pipeline by 47 PJ to 219 PJ per year. (LECG, submission 21, p. 32 and p. 36)²⁸

The Council has sought to compare the incremental costs over a comparable range. The LECG submission provides estimates for expanding the capacity of the Interconnect by 40 PJ per year, the Eastern Gas Pipeline by 40 PJ per year, and the Moomba to Sydney Pipeline by 47 PJ per year. Over these ranges, the incremental cost of expanding capacity for the Interconnect is \$4.175 million per PJ, for the Eastern Gas Pipeline is \$1.6 million per PJ, and for the Moomba to Sydney Pipeline is \$1.30 million per PJ. (LECG, submission 21, p. 32 and p. 36)

These figures indicate the incremental costs of adding capacity to the Eastern Gas Pipeline and the Moomba to Sydney Pipeline are much lower than for adding capacity to the Interconnect across all ranges of additions to capacity.²⁹

Conclusion

In conclusion, it appears that even after the Eastern Gas Pipeline becomes operational, the NSW gas industry will continue to be highly concentrated. Ownership will continue to be highly concentrated in production, transmission, and distribution.

Based on operational requirements and forecasts of gas demand in the NSW market, it appears likely that the current installed pipeline capacity of the Moomba to Sydney Pipeline and the Eastern Gas Pipeline (around 226 PJ per year) will be absorbed somewhere between 2005 and 2010.

²⁷ calculated from LECG's estimate that the cost of adding 1 PJ on the Eastern Gas Pipeline is \$1.6 million.

²⁸ On these figures, the approximate incremental costs per PJ of capacity for the Interconnect are \$2.73 million, for the Eastern Gas Pipeline are \$1.6 million, and for the Moomba to Sydney Pipeline are \$1.26 million.

²⁹ According to the figures supplied by LECG, the incremental cost of expanding the capacity of the Interconnect is \$2 million per PJ to add 15 PJ, \$3.67 million per PJ to add 30 PJ, \$4.175 million per PJ to add 40 PJ, and \$2.73 million per PJ to add 85 PJ. The cost of expanding the capacity of the Moomba to Sydney Pipeline is \$1.46 million per PJ to add 11 PJ, \$1.30 million per PJ to add 29 PJ, \$1.30 per PJ to add 47 PJ, \$1.26 million per PJ to add 66 PJ, and \$1.26 million per PJ to add 84 PJ. The incremental

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 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

In interpreting the coverage criteria, the Council has had regard to a number of matters.

First, the Council has had regard to the objectives underlying the Gas Access Acts.³⁰ Guidance on these objectives can be found by examining the preambles to each of the Gas Access Acts. The preambles to the Commonwealth, NSW, and Victorian Gas Access Acts are functionally equivalent.

Second, pursuant to section 10.5 of the National Code, the Council has had regard to the introduction and overview to section 1 of the National Code:

- where the meaning of the provision in section 1 appeared clear, to confirm the ordinary meaning conveyed by the text of the provision; or
- where the Council considered the provision was ambiguous or obscure, or the ordinary meaning would lead to a manifestly absurd or unreasonable result, to determine the meaning of the provision.³¹

Third, the Council has had regard to decisions of the Tribunal in relation to applications for declaration under Part IIIA. This is because, apart from some variations (the significance of which are discussed below), the words of the declaration criteria in sections 44G(2) and section 44H(4) of the TPA are the same as the words of the coverage criteria.

The declaration criteria have been considered by the Tribunal in the Australian Union of Students decision (*Re: Application for review of the decision by the Commonwealth Treasurer & published on 14 August 1996 not to declare the "Austudy Payroll Deduction Service" under Part IIIA of the Trade Practices Act 1974; by the Australian Union of Students [1997] ACompT 1 (28 July 1997); (1997) 19 ATPR 41-573*) and the Sydney

cost of add capacity to the Eastern Gas Pipeline is estimated at \$1.6 million per PJ across the range: LECG, submission 21, p. 32 and p. 36.

³⁰ section 33, *Interpretation Act, 1987* (NSW); section 35, *Interpretation of Legislation Act, 1984* (Vic).

³¹ section 34, *Interpretation Act, 1987* (NSW); section 35, *Interpretation of Legislation Act, 1984* (Vic)

Airports decision, (Australian Competition Tribunal, 2000). This Final Recommendation refers in particular to the Sydney Airports decision.

The Council has been conscious of the relevant standard it should apply in forming a view on whether it is satisfied that the criteria for coverage are met.

Duke has argued, through its submission prepared by LECG, that a very high burden of proof is imposed on the Council because the Council can only recommend certification if all of four criteria are met (LECG, submission 21, p. 12). LECG has also argued that:

- the Council should work from a presumption of no coverage;
- the Council bears the onus of proof to show that each of the criteria hold separately; and
- the relevant standard of proof can be equated to the criminal standard of “beyond any reasonable doubt” (LECG, submission 21, pp. 12 - 15).

The Council does not accept these arguments.

It is clear from the words of the National Code that the Council must be affirmatively satisfied that all four of the criteria in section 1.9 are met before it can recommend coverage and that if the Council is not satisfied that one or more of the criteria are met it must recommend that the Pipeline not be covered.

Notions of onus of proof do not assist in the Council's consideration of the matter. Under the National Code the Council is required to be “*satisfied*” of each of the relevant criterion.

The Council accepts that:

- the subject matter and the consequences which flow from a recommendation are relevant to the degree to which the Council must be satisfied.
- it is not bound by an rigid rules but must apply its mind to the facts of the individual case and form a considered judgement upon them in light of the knowledge of the conditions surrounding the situation including the circumstances and likelihood of error.³²

Where the Council is not satisfied that facts exist which warrant that a recommendation be made (that is, that the criteria are satisfied) it must recommend that a pipeline not be covered. As noted by the Tribunal in the

³² Duke, submission 25.

Sydney Airports decision, the criteria in section 44H of the TPA are matters of which the Tribunal must be affirmatively satisfied.

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 or scope across a broad range of output. In other words as output from a natural monopoly facility 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 mirrors 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 it intended to replicate the words of section 44G.³³

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 liquefaction of natural gas and transport by ship might provide the service of gas transportation

³³ See GRIG Policy Paper on the National Gas Access Regime, p. 7, quoted in National Competition Council, 1997, p. 13.

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 these differences 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 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, etc 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.³⁴

The application seeks coverage of the whole of the Eastern Gas Pipeline including its two laterals to Port Kembla and Smithfield. The Council has

³⁴ Section 2, GPAL read together with section 10.8 of the National Code.

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.³⁵ 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.³⁶

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 all the services provided by the pipeline, including the services of its laterals. Consequently, for the purposes of this Final 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.

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.³⁷ 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.

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.

³⁵ Section 1.7, National Code.

³⁶ Section 1.9, National Code.

³⁷ Section 10.8, National Code

Interconnection is the right to join other pipelines with the relevant pipeline (the subject of the coverage application). 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.

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.

Pipelines that could Provide the Services

There are two possible approaches to interpreting “services provided by means of the Pipeline”. On a literal interpretation of the term “services provided by means of the Pipeline”, it could be said that the relevant “services” are by definition 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.

The Council’s preferred 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 services that compete with the services provided by means of the Pipeline. This approach is consistent with the express 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:

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. (Introduction to National Code)

This objective draws upon the principles enunciated in the Hilmer Report (Hilmer Report, 1993, pp. 240 - 249) for the development of a legal right of access to bottleneck (natural monopoly) infrastructure to facilitate competition in related markets. The essential ingredients of these principles are:

- (a) the efficient utilisation of monopoly infrastructure (such as gas pipelines);
- (b) the efficient development of new infrastructure; and
- (c) the promotion of competition in related markets.

Criterion (b) would appear to be designed to identify potential coverage of 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) should not be covered.

This approach is also consistent with that of the Tribunal in the Sydney Airports decision. The Tribunal held that “another” facility must be one capable of providing services competitive with those provided by the relevant facility. Services which are merely complementary to those provided by the relevant facility should not be regarded as 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 competing services.

Economic to Develop Another Pipeline

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

In considering this issue, the Council needs to consider whether it is appropriate to take into account *existing* pipelines as well as the construction of *new* pipelines to provide competing services.

The words “develop another pipeline” to provide the services should be interpreted in the context of the objective of the legislative scheme. If, as discussed above, the main purpose of criterion (b) is to identify for

potential coverage, pipelines where the development of competing pipelines would be inefficient, then it seems appropriate to take account of other existing pipelines in addressing this criterion.

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

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). Thus, an existing pipeline with relevant constraints or deficiencies could be ‘developed’ to provide competing services where previously it did not. Further, the existence of a pipeline which already provided services which were competitive, or would be competitive, with the services of the pipeline the subject of the coverage application could also be said to defeat any scope that criterion (b) could be satisfied. The notion of ‘develop’ may not require any physical changes to the existing pipeline, merely the recognition that it provided, or could provide, competing services.

The Council concludes that where an existing pipeline already provides, or could provide with minor modifications or enhancements, services which are competitive with the services of the pipeline the subject of the coverage application, criterion (b) will not be satisfied.

Accordingly, the Council has to take into account whether the Moomba to Sydney Pipeline or the Interconnect do or could provide competing services, whether or not this required some enhancement to the existing capacity of the other pipelines.

Another consideration in determining the range of pipelines that might provide competing services is the possibility that other pipelines might provide services that compete with those provided by *part* of the Eastern Gas Pipeline.

Section 1.7 grants the Council some discretion to determine the extent of coverage, providing:

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 ...

On this basis, the Council considers that it is appropriate to take into account the Wilton to Horsley Park pipeline owned by AGL Distribution.

This is because, once the Eastern Gas Pipeline is built, the two pipelines will run parallel between Wilton and Horsley Park.³⁸

Meaning of “Market”

Services that compete are services that are substitutes for each other, that is, services that operate in the same market. Essentially the question for the Council is what other pipelines provide substitutable services for the services of the Eastern Gas Pipeline.

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 the Tribunal's and the Court's consideration of Part IIIA.

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)

This view of market was adopted by the Tribunal in the Sydney Airports decision, (Australian Competition Tribunal, 2000, page 38) and has been accepted by the High Court in the *Queensland Wire* case. (*Queensland Wire Industries Pty Ltd v The Broken Hill Proprietary Ltd and Another* (1989) 167 CLR 177)

Dimensions of Markets

The relevant dimensions of markets include:

- the product market, that is 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

³⁸ 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 2002 it will be classified as a transmission pipeline.

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 definition focuses on the different steps in a production process. In defining functional markets, the Council has had regard to the Tribunal's approach to functional market delineation in the Sydney Airports decision which is consistent with the approach identified by Professor Maureen Brunt (Brunt 1990) and further developed by Professor Henry Ergas, (Ergas 1997, pp. 1 - 3).³⁹ The Council considers that the two following conditions must be satisfied before markets can be regarded as functionally separate:
 - 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 are so large 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 will not be in functionally separate markets. (Australian Competition Tribunal, 2000, pp. 39 - 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

³⁹ See, for example, the test of involvement and test of influence proposed in Smith and Walker, (1998).

of markets, the Council generally has regard to long-run rather than short-run substitution possibilities.

Services provided by the Eastern Gas Pipeline and competing services

There are two possible approaches to describing the relevant pipeline service so as to determine what pipelines might provide services competitive with those offered by the Eastern Gas Pipeline.

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 South East Australia (see below for analysis of the relevant 'other market'), that is the South Eastern Australian gas sales market. At present that service could be said to be provided at least by the Moomba to Sydney Pipeline and the Interconnect, and arguably the Moomba to Adelaide pipeline as it also provides transmission services into the South East Australian gas sales market.

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 service definition should include all sources of competition in those relevant markets. The fact that natural sales gas is homogeneous (as required under the National Code) may be said to support this broad approach.

There is no doubt that the product of natural gas, whatever its source, has the physical characteristics to satisfy customers requirements. However, that does not say anything about the price elasticity of different gas transmission services. In other words, purchasers may be indifferent to the physical characteristics of gas from different sources, but the terms and conditions on which the gas from different fields is offered for sale may mean that purchasers are not indifferent to the identity of the particular seller and therefore the source of supply. For example, a gas user in Sydney may be offered supply under attractive terms by particular producers. In that case, the start and end points of the gas transportation service may be important considerations because only one pipeline might connect that gas user to those producers. This is a question of substitution between transmission services (and is considered further below), rather than service description.

This argument is the foundation for the second approach to service description, which involves defining the relevant service in terms of both the start and end points (or regions) of the service. On this approach the Eastern Gas Pipeline would provide gas transportation services from Longford to Sydney and potentially to destinations in between.

Arguments to support the second approach to service definition include:

- It does not rely on the fact that sales 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. This is true even for other homogeneous products such as wheat. A rail line from Swan Hill in Victoria to the port facilities in Geelong may not provide a useful service for a wheat grower in Griffith who wanted to bring his wheat to Geelong.
- Gas transportation services within a market are important to competition in that market. Access to these services may be required to integrate the fields of rivalry in gas sales. Coverage under the National Code may be required to enhance competition in that market. Given the geographic breadth of the gas sales market, adopting the first approach automatically removes the scope for coverage.
- The second approach to service definition is consistent with the approach 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. (Brattle Group, 2000, p. 19)
- The second approach better supports the objectives of the National Code. 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.

The Council concludes that, for the purpose of identifying competing transmission services, the services of the Eastern Gas Pipeline are those related to the transportation of natural gas between Longford and Sydney, including all possible destinations between these two locations proximate to pipeline.

This approach to the description of the relevant transmission services provided by the Eastern Gas Pipeline does not, however, exclude the possibility that other services, such as those provided by the Moomba to Sydney Pipeline, are competitive with the services of the Eastern Gas

Pipeline; that is that those other services are in the same market as the services provided by the Eastern Gas Pipeline.

Moomba to Sydney Pipeline

For users in Sydney, the Moomba to Sydney Pipeline might be considered to provide substitute transmission services for the services of the Eastern Gas Pipeline if users will readily obtain gas from the Cooper/Eromanga Basin, rather than from the Gippsland Basin, in response to a small but significant non-transitory change in relative prices for gas transmission services in favour of the Moomba to Sydney Pipeline. Such price responsiveness of demand for gas transmission services would mean that the services of the Moomba to Sydney and the Eastern Gas Pipeline pipelines are with the same 'field of rivalry'.

Ideally, testing for the price responsiveness of demand for different services is conducted by quantitative analysis, by calculating cross-elasticities of demand for the respective services.⁴⁰ Where this is not available, the conduct of market participants is examined from a range of perspectives.

For many people wanting to use the Eastern Gas Pipeline, the Moomba to Sydney Pipeline will not be a ready substitute.

First, for the producers in each basin, the two pipelines do not provide substitute services. Gas from the Cooper/Eromanga Basin cannot be moved into Sydney using the Eastern Gas Pipeline, nor can gas users along the route of the Eastern Gas Pipeline south of the ACT use any other pipeline to obtain their gas supplies. Woodside argued that:

It is insufficient to assert that the existence of alternative gas pipeline routes to Sydney, for example, will of itself provide an adequate degree of competition. The Eastern Gas Pipeline and Moomba to Sydney Pipeline do not compete in point to point transmission services, they merely have a common termination point, and run in parallel for a minor percentage of their respective lengths. (Woodside, submission 22, p. 2)

Second, for gas users with contracts with particular producers the two pipelines may not provide effective substitute services. This is because gas supply may be available from a producer in one basin on more favourable

⁴⁰ A cross-elasticity of 0 indicates a change in the price of one product has no effect on demand for the second product, while a change of 1 indicates that a change in the price of the first product has an equal effect on demand for the second product. Low cross-elasticity of demand between two products suggests they are not in the same market. A negative cross-elasticity suggests that the goods are complementary, that is people tend to buy both or neither, and that the products are not in the same market.

terms than from producers in the other basin. Submissions from some gas users support this point. Great Southern Energy notes that "... regard must be had to the start and end point of the gas transportation service, not least because only one pipeline may connect a gas user to a producer of gas and, as a result, neither of these parties have any choice as to how to transport their gas." (Great Southern Energy, submission 19, p. 4) Similarly, Origin Energy (in its submission on the application for revocation of coverage of parts of the Moomba to Sydney Pipeline) argues that "... for suppliers taking delivery of product from the Cooper Basin the EGP service is not a substitute for the MSP." (Origin, 2000, p. 2)

Third, gas users' ability to switch between suppliers of both gas and gas transmission services are limited by contractual arrangements. NECG's attachment to EAPL's application for revocation of coverage of parts of the Moomba to Sydney Pipeline notes that contractual complexities (such as the common use of medium to long-term contracts and significant take-or-pay components) may make it more difficult for one pipeline rapidly to pick up market share. NECG notes that a gas retailer wishing to switch from one pipeline to another would face the necessity of also switching sources of gas supply, and vice versa. (EAPL, 2000b, p. 13)

It is likely that for some users, the services of the Eastern Gas Pipeline and the Moomba to Sydney Pipeline will be effective substitutes because those users are indifferent as to whether gas is supplied from the Cooper/Eromanga Basin or Bass Strait fields. However, the Council does not consider that this is sufficiently the case for all users of the pipelines so as to integrate the field of rivalry for the services of the two pipelines. Therefore, the Council concludes that the services of the Moomba to Sydney Pipeline are not effective substitutes for the services of the Eastern Gas Pipeline. As a consequence, the existence of the Moomba to Sydney Pipeline does not refute the proposition that it is uneconomic to develop another pipeline to provide the services of the Eastern Gas Pipeline.

The Interconnect

It is necessary for the Council to consider whether the Interconnect currently provides competing services to those provided by the Eastern Gas Pipeline, or whether it could be economically developed to provide competing services.

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.⁴¹ The Institute of Public Affairs (IPA) submission argues that gas travelling over the Interconnect currently provides modest competition in Sydney. (IPA, submission 1, p. 8)

With its current configuration the Interconnect has a capacity of approximately 5 PJ per year, but with backhaul up to 10 PJ per year could be sold from Longford to Sydney (LECG, submission 21, p.31, TJ/day converted to PJ per year). Any increases in these totals could only be achieved through significant capital expenditure by both EAPL and GPU GasNet, and on LECG's estimates, at much higher average cost per PJ of additional capacity than the cost of adding capacity to the Eastern Gas Pipeline or the Moomba to Sydney Pipeline.

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, argues, *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)

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 demand in the gas sales market. On the basis of the available evidence, in particular the presence of spare and developable capacity on the Eastern Gas Pipeline, capacity constraints on the pipes either side of the Interconnect, and the higher cost of adding capacity to the Interconnect compared to the Eastern Gas Pipeline or the Moomba to Sydney Pipeline, the Council considers that such an expansion would be unlikely to be economic in the foreseeable future.

For some users the Interconnect may provide a substitute service to the Eastern Gas Pipeline; the transport of gas from Longford to Sydney. The capacity of this service is limited and is not likely to be economic to expand the service in the foreseeable future. It is also clear from the route taken by the Interconnect to Sydney, that it cannot provide a gas transportation

⁴¹ Roughly two-thirds or about 4.4 PJ per year on current configuration.

service to those potential users situated along the route of the Eastern Gas Pipeline. These limitations mean that for the majority of potential users of the Eastern Gas Pipeline, the Interconnect will not provide a good substitute, though it may for some users.

The Council concludes that the Interconnect may provide a very limited competing service, but that it would not be economic to develop the Interconnect further to provide services that compete to a greater extent. For some of the services of the Eastern Gas Pipeline, those related to destinations south of the ACT, the Interconnect does not provide any competing services.

Therefore, the Council concludes that the current services provided by the Interconnect and the possible development of infrastructure to increase those services does not refute the proposition that it is uneconomic to develop another pipeline to provide the services of the Eastern Gas Pipeline.

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 pipeline 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 would conclude that criterion (b) is not satisfied.

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.⁴² There are at least two possible explanations

⁴² In *Unlocking the Infrastructure*, Stephen King and Rodney Maddock discuss the possibility of inefficient duplication of natural monopoly infrastructure. “With natural monopoly technology it is socially desirable for all the output of a particular product to be produced by only one firm. It is always cheaper to produce any relevant output level with one firm than with more than one firm. However, this does not mean that there will only be one firm operating in the industry. When deciding whether or not to enter an industry, a new firm will take into account the likely post-entry reactions of any incumbent. If incumbent firms respond aggressively then any potential entrant may face significant losses. In such a situation, successful entry is unlikely. Conversely, if incumbent firms tend to

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)

NERA quote a news release of 5 January 2000 by Duke that states:

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. NERA's view was that 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)

Both the AGL and the Duke Wilton to Horsley Park pipelines exhibit natural monopoly characteristics, in that either of them individually can fully meet the demands of the market at less cost than through construction of a second pipeline. The fact that a second pipeline has already been constructed does not alter this.

accommodate a new entrant then entry will be an attractive proposition." (King and Maddock, 1996, pp. 72-73.)

The Council concludes that:

- AGL's Wilton to Horsley Park pipeline provides services that will compete with the Wilton to Horsley Park part of the Eastern Gas Pipeline;
- but that the duplication of AGL's Wilton to Horsley Park pipeline by Duke in fact constituted uneconomic development and therefore the duplication does not refute the proposition that it is uneconomic to develop another pipeline to provide the services of the Eastern Gas Pipeline.

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 spare capacity in the Eastern Gas Pipeline;
- whether current and projected levels of demand are most cheaply supplied by the Eastern Gas Pipeline or more than one 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).

The Eastern Gas Pipeline 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 construction, have 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. (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.

Conclusion

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 at current and reasonably anticipated levels of future demand, and therefore that criterion (b) is met.

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 create better conditions or a better environment

for competition in at least one market other than the market for the services of the gas pipeline.

Before it concludes that a pipeline meets this criterion, the Council must be satisfied 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 a more competitive environment in that other market.

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.

Separate Markets

The services provided by the Eastern Gas Pipeline were defined under criterion (b) as the services related to the transportation of natural gas between Longford and Sydney (and points in between).

In determining whether these services are in the same or different markets from the one/s in which competition is likely to be promoted, the Council applies the test outlined above under the discussion of the functional dimension of markets.

There are a number of potential markets that may be affected by coverage of the Eastern Gas Pipeline, in particular the markets encompassing the activities of gas exploration, production, processing, reticulation, wholesaling and retailing.

In assessing the relevant dimensions of this market or these markets, the Council has taken into account decision of the Tribunal in the AGL/Cooper Basin authorisation decision. (*Re AGL Cooper Basin Natural Gas Supply Arrangements* (1997) ATPR 41-593 at 44,209 – 44,212) In that decision, the Tribunal identified a number of gas related markets as part of its assessment of the market served by natural gas supplied by the Cooper/Eromanga Basin to Sydney via the Moomba to Sydney Pipeline.

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 the then prospective Interconnect and the Longford to Sydney pipeline would be constructed. This makes the Tribunal’s market definitions relevant to the Council’s consideration of this application.

The Council has also had regard to the ACCC Determination in respect of the Mereenie Gas Producers’ application for authorisation. (ACCC, 1999c)

The most likely market in which access or increased access to the services of the Eastern Gas Pipeline may promote competition is the market within which gas sales take place.

In defining the relevant market in which sales of natural gas take place, the Council examined:

- whether the relevant market was a natural gas sales market or an energy sales market;
- whether there are a number of functional levels within which sales of natural gas occur (eg wholesale, retail); and
- the geographic extent of this market (eg whether it is contained to Sydney, to NSW, or extends to South East Australia).

Electricity as a Substitute for Gas

In the AGL/Cooper Basin authorisation decision, the Tribunal examined the extent of substitution between electricity and gas in defining the nature of the market within which natural gas existed. The Tribunal

considered gas and electricity were not substitutes (though to some extent the demand for gas related to the demand for electricity) and that a separate natural gas market existed with competition from other forms of energy at the margins.

The Tribunal considered that over time gas and electricity markets were likely to converge, resulting in the eventual creation of a broader energy market. (*Re AGL Cooper Basin Natural Gas Supply Arrangements* (1997) ATPR 41-593 at 44,197 – 44,199)

In assessing the extent of convergence at the present time between gas and electricity, the Council examined submissions by parties, and available evidence of the cross-elasticity of demand between gas and electricity.⁴³ Submissions by NECG, LECG, APIA, and Incitec addressed this issue. APIA's submission argued that the gas and electricity markets were rapidly moving to convergence within an energy market, while the submissions from LECG and NECG suggested that while the markets may not have converged, electricity prices significantly constrain the pricing of gas transmission tariffs on the Eastern Gas Pipeline (and other pipelines).

The price of electricity affects the price of gas on a number of levels. First, 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. Second, 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.

One benchmark for assessing the extent of convergence is whether gas is used to a significant degree in generating electricity. Gas-fired electricity generation plants convert gas to electricity. Where businesses decide to use gas for electricity generation, then for some part of the energy market gas and electricity can be characterised as substitutes.

NECG agreed with the view expressed in the Council's Draft Recommendation that electricity and gas were not within the same market, but argued that the electricity market exerted substantial constraint over the gas market because prices for delivered gas (which includes the transport tariff on gas) are disciplined by the prices prevailing in the electricity industry and new gas fired electricity generation represented an important new source of potential revenue to pipeline service providers. However, it noted that the entry of a new gas-fired electricity generator in NSW or Victoria was unlikely at the moment

⁴³ Cross-elasticity measures the change in demand for one product when the price of another changes. If demand for a product goes up strongly when the price of another rises, then this would suggest a high cross-elasticity of demand, that the two goods are regarded as close substitutes, and that they exist in the same market.

because of the state of excess supply of electricity generation in those States.

In a letter to the Council dated 2 May 2000, Duke supplied analysis drawn from a 1996 AGA study of the cross-elasticity of demand between electricity and gas.⁴⁴ It noted that this study was performed on 1973-74 to 1993-94 data. The AGA study indicated that the percentage change in demand for electricity based on a one percent change in the price of gas was, in aggregate:

- for the residential sector, 0.15;
- for the commercial sector, -0.03; and
- for the industrial sector, 0.00.

These figures indicate very low cross-elasticity of demand between gas and electricity, in other words that changes in the price of gas *do not* significantly add to growth in demand for electricity.

The evidence before the Council leads it to the view that gas and electricity remain in separate markets. 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.

Relevant Functional Levels within the Natural Gas Industry

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/Eromanga 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.

⁴⁴ The study was AGA (1996) *AGA Research Paper No 3 – Price Elasticities of Australian Energy Demand*.

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. The emergence of independent retailers in Australia since the deregulation of the gas industry supports this view.

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.

Geographic Dimension of Gas Sales 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 in Part B of this Final Recommendation.

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 been able to offer a limited amount of gas to the Sydney, Canberra and regional NSW areas, in competition with the Cooper/Eromanga 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 may 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. In this case, coverage of these pipelines, by ensuring access on reasonable terms and conditions, helps to integrate these regions into the field of rivalry for gas producers in South East Australia, and thus into the South East Australian gas market. Regions served by the Eastern Gas Pipeline which cannot be reached by other pipelines include Bombala, Cooma, Orbost, and Bairnsdale.

The Council considers the market in which the services provided by the Eastern Gas Pipeline exist (the market for gas transport services between Longford and Sydney) is separate from the South East Australian gas sales market.

First, different parties typically participate in these two markets. Gas users and producers do not need to enter the market for transportation of gas between Longford and Sydney in order to buy and sell gas in the South East Australian gas sales market.

Second, the market in which the Eastern Gas Pipeline operates involves the use of highly specialised pipeline facilities quite distinct from those required in the gas sales market.

Whether Access would Promote Competition in Another Market

The Tribunal has provided some guidance on the meaning of “promote competition”. In the Sydney Airports decision, the Tribunal considered 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) 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 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. 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 declaration test endorsed by the Tribunal (Australian Competition Tribunal, 2000, p. 69) is what are the with and without coverage counterfactuals.

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

It was noted above that the Eastern Gas Pipeline served a number of regional centres south of the ACT such as Bombala, Cooma, Orbost, and Bairnsdale where it was in a monopoly position because it would not be economic for other pipelines to serve these 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.

Backhaul to these regional centres does not open up greater possibilities for competition than forward haul because backhaul requires access to the services of the Eastern Gas Pipeline in the same way as forward haul.

Competition in the South East Australian Gas Sales Market

Given the views adopted above about the services provided by the Eastern Gas Pipeline, and the potential other markets in which access may promote competition, the key question for the Council under this criterion is whether access or increased access to the services of the Eastern Gas Pipeline would promote competition in the South East Australian gas sales market.

Submissions supporting Coverage

The Council received a number of submissions from potential and actual producers and buyers in the South East Australian gas sales market, as well as from peak bodies of large and small energy users. Submissions were received from the Public Interest Advocacy Centre (PIAC), the Energy Markets Reform Forum (EMRF), the Australian Gas Users' Group (AGUG), Great Southern Energy, Woodside, and Incitec.

The essence of the first round submissions from groups such as AGUG, PIAC, and EMRF was that coverage of the Eastern Gas Pipeline would promote price transparency and a better informed market. The essence of the second round submissions was that producers and major users needed certainty in relation to access tariffs in order to make investments in upstream and downstream markets.

Woodside stated that it was interested in access to the Eastern Gas Pipeline as part of its plans to develop the Kipper field. It argued that:

Gas markets need competitive delivered gas prices in order to develop. The delivered gas price comprises two major components: the gas sales price and the transmission tariff. Basin to basin competition will provide much of the potential needed to maintain competitive gas prices. ... given the relatively underdeveloped state of Australia's gas pipeline infrastructure, and the desire for competition at all levels of the gas market, Woodside submits that the EGP should be subject to coverage under the [National] code for its entire length. (Woodside, submission 22, p. 1)

In relation to criterion (a), it submitted:

It is insufficient to assert that the existence of alternative gas pipelines to Sydney ... will of itself provide an adequate degree of competition. The EGP and the EAPL [Moomba to Sydney Pipeline] do not compete in point to point transmission services,

they merely have a common termination point, and run in parallel for a minor percentage of their respective lengths. (Woodside, submission 22, p. 2)

Great Southern Energy made a submission as an electricity retailer in NSW with interests in natural gas retailing in NSW and Victoria, and gas distribution in Wagga Wagga. It argued that “coverage would increase the overall usage of natural gas by protecting users from abuse of market power”. (Great Southern Energy, submission 19, p. 1) Its submission emphasised the “importance of medium to long term certainty [of transmission tariffs] in relation to the potential for new entry ... into the markets for the wholesaling and retailing of natural gas”:

In Great Southern’s view, it is less likely that entities would seek to enter the markets for the wholesaling and retailing of natural gas if the long term structure of pipeline tariffs and applicable access terms were uncertain.

... if the Eastern Gas Pipeline and the Moomba to Sydney Pipeline were both covered under the Access Code then it is more likely that new entrants would be attracted to the gas wholesaling and retail markets as it would be easier for them to secure transmission capacity into these markets (Great Southern Energy, submission 19, p. 2)

Incitec operates a major ammonia manufacturing plant in Newcastle which uses about 10 PJ per year of natural gas. It argued that investment in ammonium production in Australia crucially depended on the delivered price of natural gas, and therefore partly on transmission tariffs. Incitec considered that if the Eastern Gas Pipeline and the Moomba to Sydney Pipeline were not covered, then the resulting “duopoly competition” would “produce a price somewhere between monopoly pricing and a perfectly competitive market”. It submitted that “[r]egulation, if properly effected, [could] eliminate this “duopoly rent”. (Incitec, submission 23, p. 2)

Submissions opposing coverage

The Council received submissions from CMS, GGT Pty Ltd, Duke, LECG (on behalf of Duke), NECG (on behalf of Duke and EAPL), the IPA, and Energy Australia opposing coverage of the Eastern Gas Pipeline.

The essence of first round submissions from parties such as the IPA and Energy Australia was that the entry of the Eastern Gas Pipeline would result in a competitive market-place for gas sales, that coverage would dampen the incentives for new entry and that the provisions of the National Code undermined innovative services and entrepreneurship.

Second round submissions from LECG, NECG, CMS, and GGT Pty Ltd responded to the conclusions of the Council's Draft Recommendation on the potential for parallel pricing behaviour by Duke and EAPL and argued that Duke faced incentives to compete aggressively to increase throughput on the Eastern Gas Pipeline.

LECG argued the entry of the Eastern Gas Pipeline would create much more competitive conditions in the South East Australian gas sales market. It said Duke faced incentives to price access to the Eastern Gas Pipeline competitively in order to break into the market for transport of gas to NSW.

LECG pointed to a number of features of the market-place following the entry of the Eastern Gas Pipeline:

- competition from the Moomba to Sydney Pipeline;
- the amount of spare capacity, which provides incentives to cut tariffs and boost volumes;
- the Eastern Gas Pipeline's "independence from production and distribution";
- "the potential entry of new pipelines (eg the proposed PNG-Brisbane pipeline being extended to Sydney)";
- "the existence of the Interconnect pipeline from Victoria";
- "the ability of gas producers to delay production or divert to other markets (e.g. Victoria and Tasmania) or use the Interconnect (at expanded capacity) to deliver to Sydney"; and
- "the ability of gas users to switch to electricity over the short- and medium-term". (LECG, submission 21, p. 5)

NECG's submission concentrated on two issues: the likelihood that Duke and EAPL would engage in parallel pricing behaviour following the entry of the Eastern Gas Pipeline; and the extent to which electricity prices constrain gas transmission tariffs. (NECG, submission 20, p. 15)

NECG suggested that where parties seek to set up parallel prices, there are incentives for one or other of the parties to cheat in order to take market-share. It said parallel pricing behaviour (it uses the term "tacit collusion") was more likely where:

- "players can react quickly to punish behaviour";
- "it is easy to detect deviations in behaviour"; and

- “players have the ability to coordinate punishments or there are few players”. (NECG, submission 20, p. 15)

In this case, NECG noted there would be two pipelines providing gas transportation capacity into NSW but argued that there were particular features of the marketplace that made punishment difficult:

- *there is a large gap between average costs and marginal costs [of provision of capacity on the two transmission pipelines] so a punishment strategy in which one pipeline reduced its prices to marginal costs would be extremely costly for that pipeline. This suggests that such a punishment strategy lacks credibility;*
- *punishment strategies by the competing pipeline may take a substantial period before they become effective – for example, customers often buy transmission capacity on long-term contracts – raising the cost and reducing the credibility of punishment;*
- *in the absence of access rules that facilitate the dissemination of pipeline prices, prices may be somewhat hidden – price secrecy mitigates against collusive outcomes ... ; [and]*
- *gas transmission pricing has a number of different elements. There are several different transmission services involved, the contracts are generally for several years and the structure of pricing (e.g. take-or-pay provisions) can have a significant impact on the customers’ marginal costs – product heterogeneity reduces the risk of tacit collusion. (NECG, submission 20, pp. 15 – 16)*

Analysis of Incentives to Compete

In considering whether access to the services of the Eastern Gas Pipeline will promote competition in the South East Australian gas sales market the Council has examined the incentives the Eastern Gas Pipeline has to compete in the absence of coverage under the National Code.

In this regard, the Council accepts LECG’s and NECG’s arguments that certain factors militate against the contention that the Eastern Gas Pipeline’s market power in transmission services constrains competition in the South East Australian gas sales market:

- As noted above, 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.
- There will be some surplus transmission capacity to supply the gas sales market for at least several years. This may encourage pricing of

transportation tariffs down to short-run marginal cost during this period.

However, a number of factors tend to indicate the Eastern Gas Pipeline will have market power once it is built. In particular, there is little risk in the short to medium term of entry by a third pipeline because:

- the relatively slow market growth in NSW and the possibility of expanding capacity in the Eastern Gas Pipeline up to 110 PJ per year, and in the Moomba to Sydney Pipeline up to 270 PJ per year at costs much lower than the cost of building a new pipeline into NSW. This is likely to discourage the construction of new pipelines from gas basins currently supplying gas to NSW or from gas basins in the Timor Sea and PNG; and
- the Interconnect has little potential to compete with the Eastern Gas Pipeline in view of the costs of upgrading it to sufficiently increase the pressure in the Victorian and NSW networks (and the competing uses for the additional capacity created through increased pressure).

The low risk of entry by a third party demonstrates the prospect that the Eastern Gas Pipeline may be able to execute a strategy of pricing capacity above competitive levels in anticipation that the Moomba to Sydney Pipeline will follow a similar strategy. Successful execution of this strategy would result in a less than competitive market and greater profits for both pipelines.

Particular features of the market place would assist this strategy:

- the fact that the investment in the Eastern Gas Pipeline is sunk means it cannot be forced out of the market, making accommodation more likely;
- 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. On the other hand, the Council notes that EAPL could increase the capacity of the Moomba to Sydney Pipeline; and
- Duke and EAPL will have significant bargaining power in negotiations with producers or gas users.

Further, NECG's report attached as part of EAPL's application for revocation of coverage of the Moomba to Sydney Pipeline nominated further factors that would assist in the implementation of a parallel pricing strategy:

- *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 vice 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)*

In its submission to the Council (as distinct from its report attached to EAPL's application for revocation of coverage of the Moomba to Sydney Pipeline), NECG argued that a parallel pricing strategy may break down because both pipelines would have an incentive to cheat on the agreement in order to capture more market-share. (NECG, submission 20, p. 15) It argued "punishment" of a pipeline that "cheated" on a parallel pricing strategy would be difficult because in the short run prices could be cut to short run marginal cost – which for pipelines is far below the tariff needed to recover capital costs.

However, "punishment" may not be necessary both because the prices reached in such a price war are not sustainable and because such a price war would result in major losses to any party that engaged in it. This means prices may self-correct to equilibrium levels above competitive levels relatively quickly and without the need for punishment. The disastrous consequences of such a price war would discourage both parties from ever engaging in it.

NECG also argued that the services of pipelines were quite heterogeneous, implying that price cuts could be applied selectively in order to capture market-share in particular segments of the market. (NECG, submission 20, p. 16)

The Council recognises that the market for gas sales is made more heterogeneous through, for example, the application of different risk sharing strategies. However, the extent of heterogeneity can be overstated, and even where price cuts are applied in some segments of the market, an overall strategy of parallel pricing may still prevail.

Finally, the Council notes that:

- no upstream or downstream party apart from Energy Australia supported non-coverage, and most explicitly supported coverage; and
- the LECG submission said coverage of both the Moomba to Sydney Pipeline and the Eastern Gas Pipeline might eliminate allocative costs associated with parallel pricing behaviour of about \$21.2 million for a net benefit from coverage (after deduction of regulatory and indirect costs) of \$9.8 million.

The Council is firmly of the view, based on consideration of the available evidence, that there is a real danger or likelihood of parallel pricing behaviour between the Eastern Gas Pipeline and Moomba to Sydney Pipelines.

The Council has examined the likely position if coverage occurs.

If the Eastern Gas Pipeline were covered, then certain information disclosure provisions would apply in respect of the prices on which services are offered.

NECG argued that the information disclosure of the National Code may facilitate parallel pricing behaviour by letting each pipeline know the pricing strategies of the other. (NECG, submission 20, pp. 15 – 16)

The Council does not accept this argument. The minimum information requirements in the various pipeline management, services and trading policies are not high, and do not appear to be of a nature that would facilitate collusion between pipeline owners. Moreover, the information disclosure provisions may facilitate greater scrutiny of prices thus making it easier for the regulator and the market to detect parallel pricing strategies. The Council notes that submissions from peak user bodies, such as PIAC, AGUG, and EMRF, argued strongly for increased price transparency, indicating that they saw users' interests as best served by more information disclosure and greater price transparency.

On balance, the Council considers that the benefits of information disclosure, notably the promotion of a better-informed market, are likely to outweigh any costs associated with the increased potential for parallel pricing behaviour.

Some submissions suggested coverage under the National Code would impose costs greater than any benefits provided by coverage. In particular, they suggested coverage 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 considers that the National Code retains considerable flexibility for parties to construct innovative service and pricing options. This issue is discussed further in criterion (d) in the context of assessing whether the costs associated with coverage outweigh the benefits.

Conclusion

The Council considers the issue of whether access is likely to promote competition in the South East Australian gas sales market ultimately rests on judgments about the outcome likely to result after taking into account the combination of incentives facing Duke and EAPL.

Having considered the South Eastern Australian gas sales market with and without coverage, the Council is firmly of the view that coverage would promote competition in that market.

Consequently, the Council considers that criterion (a) is met.

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 arguing that it would be unsafe to provide access or increased access 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 or increased 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 these regulations deal appropriately with any safety issues arising from access to the Eastern Gas Pipeline.

Conclusion

The Council concludes that access (or increased access) can be safely provided to the services of the Eastern Gas Pipeline, and therefore that criterion (c) is met.

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

In general, 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 costs and benefits of regulation;
- 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, PIAC and Great Southern Energy supported coverage to ensure regulatory consistency, to discourage forum shopping, and to promote a uniform national framework. Many 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, the IPA and APIA criticised elements of the National Code, arguing in effect that it is 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 the view that all natural gas pipelines that meet the coverage criteria should be regulated under the relevant Gas Access Acts and 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 .

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 [National] 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 met 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 argument that the National Code has the effect of stifling innovation and is 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, the IPA and APIA. NECG’s attachment to EAPL’s submission 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”:⁴⁵

- *“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 competitors]; and*
- *“short review periods (typically five years under the National Code) are likely to create substantial disincentives for investment, for example in expanding capacity”. (EAPL, submission 10, p. 8)*

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 unbooked capacity in the pipeline. (Energy Australia, submission 2)

By contrast, Great Southern Energy and Origin (in Origin’s submission to the Council in respect of the application for revocation of part of the Moomba to Sydney Pipeline), argued that the reference tariffs provided for under the Access Code do not prohibit operators of pipelines from offering other services or undertaking entrepreneurial activity. (Great Southern Energy, submission 19, p. 5; Origin, 2000, p. 2)

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 transmission services markets.

The Council recognises that inevitably any regulatory model would have some shortcomings that would cause it to fall short of the results achieved in a competitive market, but that regulation of a pipeline is justified where the results under regulation would improve on the results without regulation.

⁴⁵ NECG present reasons to prefer regulation by Undertaking compared to regulation through coverage, and also argue the case that some form of regulation is preferable to no 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 stated that it was legally permissible for the Council to take into account the draft Undertaking as part of the Council's consideration of criterion (d). However, in the current situation it did not appear that the submission of the Undertaking to the ACCC or its terms had any particular relevance in the context of this application.

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. Woodside raised concerns with the proposed Undertaking, noting that it is likely to lead to higher tariffs than would be permitted under the National Code, would run without change for 20 years, and attempts to set regulatory guidelines for the ACCC to adopt. (Woodside, submission 22, p. 3)

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).⁴⁶ This makes it difficult for the Council to place much weight on the Undertaking in its present form.

It seems to the Council that Duke could achieve many of the objectives of the Undertaking in the form of an Access Arrangement under the National Code. This is because of the intention of the National Code (expressed above) is for "Access Arrangement [to be] similar in many respects to an

⁴⁶ Section 44ZZA(7).

Undertaking under Part IIIA” and because of the flexibility of the National Code in the design of Access Arrangements.

The Council is not satisfied that coverage under the National Code would be contrary to the public interest by reason of the draft Undertaking submitted by Duke to the ACCC.

Costs of regulation of the Eastern Gas Pipeline

The LECG submission estimates the direct and indirect costs of regulation under the National Code for the entirety of the Eastern Gas Pipeline to be \$3.9 million. Its analysis of the net welfare impact of coverage of the Eastern Gas Pipeline and Moomba to Sydney Pipeline is that there would be a net cost of \$11.4 million if the market were competitive but a net benefit of \$9.8 million if the market were collusive. (LECG, submission 21, p. 62)

The Council recognises that there are costs associated with regulation under the National Code and that these can be significant. However, the Council considers it reasonable to assume that the costs of legitimately regulating monopoly infrastructure were taken into account by COAG in its decision to develop the National Code. It also notes that were the Eastern Gas Pipeline not covered, its owners would face not insubstantial costs in negotiating individual contracts with customers.

Overall, the Council considers that the benefits of regulating the Eastern Gas Pipeline under the National Code will outweigh the costs. The benefits of coverage of the Eastern Gas Pipeline are likely to be large, given the size of the market in which competition will be promoted (the market for gas sales in South East Australia). In particular, as discussed in Part B, transmission tariffs can represent a significant portion of the total delivered cost of gas. This suggests that, for large users at least, gains from regulation in the form of lower tariffs could be significant.

Costs of regulation of part of the Eastern Gas Pipeline

Several submissions raised issues associated with the potential partial coverage of the Eastern Gas Pipeline. The Council notes that, as it has determined that each of the criteria are met for the entirety of the pipeline, partial coverage is no longer at issue for this application.

Symmetrical Regulation

EAPL has argued that it is 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. (EAPL, submission 10)

NECG's attachment to EAPL 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. (EAPL, submission 10, p. 6)

EAPL and NECG argue that the information disclosure and price-setting requirements imposed on covered pipelines would place them at a disadvantage relative to 'competing' uncovered pipelines. They also argue that a lack of regulatory symmetry may lead to inefficient economic outcomes, including through its potential to impact on resource allocation and gaming behaviour. Santos argues that the Council should not turn criterion (d) into a positive obligation that it is in the public interest to have symmetry in regulation of all pipelines.

The Council considers that the criteria for coverage set out in the National Code should be applied independently to each application for coverage or revocation brought before it. Where pipelines have similar characteristics it is likely that its processes will result in similar recommendations.

This approach is consistent with the submission by Santos, which argues that "it is the NCC's duty to apply the National Code to each pipeline and to come to a recommendation on that basis alone." (Santos, submission 17, p. 2)

The Council considers that where the owner of a pipeline has interests in related activities (such as gas distribution), the possibility of anti-competitive behaviour is most appropriately addressed through specific regulation (such as ring-fencing) rather than in the context of decisions about coverage.

Information disclosure

The Council notes that submissions raise a range of views on the net benefit of information disclosure. This issue has also been considered in the context of the promotion of competition. Whilst there is nothing which would prevent a factor being relevant to more than one criteria for coverage, there is nothing in the analysis of this particular issue which differs depending upon the criterion against which it is assessed.

As noted in relation to the promotion of competition, on balance, the Council considers that the benefits of information disclosure, notably the promotion of a better-informed market, are likely to outweigh any costs associated with the increased potential for parallel behaviour.

Conclusion

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 it is satisfied that criterion (d) is met.

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Appendix 1: Submissions to the Council

First Round Submissions

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)⁴⁷
12. Energy Markets Reform Forum
13. Duke

Second Round Submissions (in response to Council's Draft Recommendation)

14. EAPL
15. CMS
16. APIA
17. Santos
18. GGT Pty Ltd
19. Great Southern Energy

⁴⁷ Page references are to the revised submission.

20. NECG submission on behalf of Duke/EAPL - both in commercial-in-confidence and non commercial-in-confidence form
21. LECG submission on behalf of Duke - both in commercial-in-confidence and non commercial-in-confidence form
22. Woodside
23. Incitec
24. Duke
25. Duke (through Minter Ellison)

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 application⁴⁸) 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.*

⁴⁸ 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 Order⁴⁹

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.⁵⁰ 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

⁴⁹ 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.

⁵⁰ The Council also considered whether the application was trivial or vexatious, and whether it complied with the Council's guidelines for applications for coverage.

- at some point, a pipeline moved beyond being merely a prospective pipeline to become a pipeline for the purposes of the National Code.

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.

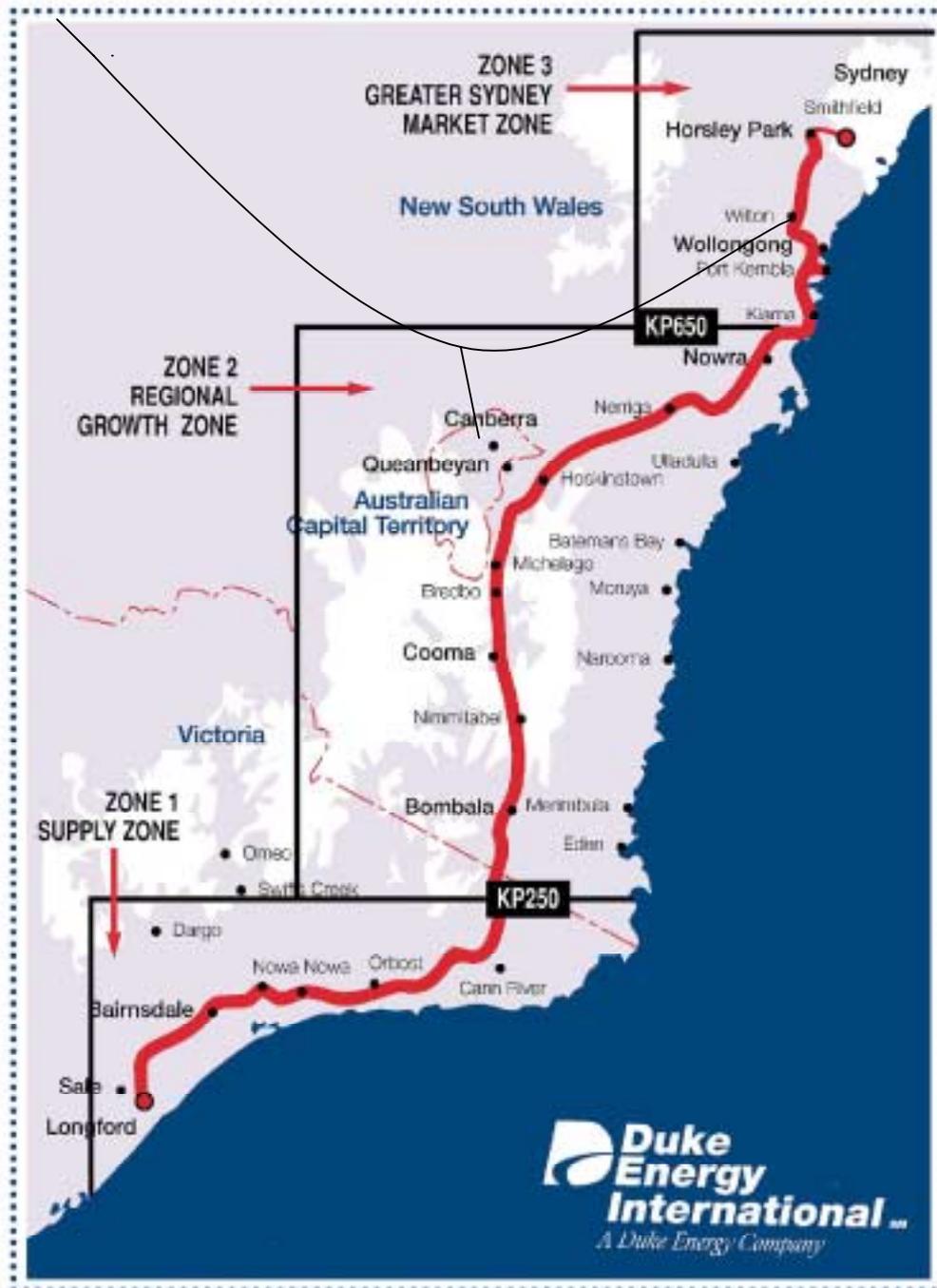
The Council also noted a number of other factors supported acceptance of the application:

- 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.

Diagram 1: Route of Eastern Gas Pipeline

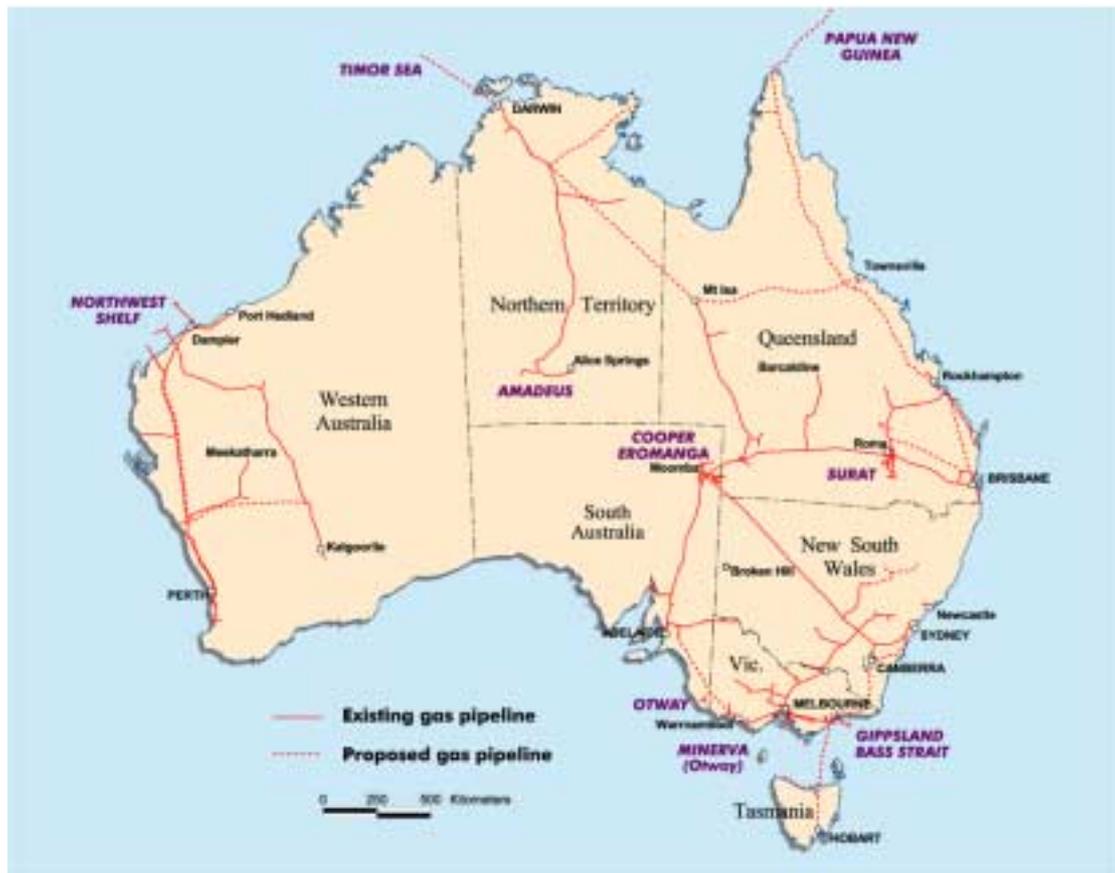
EASTERN GAS PIPELINE SUPPLY ZONES



Source: Duke, 1999

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

Diagram 2: Natural Gas Pipelines in Australia



Source: South Australian Department of Primary Industries and Resources.