Application for revocation of coverage of the Goldfields Gas Pipeline under the National Gas Access Regime

Final Recommendation

November 2003

National Competition Council

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Final Recommendation

1.1 This document contains the National Competition Council's (the Council) final recommendation in respect of the application for revocation of coverage of the Goldfields Gas Pipeline (the GGP) under the Gas Pipelines Access (WA) Act 1998 (the WA Gas Access Act). The application seeks revocation of the entire pipeline, including the Newman Lateral, pursuant to sections 1.24 and 1.25 of the National Third Party Access Code for Natural Gas Pipeline Systems (National Gas Access Code).

1.2 The Council's final recommendation is that coverage under the National Gas Access Code of the GGP should not be revoked. The Council is satisfied that all four of the criteria in section 1.9 of the National Gas Access Code are met for the whole of the GGP.

1.3 This final recommendation is divided into two parts:

(a) Part A, which explains the legislative background to the National Gas Access Code; the concept of coverage under the regime and the Council's approach to the revocation criteria under the National Gas Access Code. It also examines details of the application, including specifications of the pipeline, and the structure of the natural gas industry and the state of competition in the relevant markets.

(b) Part B, which contains the Council's detailed consideration of whether the GGP meets each of the criteria against which revocation of coverage must be assessed (the coverage criteria).

Abbreviations and glossary of terms

ACCC	Australian Competition and Consumer Commission
Access Arrangement	A statement of policies and the basic terms and conditions that apply to third party access to a Covered Pipeline
AGMC	Agnew Gold Mining Co Pty Ltd, a wholly owned subsidiary of Gold Fields Ltd
Anaconda	Anaconda Operations Pty Ltd
Apache	Apache Oil Australia Pty Ltd
APIA	Australian Pipeline Industry Association
APL	Australian Pipeline Limited
Application	Application for revocation of coverage of the Goldfields Gas Pipeline lodged by Goldfields Gas Transmission Pty Ltd on 27 March 2003
APT	Australian Pipeline Trust
Barrick	Plutonic Operations Limited (previously Homestake Gold)
BHP	The world's largest diversified resource company. BHP stands for Broken Hill Proprietary Company, one of the three original companies that merged to form BHP
BHP Iron Ore	The manager and sales representative for the Mt Newman, Mt Goldsworthy Associates and Yandi Joint Ventures (ABN 46 008 700 981)
CCI	Chamber of Commerce and Industry of Western Australia
Council	National Competition Council
Coverage Criteria	Criteria set out in section 1.9 of the National Gas Access Code for Natural Gas Pipeline Systems
Covered Pipeline	A pipeline covered under the National Gas Access Code
CMS	CMG Gas Transmission Australia
CPA	Competition Principles Agreement

CPA Principles	The principles for an effective access regime set out in clause 6(4) of the CPA
DBNGP	Dampier to Bunbury Natural Gas Pipeline
DBNGP Regulation	Dampier to Bunbury Natural Gas Pipeline Regulation 1998 (WA)
Duke Energy	Duke Energy WA Power Pty Ltd (CAN 058 070 689)
EGP	Eastern Gas Pipeline
Epic Energy	Epic Energy (WA) Transmission Pty Ltd, the operator of the DBNGP
Gas Access Acts	Collectively, the Acts that apply the Gas Pipelines Access Law (which is defined in the Gas Access Acts to include the National Gas Access Code) as law in each State and Territory in which the Gas Pipelines Access Law applies
Gas Pipelines Access Law	Together, Schedule 1 to the Gas Access Acts and the provisions of the National Gas Access Code, as amended and in force for the time being — the Gas Pipelines Access Law, in conjunction with the National Gas Access Code and the Gas Access Acts, sets out provisions of the regime for third party access to the services of gas pipelines
GEMM	Geraldton to Mt Margaret Pipeline
GGP	Goldfields Gas Pipeline
GGT	Goldfields Gas Transmission Pty Ltd (GGT)
GJ	Gigajoule, a unit of measurement for measuring the energy content of natural gas or other energy sources — 1GJ is equivalent to 1 billion joules
GP	Goldfields Power, a 50/50 joint venture between TransAlta and Newmont
KCGM	Kalgoorlie Consolidated Gold Mines Pty Ltd, an equal partnership between Newmont and Barrick
Kleenheat	Wesfarmers Kleenheat Gas Pty Ltd (trading as Kleenheat Gas)
LNG	Liquid Natural Gas
LPG	Liquid Petroleum Gas
Minister	Minister responsible for administering the State Agreement

MMBtu	A million British Thermal Units - an imperial unit system measurement for energy. 1MMbtu = 1.055 gigajoules
MSP	Moomba to Sydney Pipeline System
National Gas Access Code	National Third Party Access Code for Natural Gas Pipeline Systems
Newmont	Newmont Australia Limited (previously Normandy Mining Limited)
Newmont Power	Newmont Power Pty Ltd (previously Normandy Power Pty Ltd), a company established to sell power to past and present associates of Newmont.
OffGAR	Office of Gas Access Regulation of Western Australia
OMG	OMG Cawse Pty Ltd
Pipeline	Defined in the National Gas Access Code and the GPA 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
PJ	Petajoule (equal to 1,000,000 GJ or 1,000 TJ)
PJ/a	Petajoules per year
PJ/d	Petajoules per day
Project Consultancy Services	Project Consultancy Services Pty Limited
Regulator	The Independent Gas Pipelines Access Regulator of WA
Santos	Santos Limited
SCE	Southern Cross Energy, a partnership between TransAlta of Canada (85 per cent) and AGL (15 per cent)
SIGMC	St Ives Gold Mining Company Pty Ltd, a wholly owned subsidiary of Gold Fields Ltd
Southern Cross Pipelines	Together, Southern Cross Pipelines Australia and Southern Cross Pipelines (NPL) Australia
Southern Cross Pipelines Australia	Southern Cross Pipelines Australia Pty Limited (ACN 084 521 997)
Southern Cross	Southern Cross Pipelines (NPL) Australia Pty Ltd (ACN 085

Pipelines (NPL) Australia	991 948)
SSNIP	Small but significant and non-transitory increase in price
State Agreement	Agreement between owners of GGP and the Western Australian Government for the development of the GGP — the Agreement enunciated in the State Agreement Act
State Agreement Act	Goldfields Gas Pipeline Agreement Act 1994 (WA)
SWIS	South West Interconnected (electricity transmission) System
TJ	Terajoule (equal to 1,000GJ)
TJ/a	Terajoules per annum
TJ/d	Terajoules per day
TPA	*Trade Practices Act 1974*
TransAlta	TransAlta Energy (Australia) Pty Ltd (ACN 062 135 844)
Tribunal	Australian Competition Tribunal
Ventnor	Ventnor Consulting Group
WA Gas Access Act	*Gas Pipelines Access (WA) Act 1998*, the Act which applies the Gas Pipelines Access Law (which is defined in the Gas Access Acts to include the provisions of the National Gas Access Code) as a law of Western Australia
WA Gas Pipelines Access Law	Gas Pipelines Access Law as it applies in Western Australia by reason of s9 of the WA Gas Access Act (the Gas Pipelines Access Law is defined in the WA Gas Access Act to include the provisions of the national Gas Access Code)
WMC	WMC Resources Limited

Part A–Legislative background

2 The National Gas Access Code

2.1 The WA Gas Access Act applies the National Gas Access Code to gas pipelines in Western Australia.

2.2 The National Gas Access Code entitles parties to negotiate access to the services of natural gas transmission pipelines and distribution networks, which are covered by the National Gas Access Code within an independent regulatory framework. The National Gas Access Code sets out the rights and obligations of service providers, pipeline users and access seekers. It includes coverage rules, the operation and content of access arrangements, ring-fencing arrangements, information parameters, dispute resolution and pricing principles.

2.3 The National Gas Access Code allows parties to seek revocation of coverage of a pipeline under the National Gas Access Code. Applications for revocation of coverage must be made to the National Competition Council. Following consideration of issues raised in public consultations, the Council issues a draft recommendation, conducts a further public consultation process then conveys a final recommendation to the relevant Western Australian Minister, who decides the matter. In this case, the relevant Minister is the Hon Eric Ripper, Western Australian Deputy Premier, Treasurer and Minister for Energy. Both the Council and the Minister must consider the criteria set out in Section 1.9 of the National Gas Access Code. Those criteria are set out at Appendix A.

2.4 If the Minister revokes coverage of the pipeline, the owner and operator of that pipeline are released from their obligations under the Gas Access Act of the applicable state or states and the National Gas Access Code.

2.5 The WA Gas Access Act includes a process for administrative (merits-based) reviews of decisions to revoke coverage. The process

is set out in section 38 of the Gas Pipelines Access Law. The WA Gas Review Board would hear any application for review.

Revocation criteria

2.1 Under section 1.31 of the National Gas Access Code, the Council cannot recommend revocation of coverage unless it considers the pipeline in question does not meet one of the criteria set out in section 1.9 of the National Gas Access Code. From another perspective, where a pipeline does not meet all of the criteria set out in section 1.9 of the National Gas Access Code, the Council must recommend revocation of that pipeline.

2.2 The Council may recommend revocation either to the extent sought, or to a greater or lesser extent than sought in the application.[1]

2.3 The criteria in section 1.9 are:

(a) that access (or increased access) to services provided by means of the pipeline in question 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 in question;

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

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

Process for considering the criteria

2.1 In interpreting the National Gas Access Code criteria, the Council has used general principles of statutory interpretation and has

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[1] Taking account of any part of the pipeline that is necessary to provide services that potential users may seek access to (section 1.29).

accorded primacy to the language of the coverage criteria. In addition, the Council has regard to the following matters:

(a) Relevant decisions of the Tribunal. The criteria have been considered by the Tribunal in the Duke EGP decision.

(b) The objectives underlying the National Gas Access Code.

(c) Decisions of the Tribunal in relation to applications for declaration under part IIIA of the *Trade Practices Act 1974* (the TPA). This is because, apart from some minor variations (the significance of which will be discussed where relevant), the words of the coverage criteria in section 1.9 of the National Gas Access Code are the same as the words of the declaration criteria in section 44G(2) of the TPA.

(d) Previous applications for coverage, and revocation of coverage, of gas pipelines considered by the Council under the National Gas Access Code. The Council has also had regard to the work of Janusz A Ordover and William Lehr, *Should Coverage of the Moomba to Sydney Pipeline be Revoked?* (Ordover and Lehr 2001), which focused specifically on East Australian Pipeline Limited's application for revocation of coverage of two pipelines within the Moomba to Sydney Pipeline System (MSP) under the National Gas Access Code.

2.2 This recommendation considers the criteria in a different order from that laid out in the National Gas Access Code. Conceptually, the Council considers it logical to begin with criterion (b), as it focuses on the issue of the service to which access is sought and the pipeline providing that service and asks whether that pipeline exhibits natural monopoly characteristics. Criterion (a) is wider in scope as it requires consideration of industry structure, the related but distinct markets dependent on the service and whether the service provider is able to exercise market power in those related markets because the provision of the service has natural monopoly characteristics. This approach is consistent with the approach adopted by the Tribunal in the Duke EGP decision.

2.3 The process adopted by the Council for considering the criteria can be broadly summarised as follows:

(a) define the service provided by means of the GGP, delineate the physical assets that comprise it and identify the "provider" of the "service";

(b) examine whether it is economic to develop another pipeline to provide the service. Coverage is confined to facilities exhibiting natural monopoly characteristics – that is, where for a likely range of reasonably foreseeable demand for the service, it would be cheaper for the GGP to provide those services rather than two or more pipelines. Such an assessment is relevant to whether criterion (b) is met;

(c) if development of another pipeline to provide the service would be uneconomical, for the purposes of criterion (a) assess whether coverage of the service will improve the conditions or environment for competition in a dependent market. Whether the conditions for competition will be enhanced depends critically on whether the natural monopoly characteristics associated with the provision of the service confer substantial market power on the service provider that can be exercised to adversely affect competition in a dependent market(s). As part of this evaluation, dependent markets will need to be identified, as will factors affecting the ability and incentive to exercise market power to adversely affect competition in a dependent market(s). Such an assessment is relevant to whether criterion (a) is met;

(d) assess whether access to the service can be provided safely. This is relevant to criterion (c); and

(e) determine whether access would not be contrary to the public interest. This is relevant to criterion (d). This criterion comes into play if the other criteria are satisfied and enables account to be taken of other factors not raised under the other three criteria, e.g., regulatory costs involved in providing access.

Submissions

2.1 The Council received the application on 27 March 2003. In accordance with section 1.26 of the National Gas Access Code, the Council advertised the application in *The Australian Financial Review*, *The West Australian* and the *Kalgoorlie-Boulder Golden*

Mail on Thursday 10 April 2003, and wrote to interested parties calling for submissions. The Council also published a copy of the application, and invited submissions, on its website. The Council extended the period for making the draft recommendation by advertisement on 26 May, 24 June and 30 July. The Council received 15 submissions, listed at Appendix B.

2.2 The Council released its draft recommendation on 8 September 2003. The Council's draft recommendation was that coverage under the National Gas Access Code of the GGP should not be revoked. The Council was satisfied that all four of the criteria in section 1.9 of the National Gas Access Code were met for the whole of the GGP.

2.3 In accordance with section 1.30 of the National Gas Access Code, the Council called for submissions on its draft recommendation. The Council received 3 submissions, listed at Appendix B. Due to the complex nature of the issues raised in these submissions, the Council, pursuant to sections 7.16-7.18 of the National Gas Access, extended the date of its final recommendation to 27 November 2003.

3 The application

3.1 The applicant, Goldfields Gas Transmission Pty Ltd (GGT), is the operator of the Goldfields Gas Pipeline (GGP). The applicant seeks revocation of coverage for the whole of the GGP, including the Newman Lateral, under sections 1.24 and 1.25 of the National Gas Access Code.

The pipeline

3.1 The pipeline is identified in Schedule A of the National Gas Access Code as the "Goldfields Gas Pipeline System" (pipeline licence WA:PL24), comprising the GGP and the GGT Newman Lateral. The GGP has a length of 1 380 km and a pipe diameter of 400 mm and 350 mm. The Newman Lateral has a length of 47 km and a pipe diameter of 219 mm.

3.2 The application states that the GGP, which was built by a private consortium in 1995-96, transports natural gas from the Dampier to Bunbury Natural Gas Pipeline (DBNGP) Compressor Station One at Yarraloola to Kalgoorlie, via the East Pilbara and North East Goldfields regions of Western Australia.

3.3 The location of the pipeline and its major physical components (compressor stations, offtakes, etc.) are illustrated in Figure 1. Appendix 1 of the application reproduces 7 maps showing the geographical location of the GGP (GGT 2003, Appendix 1). There are currently six third party users (i.e., parties not related to the foundation shippers) of the GGP. These are Plutonic Operations (at Plutonic), Wiluna Gold (at Wiluna), AWI for Great Central Mines (at Jundee), AlintaGas (for the distribution system in Kalgoorlie), Anaconda Operations (at Murrin Murrin) and AWI for Centaur Mining (at Cawse).

3.4 A proposed Access Arrangement for the GGP was submitted to the Office of Gas Access Regulation (OffGAR) in December 1999. The Regulator issued a draft decision requiring forty-nine amendments to the proposed Access Arrangement in April 2001. In November 2002, the Regulator issued a notice indicating his intention to revise the access arrangement approval process and to amend the draft decision issued with respect to the GGP. At present, the assessment period for the proposed Access Arrangement has been extended to 15 December 2003[2].

3.5 The GGP is subject to a state agreement, ratified in the Goldfields Gas Pipeline Agreement Act (WA) 1994, which was signed between the developers of the pipeline and the Western Australian State Government in 1994. Amongst other things, it requires the development of third party access arrangements and tariffs in compliance with agreed principles (GGT 2003, p. 7).

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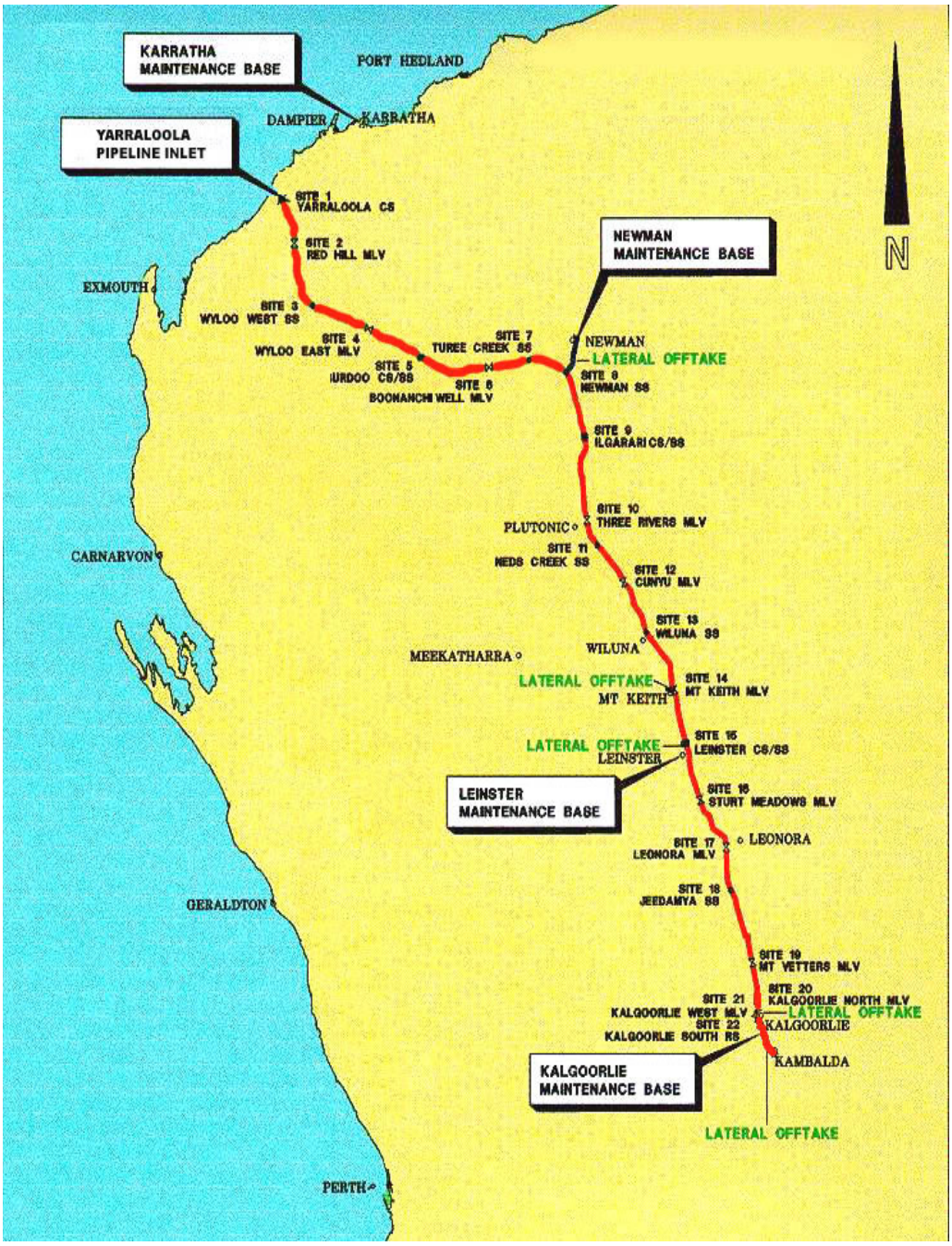
[2] OFFGAR, Notice dated 15 October 2003 – http://www.offgar.wa.gov.au/library/ACF4CB5.pdf

Figure 1



GGT 2003, Appendix 1, Map 1.

Part B - Coverage criteria

4 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 criterion (b)

4.1 In analysing this criterion, the Council will:

(a) define the service provided by the GGP; and

(b) assess whether it is economic to develop other pipelines (including both existing pipelines and new pipelines) to provide that service.

Service

4.2 In the Duke EGP decision, the Tribunal decided that the "service" provided by means of the Eastern Gas Pipeline was a haulage service for the transport of gas between one point on the pipeline and another:

> *The question of what constitutes the services provided by the pipeline is fundamentally a mixed question of fact and the proper construction of criterion (b), rather than a matter of economic analysis. Every haulage service will of necessity be from one point to another. That is the commercial service actually provided by the pipeline operator to its customers.* (Duke EGP decision, paragraph 69)

The application

4.3 GGT submits that the service provided by means of the GGP is:

> *the transportation of gas for the main purpose of generating electricity as part of an interconnected Western Australian energy transmission network (illustrated in map 3 of appendix 1 to the application).* (GGT 2003, p. 60)

4.4 GGT argues that the role of the GGP is the transportation of natural gas from any of Western Australia's upstream gas producers (having access to the state's transmission pipeline network) to downstream users in the Pilbara, Goldfields and mid-west of the state, for the primary purpose of competing with diesel, LPG and electricity. Underlying this definition is GGT's assessment that the majority of the demand being satisfied by the transmission of gas is the demand for electricity, and that provisions exist for interconnection of the DBNGP and the GGP. (GGT 2003, p. 60)

4.5 GGT considers that defining the service as a 'point-to-point' service, as the Tribunal has done in the Duke EGP decision, is "somewhat simplistic" (GGT 2003, p. 61). GGT argues that such an approach does not recognise that the pipeline has existing and/or explicit provisions for potential future intermediate inlet and outlet points along its length, and is part of a "developing latticework of natural gas pipelines" facilitating the provision of strategically located competitive energy supply throughout the state (GGT 2003, p. 61).

4.6 GGT suggests that, in defining the service provided by the GGP, the Council should give consideration to the 'utility' of that service, "that is, to gauge the extent to which a facility is or is not a monopoly by consideration of the purpose for which it exists" (GGT, Summary response to public submissions, p. 6). GGT goes on to argue that, if the GGP existed purely for the purpose of supplying gas for its inherent qualities (as opposed to use for conversion to other forms of energy) it would serve a market that is less than 10 per cent of the volume that it currently supplies.

Issues

4.7 The Council considers that the definition put forward by the applicant is too expansive. The way in which a service is defined and delineated must be commercially meaningful. The relevant service is the thing that is bought and sold, or for which there are potential transactions In this case, it is the transportation of gas from one point to another which is bought and sold. In the Duke EGP decision, the Tribunal found that:

> *…the pipeline operator sells a (haulage) service consisting of the transport of gas from point A to point B. That is what the customer buys. EGP's standard contract describes the service to be provided as a firm forward haulage service involving the transport of natural gas in the pipeline between specified receipt points and delivery points.* (Duke EGP decision, paragraph 68)

4.8 GGT itself notes that "[t]he primary service provided by GGT is solely related to the business of transporting gas …" (GGT 2003, p. 62) and "[f]undamentally, the role of the GGP within the energy transmission network is the transportation of natural gas …" (GGT 2003, p. 60).

4.9 The delineation of the relevant service should not be confused with the quite separate analysis that may occur in identifying relevant markets. The applicant's description of the GGP's role in energy markets, 'fuel-on-fuel' competition and electricity generation, is more appropriate for the analysis under criterion (a) - whether access to the services provided by the GGP would promote competition in another market. As the Tribunal stated in the Duke EGP decision:

> *That service may be of different use to the producers in the origin market or to the customers in the destination market, but it is the same service. No market analysis is necessary or appropriate in the description of the services provided by the pipeline. However, questions of market definition and market power do arise in the context of criterion (a).* (Duke EGP decision, paragraph 69)

4.10 Submissions from Anaconda, Newmont, OMG and WMC dispute GGT's definition of the service provided by the GGP.

4.11 According to WMC, the service definition put forward by GGT confuses the purpose for which the service is required and the service itself. WMC draws on the preceding findings of the Tribunal in the Duke EGP decision to conclude that the purpose for which a service is used does not change the character of the service (WMC Submission 1, p. 16). WMC also notes that the Tribunal rejected the purpose for which a service is used as bearing upon the definition of the service in the Sydney International Airport decision. In that context, the Tribunal said:

> *The service provided by [Sydney Airports Corporation Limited] is the making available of the freight aprons, hardstands and other areas to enable other persons carrying on other activities to provide their own services. It makes no sense to construe the services declared [the] by the Minister as including the services of*

loading and unloading international aircraft or transferring freight because no such services have been, or are, provided by [Sydney Airports Corporation Limited]. (Sydney International Airport decision, paragraph 16)

4.12 WMC considers that the services provided by the GGP are:

> *… the services of the transmission of gas from one point to another along the GGP. Whilst the purpose of transmitting that gas may be for the acquirer of that gas to convert it into electricity, GGT does not provide or make available that service. Just as it made no sense in the Sydney Airport matter to construe the services declared as including the services of loading/unloading and freight transfer, it makes no sense here to construe the services provided by the GGP as including the conversion of gas to electricity. This is particularly so where not all of the gas transmitted through the GGP is used for the purpose of conversion into electricity.* (WMC Submission 1, pp. 17-18*)*

4.13 Anaconda considers that GGT's definition is flawed in two respects:

> *First, it draws a downstream market (the electricity market) into the definition when the GGP does not participate in that market. Second, the spatial extent of GGT's market is physically constrained to the immediate precinct of the GGP route and the service it offers is not a service to all of Western Australia. Some shippers who use the services of the GGP may compete in markets spatially remote from the GGP but this activity is not relevant when defining the services provided by the GGP.* (Anaconda, p. 16).

4.14 Anaconda suggests that any service definition de-emphasise the 'transportation' element of the service to recognise that the molecules of gas shipped to a particular user are not the same molecules of gas actually delivered (Anaconda, p. 17). In the past, the Council has referred to the service provided by gas pipelines as the transportation of natural gas. While the Council recognises the point made by Anaconda, it does not consider that the use of the term 'transportation' as it is commonly understood in this context to be misleading, and notes that its use could aid in the clarity of the service definition.

Conclusion on service definition

4.15 The Council considers that the service provided by the GGP is a gas transportation service from the DBNGP Compressor Station One at

Yarraloola to Kalgoorlie and all points in between, via the East Pilbara and North East Goldfields regions of Western Australia.

Uneconomic to develop another pipeline

4.16 In considering whether it is uneconomic to develop another pipeline, it is appropriate to have regard to pipelines that have already been developed (Duke EGP decision, paragraph 57).

4.17 The term "develop" is sufficiently broad to encompass modifications or enhancements to existing pipelines. Thus, if an existing pipeline does not presently provide the services provided by the pipeline in question, but could economically be modified or expanded to do so, then criterion (b) is not met. This is consistent with the Tribunal's approach in the Duke EGP decision (paragraphs 55-57).

4.18 In the present case, the Council must therefore have regard to whether it would be uneconomic to develop either new or existing pipelines to provide the services of the GGP.

Uneconomic

4.19 The Tribunal explained the concept of uneconomic as follows:

> … *if a single pipeline can meet market demand at less cost (after taking into account productive, allocative and dynamic effects) than two or more pipelines, it would be "uneconomic", in terms of criterion (b), to develop another pipeline to provide the same services.* (Duke EGP decision, paragraph 64)

4.20 The Tribunal cast the test for whether it was uneconomic to develop another pipeline "in terms of costs and benefits to the community as a whole" Duke EGP decision, paragraph 137). By emphasising efficiency "in terms of costs and benefits to the community as a whole", the Tribunal endorsed a 'social' approach to the assessment of whether development of another pipeline was uneconomic.[3] This

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[3] The Tribunal in the *Eastern Gas Pipeline decision* later confirmed its social costs approach to criterion (b) when it concluded that the Eastern Gas Pipeline met criterion (b) "because it would be uneconomic in a social costs sense to develop [another pipeline] to provide the services provided by means of the [Eastern Gas Pipeline]" (*Duke Eastern Gas Pipeline case*, para 144).

approach follows from that adopted by the Tribunal in the Sydney International Airport decision.[4]

4.21 The social approach to the test therefore takes account of all relevant costs and benefits faced by society rather than being limited to private costs and benefits faced by the party considering development of another pipeline. The Tribunal has explained the rationale for this approach as follows:

> *…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 Williams' evidence of the perverse impact, in terms of efficient resource allocation, of adopting the narrow view.* (Sydney International Airport decision, paragraphs 204-205)

4.22 Ordover and Lehr provide guidance on the social interpretation of 'uneconomic' in the context of the Moomba to Sydney pipeline:

> *When [criterion (b)] is met, the total cost of transporting gas is minimized (and the goal of economic efficiency is served) when the activity is undertaken by one firm rather than by two or more firms. In the instant case, firms demanding transportation of*

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[4] The *Sydney Airport decision* was concerned with interpretation of the term "uneconomical" in the declaration criterion in Part IIIA of the Trade Practices Act. The Tribunal in the Duke Eastern Gas Pipeline case stated that nothing turned on the difference between the term "uneconomic" in criterion (b) and the term "uneconomical" in Part IIIA of the Trade Practices Act (*Duke Eastern Gas Pipeline case,* para 58).

natural gas between the production fields in Cooper Basin and the retail markets in NSW/ACT could not efficiently develop another pipeline that could compete with MSP without the overall cost of gas transport increasing. Such wasteful duplication of assets would engender inefficiencies to the detriment of the consuming public. Therefore, when criterion (b) is satisfied, it is efficient for firms wishing to ship gas between Cooper Basin and the NSW/ACT retail markets to avail themselves of the services provided by the MSP rather than constructing another pipeline. Coverage, if mandated, assures third parties access to the MSP. (Ordover and Lehr 2001, p.6)

4.23 Noting the findings of the Tribunal and the views of Ordover and Lehr, the Council considers that criterion (b) is satisfied if a single pipeline can satisfy demand for relevant services at lower cost than two or more pipelines. The pipeline is then a natural monopoly[5], and competition between two or more pipelines offering the same services would be inefficient (Ordover and Lehr 2001, p.4).

4.24 Thus, for the purpose of criterion (b), a natural monopoly exists if for a likely range of reasonably foreseeable demand it is always cheaper for a single pipeline to provide the service under consideration rather than multiple pipelines. In determining whether such a natural monopoly exists the Council is required to:

(a) determine the reasonably foreseeable demand for the service provided by the GGP; and

(b) assess whether the GGP can serve the reasonably foreseeable demand for the service under consideration at lower costs than two or more pipelines.

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5 Ordover and Lehr 2001 provide the following technical description of "natural monopoly" at p.4: Formally, a provision of a particular product or service is a natural monopoly if, over the entire relevant range of outputs, the firms' cost function is subadditive. A cost function C(q) is subadditive at q if it is always cheaper to produce a vector of outputs, q, in a single firm then by partitioning the output among two or more firms. For further discussion of these technical characteristics, see Sharkey, William, *The Theory of Natural Monopoly*, Cambridge University Press: Cambridge, (1982) and W J Baumol, J C Panzar, and R D Willig, *Contestable Markets and the Theory of Industry Structure*, HBJ Publishers: New York (1982).

Likely demand for natural gas and the capacity of the GGP

Existing demand

4.25 The application estimates current throughput for the GGP to be 83.5 TJ/day (GGT 2003, Appendix 2, p. 19). The largest source of demand for gas transported by the GGP is for conversion to electricity to service mining and minerals processing operations. North of Kalgoorlie, the GGP delivers gas to: iron ore mining and processing operations at Newman (owned by BHP Billiton); nickel mining and processing operations at Mt Keith and Leinster (Owned by WMC Resources), Murrin Murrin (owned by Anaconda) and Cawse; and gold mining and processing operations at Jundee and Wiluna (owned by Newmont Australia Limited) and Plutonic. In the vicinity of Kalgoorlie, the GGP delivers gas to nickel processing facilities at Kambalda and Kalgoorlie (owned by WMC Resources) and to the Parkeston Power Station servicing Newmont's Kalgoorlie gold operations. (GGT 2003, Appendix 2, pp. 3-19)

4.26 In addition to gas converted to electricity to service companies' own mining and processing operations, some gas is converted to electricity for sale to third parties via the SWIS, primarily by WMC and Newmont in the Kalgoorlie/Kambalda area (GGT 2003, Appendix 2, p. 27). The GGP is also to supply gas to a new power station to be built in Esperence (GGT 2003, p. 61). North of Kalgoorlie, the GGP delivers gas to several remote power generators (GGT 2003, p. 60).

4.27 A further, and less significant, source of demand for gas is residential and commercial users, and industrial users using gas for its inherent qualities. For instance, AlintaGas receives gas from the GGP to supply its distribution system in the Kalgoorlie/Boulder area (GGT 2003, Appendix 2, p. 17), and Anaconda uses gas received from the GGP for the production of hydrogen (GGT 2003, Appendix 2, p. 21). GGT estimates that demand from these sources accounts for 5-10 per cent of the GGP's throughput (GGT 2003, p. 22).

Forecast demand

4.28 The application does not provide quantitative forecasts of demand for gas. However, it does comment that companies will continue to evaluate the profitability of resource developments as long as commodity demand exists (GGT 2003, p. 65). It also states that there is recognition within the downstream industry that existing infrastructure has only a limited ability to meet future needs due to expected increases in demand driven by resource development (GGT 2003, p. 63). The application refers to the proposal by Anaconda to build the Geraldton to Mount Margaret Pipeline (GEMM), which GGT argues demonstrates "that as gas demand grows, additional infrastructure is going to be required, both in order to capture the new economies of scale which will become available, as well as to satisfy the market demand once the maximum capacity of the GGT is exceeded" (GGT 2003, p. 67).

4.29 More detailed forecasts of gas demand have been made available by GGT in access information provided to the Regulator, and are summarised in Appendix 2 of the application. In information provided in 1999, GGT forecast throughput for the GGP to fall from 71 TJ/day in 2000 to 69 TJ/day in 2004, after peaking at 74 TJ/day in 2002. This forecast was based on "the depressed state of the mining industry and lack of firm response to the Economic Development Tariff initiative" (GGT 1999, p. 38).

4.30 GGT provided revised forecasts to the Regulator in a public submission in December 2002. The revised forecasts project throughput for the GGP to increase from 77 TJ/day in 2000 to 80.5 TJ/day in 2007, after peaking at 83.5 per cent in 2001. These forecasts were based on the assessment that "[a]s a result of its experience resulting from active involvement in the relevant markets, GGT has reached the conclusion that there are no new mining projects, which could add additional load to the GGT in the short to medium term" (GGT 2002, p. 84).

4.31 A further source of information on projected demand for gas is the 2000 forecast prepared by ACIL Consulting for the Australian Pipeline Limited (APL) prospectus for the float of the Australian Pipeline Trust (APT). That forecast appears more optimistic than those provided by GGT to the Regulator, although it is expressed in terms of maximum daily quantity rather than throughput. WMC quote the APL prospectus as follows:

> *The Goldfields Gas Pipeline is currently contracted for a total maximum daily quantity of 81 TJ/day. Of this, 73 TJ/d is contracted to 2013 and 11.6 TJ/d to 2016. APL's forecasts of demand growth increase total capacity requirements to 169 TJ/d from 2005 to 2010. This growth is attributed to growth from existing contracts (30 TJ/d), further development of laterite projects (19 TJ/d), conversion of existing projects (17 TJ/d) and demand from new projects (15 TJ/d) (Appendices, p. 13).* (WMC Submission 1, p. 22)

4.32 Submissions from Anaconda, Newmont and WMC address the issue of expected future demand for gas. Each questions the likelihood of a very significant increase in demand for gas supplied by the GGP in the foreseeable future.

4.33 Newmont notes that the demand expectations outlined by GGT in its revised forecasts (under which the GGP's throughput would increase from 77 TJ/day to around 80 TJ/day) are broadly consistent with its own expectations (Newmont, p. 16). Newmont discusses the potential for new gas demand from various sources, including increased electricity generation in Kalgoorlie for sale to third parties and new or expanded resource projects such as expansion of the Super Pit and the lateritic nickel projects. It concludes that "significant expansion of existing projects or the development of new projects is unlikely to result in the level of additional demand for gas in the vicinity of the GGP or in the Kalgoorlie region that would absorb the actual and potential capacity available from the GGP …" (Newmont, p. 18). Further, Newmont suggests that the potential for conversion to gas of the remaining sites with diesel plants along the route of the GGP is limited, as they tend to be smaller mines, located away from the GGP route and with limited remaining mine life (Newmont, p. 18).

4.34 Anaconda notes that, based on GGT's advice to the Regulator and in the application, "even the demand forecast set out in APT's prospectus is beyond any reasonable expectation without the development of a super-development project in the Northern or Eastern Gold Fields" (Anaconda, p. 36). By way of demonstration, Anaconda notes that no actual or prospective third party user of the GGP consumes more than 5 PJ of gas per annum and that the GGP required a commitment of around 23 PJ of gas per annum to underwrite its development (Anaconda, p. 36).

4.35 WMC considers that forecast demand for gas "will remain stable over the short term with the potential for some upside in the

medium to longer term" (WMC Submission 1, p. 19). In WMC's view, the most likely demand forecast for the services provided by the GGP lies somewhere between a 'business as usual' scenario, under which throughput would remain at current levels, and the APL forecast (WMC Submission 1, pp. 20-21).

4.36 WMC is critical of the variation between forecasts provided by GGT in the application and the 1999 and 2002 information provided to the Regulator. WMC suggests that the divergence in GGT's forecasts "must call into question the reliability of its assessments and, in particular, its unquantified assertions that there will be demand to support the development of another pipeline" (WMC Submission 1, p. 28).

4.37 In the application, GGT suggests that the divergence between its own forecasts and the more optimistic outlook presented to the Regulator by other interested parties:

> *… may be evidence of the subjective nature of forecasting. In addition, there is a need to recognise the requirement to match the degree of confidence in the forecast with the appropriate level of investment risk recognised by Regulators under the Code, for which purpose the forecast in the proposed Access Arrangement was produced. (GGT 2003, p. 67)*

4.38 In further advice to the Council on this matter, GGT suggests that the outlook for demand growth has deteriorated in the last several years. It notes that "the load forecast "conservatism" observed by WMC, Normandy and Anaconda in GGT's proposed Access Arrangement, has been demonstrated to have been justly prudent". GGT refers to "the changed and now apparently diminished prospects for gas demand growth" and "the reversals of optimism which have occurred in regard to the markets relevant to the GGP". It also notes that it "would prefer that the markets that it services were performing more robustly than appears to be the present case" (GGT correspondence to NCC, 16 June 2003).

Capacity utilisation

4.39 GGT states that the current capacity of the GGP is approximately 100 TJ/d, and that current contracted capacity is around this level. The pipeline's maximum capacity is 160 TJ/d, this amount being the maximum full haul capacity that can be achieved with full compression but without looping (GGT 2003, p. 28). GGT notes that the pipeline was built with compression at two points and that

further compression has been added at another, with possible additional compression notionally located at a further six sites (GGT 2003, p. 30). Beyond full compression (which represents an increase on current capacity of around 60 per cent), the GGP's capacity can be increased only by looping (GGT 2003, p. 76).

4.40 Submissions do not dispute the capacity assessments contained in the application. However, Newmont notes that there is currently spare throughput capacity due to the relatively low utilisation (around 77 per cent) of the existing contracted capacity (Newmont, pp. 13-14).

> *Newmont estimates that perhaps some 8-10 TJ/d of spare capacity could be made available, though this would likely be for limited time periods and be dependent on the shipper agreeing to allow the use of unutilised contracted capacity. (Newmont, p. 19).*

Developing a new pipeline

4.41 Investment in gas pipelines is, in economic language, 'sunk'. That is, the investment is fixed or committed, and if the investment is a failure, little or none of it can be retrieved. This means that entry and exit costs to provide these services are high, and that incremental or gradual entry – a common form of entry in other industries – is not feasible in gas transmission and distribution.

4.42 It is not uncommon for existing pipelines to have spare capacity. From a pipeline company's point of view, it is often prudent to cater to the unpredictability of future requirements by building a larger capacity pipeline. This is because the costs of laying a new pipeline rise slowly compared with increases in the capacity of that pipeline. In other words, it is much less expensive – per unit of capacity – to lay a large capacity pipeline than a small capacity pipeline.

4.43 Gas pipelines typically have high construction costs and low operating costs, making the marginal cost of transporting a unit of gas very low. Moreover, up to the point of fully expanded capacity, average costs of transport per unit of gas decline. These features are indicative of natural monopoly characteristics. In lay terms, it is almost always cheaper to transport gas through existing pipelines (if spare capacity exists or can be added) than it is to build another pipeline to transport gas. In the case of distribution systems, there are additional obstacles of urban town planning and environmental restrictions.

4.44 In summary, therefore, it is generally not economic to develop another pipeline where an existing pipeline has spare capacity (or can develop it through greater compression and/or looping). Having said this, the Council recognises it will always be necessary to consider the facts of particular pipelines.

Issues

4.45 In considering whether it would be economic to develop a new pipeline to provide the services provided by the GGP, the Council must consider the outlook for demand growth for those services, and the ability of the GGP to meet that demand.

4.46 GGT has not provided the Council with quantitative forecasts of growth in demand for its services. However, as outlined in the preceding section, GGT provided forecasts to the Regulator in December 2002 which suggest that growth in demand for its services will be modest in the short to medium term, due to the absence of any likely major resource developments in that timeframe. Qualitative remarks in the application suggest that GGT has become more optimistic about the demand outlook over the past 6 months. However, in separate advice to the Council, GGT notes the deterioration in the prospects for gas demand growth in recent years. Submissions appear generally to agree with the more subdued assessment.

4.47 Forecasts provided in 2000 by APL in its prospectus for the float of APT portrayed a significantly more optimistic outlook for demand growth than that contained in either the submissions or in GGT's 2002 forecasts. The APL forecasts, being less recent than the others, were predicated on some assumptions that, with the passage of time, appear less likely. For instance, further development of laterite nickel projects is doubtful in the short to medium term. The Council also notes Newmont's argument that the potential for conversion of remaining sites serviced by diesel plants is limited due to the sites' size, location relative to the GGP and anticipated lifespan. However, commodity price movements may have seen development prospects increase in other areas, notably iron ore. That said, the Council considers the APL forecast to be the upper bound of likely growth scenarios, and that actual outcomes are likely to fall in a range between it and GGT's 2002 forecast for modest growth.

4.48 On the evidence before the Council, the GGP is currently operating at, or around, fully contracted capacity. The Council notes Newmont's argument that spare throughput capacity exists due to the relatively low utilisation of the existing contracted capacity. However, the Council notes that the use of any spare capacity that could be made available would be subject to constraints. Any significant increase in demand for the services provided by the GGP would appear likely to require capacity expansion through the addition of further compression and thereafter through looping.

4.49 The question therefore becomes whether, if demand exceeds that which can be accommodated by the GGP in its current form, it would be more efficient to expand the GGP (through compression and, if necessary, looping) than to build another pipeline to provide the services provided by the GGP. As noted by GGT, "an adequate base load of demand must exist or be reasonably anticipated in order to justify initial investment in capital intensive infrastructure" (GGT 2003, p. 64)

4.50 In the application, GGT describes "gas transmission pipelines like the GGP" as exhibiting:

> *… very high capital costs with subsequently low marginal expansion and augmentation costs leading to a situation where the cost function for capacity expansion is declining.*
>
> *Of course, it is a widely accepted economic precept that the existence of decreasing average cost in association with increasing service levels (or production) is a primary characteristic of a natural monopoly. (GGT 2003, pp. 30-31)*

4.51 GGT also states that:

> *The reality is that the GGP can service all demand within its feasible catchment area up to a finite limit. This limit was set at the design stage, based on what was envisaged as being an adequate balance between current expenditure and future utilisation at the time the pipeline was built. Within this demand scenario, additional capacity is provided at the lowest feasible marginal cost, therefore it might be argued that it is inefficient to duplicate the service potential of the GGP up to this limit. (GGT 2003, p. 73)*

4.52 GGT argues, however, that the GGP does not display the characteristics of monopoly hold over its prospective customers, who also have recourse to electricity supplied via transmission line or stand alone power generation fuelled by diesel (GGT 2003, p. 70).

The Council considers that the question of whether or not GGT has the ability or incentive to use market power (due to competition from other fuel sources or any other factor) are properly considered under criterion (a). The test under criterion (b) is whether or not the GGP itself displays the characteristics inherent to a natural monopoly. On the basis of these extracts from the application, GGT appears to acknowledge that the GGP does possess such characteristics.

4.53 Submissions from Anaconda, Newmont and WMC argue that, at least up until maximum compression, it would be uneconomic to build another pipeline to provide the services of the GGP.

4.54 According to Anaconda, "… the GGP does have untapped economies of scale up to a capacity of at least 160 TJ/day" (Anaconda, p. 35). Based on Anaconda's view of the likely outlook for demand growth:

> *Given both the size of GGT's third party shipper loads, and prospective third party shipper loads, and the size of the commitments initially needed to underwrite the GGP, no viable third party user, or prospective third party user, of the GGP could seriously contemplate development of another pipeline to provide the services currently provided by the GGP at a scale capable of being considered economically viable. When it is recognised that the users of the GGP are located at various sites over the 1,000 km lower reaches of the GGP (many of them very remote sites), then it becomes even less viable for any one user, a group of users or prospective users, to develop an economic pipeline offering the services provided by the GGP. (Anaconda, p. 36)*

4.55 Anaconda also notes that a number of the GGP's users are bound by long-term contracts which would restrict their freedom to support a new pipeline development (Anaconda, p. 37).

4.56 Similarly, WMC states that "… there is nothing in the demand forecasts put forward by WMC or those put forward by GGT and APL which suggest that demand is likely to significantly exceed capacity of the GGP" (WMC Submission 1, p. 31). According to WMC:

> *To the extent that reasonably foreseeable demand is less than 60 TJ/day then it will demonstrably be cheaper from a cost perspective for that gas to be transmitted through the GGP than for it to be transmitted either through an entirely new pipeline or for it to be transmitted through the DBNGP and a lateral built across to connect with a user at the relevant point approximate to the GGP.* (WMC Submission 1, p. 32)

4.57 WMC goes on to argue that:

> *Even on the most optimistic factual information before the Council [contained in the APL prospectus], and accommodating maximum daily capacity rather than average throughput, looping of the GGP is likely to be a more economical means of providing the additional 9 TJ/d capacity forecast by APL.* (WMC Submission 1, p. 31)

4.58 Newmont states that it "believes that the Goldfields Gas Pipeline is a natural monopoly based on the ability to add capacity to it at low incremental cost compared with a greenfields pipeline, and because of the limited prospects for growth in demand for gas transmission services" (Newmont, p. 6). Newmont notes that the typical cost of adding a compressor station is $12-16 million, making the cost of installing compression up to the GGP's maximum around $72-96 million (Newmont, p. 12). Newmont calculates that the GGP's existing 'average tariff' (based on current capacity, throughput and the average annual revenue requirement) would be $1.91/GJ (Newmont, pp. 12-13). Expanding capacity up to maximum compression would, on a similar calculation, lead to an average tariff around $1.50/GJ, with gas being delivered at an incremental cost of $0.70/GJ (Newmont, pp. 13-14).[6]

4.59 On the evidence before the Council, it appears that up to the point of maximum compression it would be significantly cheaper to expand the capacity of the GGP to service additional demand compared with building another pipeline. Data provided by GGT shows the initial cost of building the GGP (up to a capacity of 100 TJ/d) to be around $466 million in current terms, while the cost of adding compression up to the GGP's maximum capacity would be, on Newmont's calculations, less than $100 million (GGT 2003, p. 68; Newmont, p. 12). While there is no evidence before the Council on the likely cost of looping, the large difference between these two sets of capital costs suggests that, for at least some amount of further demand, capacity expansion by that means would be more economic than building a new pipeline.

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6 *The basis for this correction is (at the minimum) the inclusion of capitalised interest during construction ($42.3 million) which was recognised but omitted in the original Draft Decision, subsequent capital expenditure for capacity expansion undertaken under the obligations of the State Agreement ($14.8 million), and previously unrecognised and unrecovered capital depreciation associated with consideration of the past basis upon which tariffs had been established relative to the different methodology dictated under the Code ($37.3 million)* (p. 14)

4.60 GGT notes that a new, larger, pipeline "has the potential to realise even greater efficiencies in transmission cost and hence develop broader benefits" (GGT 2003, p. 71). Greater capital productivity and related economic benefits may well result from technological improvements and scale advantages associated with future pipeline developments. However, the appropriate comparison under criterion (b) is not between the unit capacity costs of the GGP and a potential new pipeline, but between the cost of expanding the GGP from its current base and the cost of building a new pipeline, given the likely level of future demand.

4.61 GGT also argues that the development of another pipeline would bring a number of societal advantages, including greater access to markets for producers, additional options for gas users, security of supply and the potential to facilitate additional upstream gas supply projects (GGT 2003, p. 74). Some of these benefits could arise if there are capacity constraints on current gas transmission infrastructure. If these constraints do not exist, however, the benefits outlined by GGP would either not eventuate or would likely be outweighed by the economic inefficiencies of over-investment in gas transmission infrastructure.

4.62 In the medium term, the Council considers that growth in demand for the services of the GGP is unlikely to be such as to exceed the amount of capacity that can be added through additional compression (a further 60 per cent of current capacity). The cost of installing this additional compression is likely to be significantly cheaper than the cost of building a new pipeline. Were demand marginally to exceed the capacity of the GGP at maximum compression (as is suggested by the most optimistic forecast available to the Council), it is likely that looping would still be cheaper than building a new pipeline to service that demand.

4.63 The Council notes GGT's argument that, as resource development occurs, further investment in pipeline infrastructure will become necessary. The Council agrees with this view but, on the evidence before it, considers it unlikely that resource development sufficient to warrant investment in new pipeline infrastructure will occur in a timeframe appropriate to consideration of this application.

Develop existing pipelines

4.64 As noted by the Tribunal in the Duke EGP decision, criterion (b) includes consideration of whether it would be economic to develop an existing pipeline to provide the services provided by the GGP. In this context, a question exists as to whether a lateral pipeline could be built from the DBNGP to provide the services of the GGP. Indeed, Newmont notes that "[p]rior to the construction of the GGP, the then Joint Venturers examined the possibility of constructing a lateral from the DBNGP to supply those operations that subsequently became customers of the GGP but found it to be uneconomic compared to the chosen route." (Newmont, p. 15)

4.65 As noted above, the application points to the proposal to build the GEMM pipeline (and government support of that project) as evidence of the viability of bypassing the GGP. The GEMM proposal is for a lateral pipeline to be built from the DBNGP in the vicinity of Geraldton to Mt Margaret, to support development proposals by Anaconda. According to the application, the GEMM would have capacity of 306 TJ/d and would have a build cost of around $398 million (GGT 2003, p. 68). GGT suggests that the GEMM proposal demonstrates that:

> *… as gas demand grows, additional infrastructure is going to be required, both in order to capture the new economies of scale which will become available, as well as to satisfy the market demand once the maximum capacity of the GGT is exceeded. The key issue becomes one of the timing of the future growth in market demand. (GGT 2003, p. 67)*

4.66 GGT notes that the GEMM proposal has been deferred, but understands that the deferral "arises primarily from considerations associated with the company's financial position and is not aware of any statements or other evidence to indicate that the economic rationale underlying the proposal is fundamentally altered by this announcement." (GGT 2003, pp. 66-67)

4.67 Submissions suggest that, at this point, the GEMM proposal is no longer considered viable. Anaconda, the project's proponent, notes that it has advised the market that "[t]he Mt Margaret project was not an attractive investment proposition at the time", and that all work on the Mt Margaret project and related developments has ceased (Anaconda, p. 36). In particular, Anaconda states that "the viability of the projects necessary to underwrite such an investment [as the GEMM] has not been established", and that "the gas loads

associated with this pipeline are, today, a little less real than GGT may appreciate." (Anaconda, pp. 35-36)

4.68 Even were the project considered viable, it is not clear to what extent the GEMM would be able to provide all the services provided by the GGP. The GEMM lateral itself, stretching between the two pipelines, appears likely to service few, if any, of the GGP's existing customers. Anaconda notes that the GEMM "would not have served any of GGT's current customers (no gas is produced at Geraldton and only a few GGP Shippers are located on its route)." (Anaconda, p. 34) Unless the GEMM were extended to run in parallel with the GGP south of Mt Margaret (which has not been proposed), transport to customers in this region would require transport on the GGP itself. Accordingly, the ability of the GEMM to service customers currently serviced by the GGP would be limited by the availability of capacity on the DBNGP from Dampier to Geraldton, which the Council understands is constrained, and on the GGP south of Mt Margaret. The competitiveness of such a transport route compared with the GGP would be partly dependent on the cost of transporting gas on these other pipelines.

4.69 Newmont has estimated, on the basis of figures provided in the application, that throughput of between 70 TJ/d and 100 TJ/d would be necessary in order for the GEMM (or another lateral) to compete with the GGP (Newmont, p 16).

4.70 The only existing lateral pipeline from the DBNGP is the Mid-West pipeline, which runs from north of Geraldton to Windimurra and was built to supply the now-closed Windimurra Vanadium plant. As with the GEMM pipeline, it is not clear to what extent a combination of the DBNGP and the Mid-West pipeline could provide the services of the GGP. The capacity of the Mid-West pipeline, at 20 TJ/d, is significantly below that which would be needed to provide a significant portion of the services of the GGP; this would be the case even were its capacity able to be doubled. As with the GEMM, the pipeline's ability to provide the services of the GGP would be dependent on there being spare capacity in the DBNGP and, unless the pipeline were extended to run in parallel with the GGP, its ability to reach the GGP's customers would appear to be limited.

4.71 Newmont argues that the Mid-West pipeline is "hardly supportive of a claim that it is economically attractive to construct a lateral from the DBNGP, as the Windamurra plant has now ceased operation and at least one of the Joint Venturers in the pipeline

project (Wester Power Corporation) has written off the majority of its initial $25 million investment" (Newmont, p. 15).

4.72 The Council notes the possibility that a lateral pipeline could be constructed from the DBNGP to (at least partly) provide the service of the GGP. However, such a development would not be economic at present, given: the current outlook for demand growth for the GGP's services; and the potential to increase substantially the capacity of the GGP through compression at relatively low cost compared with the construction of a new pipeline such as the GEMM.

Conclusion on criterion (b)

4.73 The Council is affirmatively satisfied that, for the likely range of reasonably foreseeable demand for the transportation of gas on the GGP, it is more efficient, in terms of the costs and benefits to the community as a whole, for the GGP to provide those services rather than for those services to be provided by more than one pipeline. The Council's final recommendation is therefore that criterion (b) is met.

5 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 criterion (a)

5.1 Criterion (a) specifies that coverage is only warranted if regulated access would create the conditions or environment for improving competition in at least one market other than the market for the services of the gas pipeline.

5.2 The purpose of criterion (a) is to limit declaration to circumstances where it is likely to enhance the environment for competition in any dependent market(s). Whether competition will be enhanced depends critically on the extent to which the service provider has the ability and incentive, in the absence of coverage, to use market power to adversely affect competition in the dependent market(s).

5.3 In assessing whether criterion (a) is satisfied, the Council must:

(a) define the relevant market(s) in which competition may be promoted and verify that this market or these markets are separate from the market for the service to which access is sought; and

(b) determine whether access (or increased access) facilitated by coverage would promote a more competitive environment in the additional market(s), which requires an assessment of:

(a) whether the provider has the ability and incentive to exercise market power to adversely affect competition in the dependent market(s); and

(b) whether the structure of the dependent market(s) is such that coverage would, by constraining the exercise of market power by the service provider to adversely affect competition in the dependent market(s), promote competition.

Defining the dependent markets

5.4 For the purpose of criterion (a), the Council needs to be satisfied as to the existence of 'at least one market … other than the market for the service' in which competition would be promoted. The words 'at least one market … other than the market for the service' require the identification of distinct markets from the market for the service.

5.5 Market definitions are required for the application of criterion (a), both:

- to identify relevant distinct markets from the market for the service; and
- to facilitate an assessment of the competition effects of coverage in those distinct markets, including a consideration of whether the ability and incentive for the provider to exercise market power to adversely affect competition in those distinct but related markets is constrained by substitution in those markets.

5.6 In considering the question of market definition, the Council is guided by the work of the ACCC (in particular, the Merger Guidelines), the Tribunal and the Courts in their consideration of market definition for the purposes of Part IV, as well as the Tribunal's and the Court's consideration of market definition in the context of Part IIIA.

5.7 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. ... Whether such substitution is feasible or likely*

depends [on a number of factors] ... in determining the outer boundaries of the market we ask a quite simple but fundamental question: If the firm were to `give less and charge more' would there be, to put the matter colloquially, much of a reaction? (Re Queensland Co-operative Milling Association Ltd (1976) 25 FLR 169 at 190).

5.8 This view of market has been accepted by the High Court in a number of decisions (see in particular the Queensland Wire decision) and applied by the Tribunal in the context of Part IIIA (see the Sydney Airport and Duke EGP decisions).

5.9 A purposive approach is taken to market definition in Australian trade practices law: Queensland Wire; Australian Meat Holdings decision; Singapore Airlines Ltd v Taprobane Tours WA Pty Ltd. The market must be defined by reference to the conduct to be assessed:

> *…the process of identification of the relevant market must be carried out keeping in mind the object of doing so.* (Australian Meat Holdings decision)

5.10 The starting point for delineating the market is the service provider and the facility, the market power of which is to be assessed for the purposes of criterion (a). As stated by the Full Federal Court in the Queensland Wire decision:

> *In our view, in defining the market or markets involved in a particular dispute, one should begin with the problem at hand and ask what identification of market best assists in analysing the processes of competition, or lack of competition, with which the case is concerned.* (1987) 78 ALR 407 at 415; (1988) ATPR 40-841 at 49,074-49,075.

5.11 The Tribunal and the courts have established four dimensions to 'market' definition, namely product, functional, geographic and temporal dimensions.

(a) The <u>product market</u>, that is the types of goods and services in a market. Separate product markets exist if their respective products are not substitutable in demand or supply. Products are demand substitutes (and are therefore in the same product market) if consumers will substitute away from one product towards another following a SSNIP in the relative price of the first product. Substitution in supply occurs when a producer can readily switch its assets from producing one product to another in response to a

SSNIP in the relative price of the first product. Market entry can be distinguished from supply side substitution by the requirement for significant investment in production, distribution or promotion.

(b) The 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 Airport case*[7] which is consistent with the approach used by the High Court in the Queensland Wire decision and developed by Mr Henry Ergas (Ergas 1997, pp. 1 - 3). The Council considers that the two following conditions must be satisfied before markets can be regarded as functionally separate.

(a) 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.

(b) 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.

(c) 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.

(d) The temporal dimension of the market. This refers to the period over which substitution possibilities should be considered. The temporal dimension may impact on how broadly the market is defined. With a longer time dimension, the ability of consumers to substitute to other

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7 See paras 91 – 99.

sources of supply in response to a price increase is likely to be greater. For example, with a sufficiently long time dimension, gas consumers can switch to alternative fuels (e.g., oil) or sources of power (e.g., electricity) in response to an increase in the price of natural gas.

5.12 The Council has considered each of these factors in its assessment of criterion (a).

Submissions on Council's approach to defining dependent markets

5.13 GGT and WMC make a number of comments on the Council's approach to market definition in their submissions in response to the Draft Recommendation.

5.14 In its submission, WMC comments on the Council's use of the SSNIP test in defining the dependent markets of relevance to coverage of the GGP. WMC states:

> *The exercise of defining a market and considering whether competition would be promoted in a market, is not an exact science. There is no formula or test that can be applied. Rather, there are a range of tools which can be used to assist in defining relevant markets and in assessing competition in markets. The tools which are appropriate in any particular matter will depend on a range of factors. The SSNIP test or hypothetical monopolist test, as it is otherwise known, is an example of such a tool. So too is the framework adopted by Professor Ordover and Dr Lehr in analysing criterion (a) in the Moomba to Sydney Pipeline revocation application. In WMC's submission, these tools and frameworks can be extremely useful. However, care needs to be taken not to set them up as the only methods by which criterion (a) can be examined or as an end in themselves. The SSNIP test, in particular, must be applied carefully to ensure that its application tests the substitution possibilities relevant to the market power being considered. Substitution possibilities between two products may not be symmetrical.*
>
> …
>
> *The Draft Recommendation makes extensive use of the SSNIP test in market identification. The SSNIP is one test proposed in the ACCC's Revised Merger Guidelines. However, the SSNIP test has not been adopted by the Tribunal and the courts in Australia. The use of a SSNIP test in a merger context, where the pre-existing market is generally assumed to be competitive and the impact of the merger is to be assessed,*

is quite different from the context of the evaluation of market power which is conducted for the purposes of criterion (a) of the Gas Code.

5.15 WMC, however, does not consider that the use of the SSNIP test is inappropriate.

5.16 The Council observes that the 'SSNIP test' is no more than an inquiry into substitution possibilities. Substitution between products does not occur in a vacuum, but rather occurs in response to changes in the relative prices of those products, as noted by the Tribunal in *Re Queensland Co-operative Milling Association Ltd*'. The SSNIP test is an articulation of the inquiry into this substitution between products in response to changes in relative prices.

5.17 The Council agrees with WMC's submission that market definition is not an exact science and their suggestion that the process of market definition will, in practice, vary from case to case.

5.18 The direct approach to examining substitution possibilities, or applying the hypothetical monopolist test, is to estimate demand elasticities. In the absence of data, indirect evidence may be used to assess the substitution possibilities available to consumers, for example evidence of price correlation, shipment flows and qualitative evidence, such as evidence that buyers have shifted or are considering shifting their purchases in response to relative price changes.

5.19 The inquiry into substitution possibilities, and the application of the SSNIP test, is necessarily imprecise in the majority of cases due to the lack of availability of the information required to estimate demand elasticities for a direct approach. As such, the Council uses the SSNIP test as an analytical framework to focus the inquiry into market definition on the qualitative evidence available in the present matter. The use of the SSNIP test as an analytical tool, in this manner, is expressly endorsed by the Federal Court in *Davids Holdings Pty Ltd v Attorney-General of the Commonwealth* (1994) ATPR 41-304.

5.20 The Council agrees with the WMC submission that there is no precise 'rule' with respect to the price increase to be considered in applying the SSNIP test. WMC states (at p6):

[T]here is a question as to the appropriate level of price increase that one tests by application of the SSNIP. The Draft

> *Recommendation applies a 5% increase in price. There would, however, seem to be no rigid rule about the percentage level which is appropriate. The Revised Merger Guidelines of the ACCC do not nominate any particular figure for the SSNIP test. Economists and commentators frequently recognise the imprecise nature of the SSNIP and speak of a range of potential price increases - often between 5 and 10%.*

5.21 As discussed above, the Council applies the SSNIP test in the definition of the dependent markets to focus the inquiry into substitution possibilities based on the qualitative evidence available in the present matter. The Council considered, by way of example, a 5% increase in price, consistent with the fact that in antitrust economics a SSNIP is usually taken to be 5% for one year (Church and Ware 2000, p603). In view of the nature of the Council's use of the SSNIP test in defining the dependent markets, the Council does not consider the price increase considered, by way of example, to be critical to its conclusions on market definition.

5.22 WMC identifies potential issues with use of the SSNIP test in defining markets where the purposes of market definition is to facilitate an assessment of existing market power. Specifically, as set out in paragraph 5.14 above, WMC states:

> *The use of a SSNIP test in a merger context, where the pre-existing market is generally assumed to be competitive and the impact of the merger is to be assessed, is quite different from the context of the evaluation of market power which is conducted for the purposes of criterion (a) of the Gas Code.*

5.23 It would appear that WMC has in mind the cellophane fallacy previously raised in its submission of 15 May 2003 at p38. As discussed in greater detail at paragraphs 5.138 to 5.141 below in response to that submission, the cellophane fallacy is the failure to recognise that a firm with market power always prices where demand is elastic to maximise prices, with the result that it will be more likely that there will be identifiable substitutes at prevailing prices which reflect the exercise of market power.

5.24 The distinction between the use of the SSNIP test in the merger context and its use in assessing pre-existing market power is one of the purpose of market definition in each case, rather than due to an assumption in merger cases that the pre-existing market is competitive. In merger cases, the cellophane fallacy does not normally arise in a consideration of a SSNIP above prevailing prices because the issue is not whether market power is presently

being exercised, but whether the merger would create or enhance existing market power. (See, for example, Richard A Posner, Antitrust Law: An Economic Perspective (1976) at pp128-129.)

5.25 By contrast, in defining markets for the purpose of assessing existing market power and the potential for regulation to promote competition, the focus is on the existing exercise of market power. The relevant inquiry is whether the service provider is able to exercise market power at competitive prices - that is, whether close substitutes exist at competitive prices. Prevailing prices may reflect the exercise of the market power that market definition is intended to assist in identifying.

5.26 Accordingly, observation of substitution possibilities at prevailing price levels may result in the delineation of an overly broad market or markets. This will be the case whether the examination of substitution possibilities at prevailing prices occurs by means of a consideration of the SSNIP test or otherwise. It is the substitution possibilities existing at prevailing prices that may be subject to the cellophane fallacy, not the SSNIP test itself.

5.27 As a result, an examination of whether prevailing prices differ from competitive prices may be required in defining dependent markets in the event that an examination of substitution possibilities at prevailing prices identifies close substitutes for the product in issue. In the present matter, however, an examination of substitution possibilities at prevailing prices did not identify any close substitutes for delivered gas. That is, neither diesel, electricity supplied by Western Power via the Muja-Kalgoorlie transmission line nor LPG are found by the Council to constitute close substitutes for delivered gas at prevailing prices.

5.28 This is not to say that, in circumstances where close substitutes were identified by the Council as a result of its consideration of substitution possibilities at prevailing prices, the Council would not go on to consider whether prevailing prices diverged from the competitive level. However, this was not necessary in the present matter.

5.29 GGT also submits in its response to the Draft Recommendation that 'the application of the SSNIP analysis appears to be flawed' by reference to the cellophane fallacy:

> *For example, consider for the moment what would have been the outcome if the SSNIP analysis of the delivered price of gas was substantially higher than it is in reality, for instance if*

> *GGT were actually (as the NCC appears to presume) engage in price maximising behaviour. In such a circumstance, one might expect the delivered price of gas from the GGP to be close to the price of the prevailing energy alternatives. On the basis of a SSNIP analysis, the NCC would then have concluded that gas and its alternatives were indeed competing in the same market. If, however, the GGT were constrained (as it is) by the State Agreement to a price which results in a delivered price of gas that is well below the price of alternative energy, a SSNIP by GGT would not lead to substitution away from gas. A different conclusion as to market structure would be reached when the only material difference in circumstances was the imposition of a "cap" on the price which could be charged by one of a number of alternative suppliers. Clearly the SSNIP analysis cannot be relied upon to inform conclusions about market structure. (p.4)*

5.30 In essence, GGT contend that if it had the ability and incentive to exercise market power and was engaging in monopoly pricing, as a result, a SSNIP analysis could be expected to identify potential substitute energy sources to gas. That is, the failure to identify close substitutes for delivered gas in undertaking a SSNIP analysis demonstrates that GGT is not charging the profit maximising monopoly price. While it is true that the Council would generally expect a bottleneck monopolist to charge the profit maximising monopoly price, at which price a SSNIP analysis could be expected to identify close substitutes, the evidence before the Council suggests that GGT's posted tariffs (which tariffs are assumed for the Council's assessment of market definition and monopoly pricing) may represent minimum prices which are not, in fact, accessible to new users.

5.31 Finally, WMC contends that in defining the dependent markets, the Council has had insufficient regard to the purpose of market definition. Specifically, WMC makes the following comments in relation to the Council's use of the SSNIP test in examining the substitution possibilities between diesel and gas for use in electricity generation (at 7):

> *The Draft Recommendation uses the SSNIP test when discussing substitution between diesel fired generation and gas fired generation in mining projects. Paragraph 5.109 refers to the Frontier Economics Report that outlines the factors that any mine might consider when deciding between these two sources of power. The Draft Recommendation then proceeds to state at paragraph 5.110:*

> In the event that, having regard to these factors, the cost differential between diesel and gas fired generation is significantly large, say greater than say 5 per cent, then gas and diesel will not be in the same market. Projects will not substitute towards diesel in response to a 5 per cent increase in the delivered price of gas.
>
> *From this paragraph it is not clear whose market power is at issue. The reason for defining downstream markets is to assess the effect on competition. That is, the issue would seem to be the ways in which declaration might affect competition in the downstream market by constraining the market power that might otherwise be exerted by the suppliers of diesel fuel. If that is the purpose of the market definition, the relevant SSNIP would be one initiated by the sellers of diesel fuel. The question would then become whether that price increase might be defeated by encouraging a sufficiently large number of (new) mines that might otherwise use diesel to use natural gas.*

5.32 The Council agrees with WMC's submission (at 5) that the purpose of market definition in assessing criterion (a) is to facilitate:

(a) an analysis of the market power of the owner of the pipeline in respect of which coverage is sought, here GGT; and

(b) an analysis of the effects of coverage or continued coverage on competition in dependent markets.

5.33 The Council also agrees with WMC's submission that:

> *…in applying the SSNIP test, the starting point should be an increase in price by the firm whose market power is in question.* (WMC Submission of 22 October 2003, at p6)

5.34 An examination of substitution towards diesel in response to an increase in the relative price of delivered gas is entirely consistent with the purpose of market definition in the context of a decision to recommend coverage or continued coverage under the National Gas Access Code. As noted in paragraph 5.32 above, the purpose of market definition for the criterion (a) assessment in the present matter is, in part, to facilitate an analysis of the market power of GGT. It is for this reason that the Council considers, as its starting point in assessing substitution possibilities in the downstream market(s) an increase in the relative price of delivered gas.

5.35 The Council has, however, reviewed its approach to market definition in light of WMC's submissions regarding the purpose of market definition in the context of criterion (a). As a result, the

Council has refined its inquiry into upstream market definition. However, the refinement of its inquiry has no implications for the market boundaries identified by the Council.

Market analysis

5.36 In its application, GGT submits:

> *In practical terms, the markets relevant to this consideration of market power can be distinguished and defined as follows:*
>
> *(1) The upstream market, being any gas producer that is physically or potentially able to access the Western Australian gas transmission network,*
>
> *(2) The downstream market, which comprises three distinct market segments;*
>
> *(i) the southern geographical end of the GGP in the vicinity of Kalgoorlie which is serviced by reticulated electricity from the SWIS and in which region, gas is delivered via the GGP for the purpose of competing in the market for electricity (estimated to comprise approximately 40-45% of total GGP throughput);*
>
> *(ii) the geographical region north of Kalgoorlie through which the GGP passes and competes with diesel for the remote stand-alone generation of electricity (estimated to comprise approximately 50% of GGP throughput), and*
>
> *(iii) the provision of gas for its inherent use, being mainly as industrial process gas but also for domestic consumption (estimated to be approximately 5-10% of total GGP throughput).*
>
> *(3) The transmission market, which, given that the overwhelming characteristic of the downstream market into which the GGP delivers gas is for the generation of electricity (i.e. 90-95% of gas delivered represents "unprocessed electricity"), must be taken to be the transmission of energy within an interconnected transmission network.* (GGT 2003, p. 22)

5.37 For the reasons discussed below, the Council considers that the relevant dependents markets are:

(a) an upstream market for gas production and gas sales in the Varanus Island hub;

(b) a downstream gas sales market;

(c) a downstream retail gas sales market in the Kalgoorlie-Boulder area; and

(d) a downstream retail electricity market in the area in the vicinity of Kalgoorlie and connected to the SWIS.

Transmission

5.38 In its application, GGT defined a transmission market, being a market for the transmission of energy within an interconnected transmission network. In response, WMC submitted that the definition of the market in which GGT supplies the service as a market for the transmission of energy within an interconnected transmission network 'finds no support in law or economics' (WMC Submission 1, section 3.1).

5.39 The Council considers that an assessment of criterion (a) does not require a precise definition of the boundaries of the market for the access service. What must be determined is whether there are distinct markets; that is, the market(s) in which competition is said to be promoted (i.e. the dependent market(s)) must be shown to be different from the market for the access service. Accordingly, the Council does not consider it is necessary to precisely define the boundaries of the market in which GGT supplies the Service.

5.40 Further, the Council is satisfied that the dependent markets in which the production and sale of gas occur, the parameters of which are defined below, are functionally distinct to the market in which the GGP provides gas transmission services for the following reasons.

5.41 First, the transaction costs associated with the separate provision of gas transmission services, and gas production and sales are not so large (for example, there are not such overwhelming economies of joint production or consumption) as to make vertical integration inevitable. That is, gas transmission services, and gas production and sales are *economically separable*.

5.42 Second, the provision of gas transmission services uses assets sufficiently specific to that activity such that the assets used in

another vertically related activity, e.g. gas production and processing or gas sales, cannot readily produce gas transmission services. That is, the provision of gas transmission services is *economically distinct* to other vertically related activities, such as gas production and processing, and gas sales.

5.43 In reaching this conclusion, the Council is also guided by the conclusions of the Tribunal in AGL Cooper Basin Supply Arrangements and the Duke EGP decision.

5.44 In AGL Cooper Basin Supply Arrangements and the Duke EGP decision, the Tribunal established that there are a number of functional areas to be considered in defining natural gas markets, including transmission, exploration, production/processing, sales and distribution/reticulation. In the Duke EGP decision, the Tribunal accepted that gas transmission services are provided in functionally distinct markets from other services:

> *It was agreed that gas transmission services are provided in the gas transmission market which is functionally separate from other parts of the gas market. Other functional areas are exploration, production/processing, sales and distribution/reticulation*. (Duke EGP decision, paragraph 77).

Upstream market

Application

5.45 GGT contends that the relevant upstream market is a market for gas production and processing at each of the Carnarvon, Perth and Bonaparte basins as:

> *…all of the state's existing production, and the majority of its future potential gas reserves (with the possible exception of Browse and Bonaparte Basins) can potentially access all of the existing Western Australian domestic gas transmission pipeline infrastructure. … the existing terms of access for these pipelines, means that these transmission pipelines are effectively interconnected (with the physical installation of some interconnection hardware only awaiting the appropriate commercial imperative).* (GGT 2003, p. 23)

5.46 Accordingly, in defining the boundaries of the upstream market, it is necessary to consider whether:

(a) the upstream market is a market for the production and sale of natural gas for domestic consumption only, or a market for the production and sale of natural gas and LNG; and

(b) the upstream market is comprised of current and future potential gas reserves presently able to access the GGP (i.e. those in the Varanus Island hub) or all of the state's current and future potential gas reserves.

Product dimension

5.47 The purpose of market definition under criterion (a) is to facilitate an assessment of whether the natural monopoly possessed by the GGP confers on GGT an ability and incentive to exercise market power to adversely affect competition in the dependent markets. In particular, market definition enables an assessment of whether there are effective constraints on GGT's ability and incentive to exercise power in the dependent markets. In defining the product dimension of the upstream market, therefore, the starting point is the product supplied via the GGP, namely natural gas. Thus, the starting point for the definition of the upstream market is a market for natural gas production and gas sales.

5.48 An issue for the Council is whether the upstream market is a market for the production and sale of natural gas only, or also includes LNG production and sales. This issue turns on whether natural gas and LNG are close substitutes (and thus in the same market) or poor substitutes (and thus not in the same market). In determining whether natural gas and LNG are close substitutes, regard must be had to both demand-side and supply-side substitution.

5.49 There is no demand-side substitution between natural gas and LNG. However, on the supply-side it is technically possible to convert natural gas into LNG. Nonetheless, natural gas and LNG will not be close substitutes unless supply-side substitution is both technically and economically feasible.

5.50 In exploring whether supply-side substitution is technically and economically feasible, the Council has regard to the purpose of defining the upstream market, namely to facilitate an assessment of whether producers of natural gas supplied via the GGP could and would substitute towards supply of alternative products in response

to a change in the relative price they receive as a result of an exercise of market power by GGT.

5.51 Regarding the economic feasibility of supply-side substitution between natural gas and LNG, evidence before the Council suggests that there are economic limitations on the production of LNG from natural gas related to the size of a producer's gas reserves and the capital cost of LNG plant. Submissions from Anaconda and Newmont address this issue:

> *[T]he option of entering the LNG market is not available to all gas producers / sellers. Entry to the LNG market requires that a gas producer:*
>
> - *have sufficient Proved Reserves to justify LNG plant investment (typically considered to mean reserves exceeding 2000 PJ); or*
>
> - *is located in close proximity to an existing LNG production facility and is able to reach agreement on selling / tolling its gas to / through the LNG plant.*
>
> *The North West Shelf now boasts a number of gas fields and oil fields (the latter with "associated" gas to dispose of) which simply do not have sufficient reserves to underwrite an LNG project and which are located at too great a distance from any existing LNG plant to consider processing their gas in an LNG plant owned by another producer. These gas producers have the option of not selling gas or selling gas into the domestic gas market. The situation of oil producers is even more onerous because they have to either suspend oil deliveries or re-inject associated gas if they are unable to sell their associated gas into the domestic market.* (Anaconda, pp. 23-24)
>
> *Nor do small producers have the option of supplying for export which would enable them to threaten to cease use of the GGP and export instead of supplying locally. Export requires massive gas reserves and a cripplingly expensive LNG plant - way beyond the capacity of the smaller producers. Consequently, export markets are only an option for the major players.* (Newmont, p. 26)

5.52 The North West Shelf Venture is Western Australia's sole producer and exporter of LNG, as well as the producer of a substantial proportion of the State's natural gas for domestic consumption. Woodside Energy processes North West Shelf gas at LNG and gas processing plants at Dampier, with capacities of 7.5 Mt/a and 700 TJ/d respectively (Western Australia Office of Energy, pp. 21-27).

5.53 The fact that the North West Shelf Venture produces both LNG and natural gas for domestic consumption using North West Shelf gas does not, necessarily, mean that the production of LNG and natural gas for domestic consumption occur in the same market.

5.54 Anaconda, in its submission, discussed the relationship between LNG production and natural gas production (at 23). Anaconda asserted that the LNG and domestic gas markets should not be aggregated for the purposes of the criterion (a) assessment, as the LNG and domestic gas markets are distinct markets without a significant competitive interface. Anaconda contended that it is not economically feasible for LNG producers to divert gas from LNG production to the production of natural gas for domestic consumption as LNG production occurs under long-term contracts required to underpin the capital investment in LNG processing plant. Anaconda also contended that natural gas production and sales, and LNG production and sales, occur in quite distinct markets, and referred to significant variation in the risks and net-back returns from LNG production and natural gas production in support of this proposition.

5.55 In particular, Anaconda stated:

> *…LNG plant capacity is seldom built, and LNG is seldom bought or sold, other than under long term contract. Very small spot sales of LNG have only recently begun to appear in the market. Thus, LNG producers seldom have unutilised LNG production capacity or unsatisfied markets. That is to say, the pre-conditions for the serious switching of production between LNG and domestic gas markets rarely arise. The principal choice between servicing the LNG market and servicing the domestic gas market is made prior to major plant developments / expansion.* (Anaconda 2003, p.23)

5.56 One issue that arose in submissions in relation to the competitive interface between LNG and natural gas production was the extent to which the net back price for natural gas approximates the net back price for LNG. An approximation between the net back price for natural gas and the net back price for LNG may be indicative of supply-side substitution between the production of natural gas and the production of LNG.

5.57 Anaconda asserted that while the net back price for LNG imposes a cap on the domestic price for natural gas, competition between smaller gas producers that are unable to enter the market for LNG production and sales determines a domestic price for natural gas

below the cap (Anaconda, p. 24). Such a differential between the net back price for LNG and the net back price for gas for domestic consumption would be direct evidence of distinct product markets for LNG production and sales and natural gas production and sales.

5.58 Examination of publicly available information on LNG export prices and conversion costs, and domestic gas prices, together with the Council's discussions with interested parties, however, suggest that the net-back prices for domestic gas and LNG may approximate one another. The Council understands that domestic gas prices range between $1.50 and $2.50 per MMBtu, depending on a range of factors including the size of the individual contract. By comparison, the following table extracted from *Gas Briefing International*, May 2003, states that the current Japanese price for Australian produced LNG is US$4.79 (at p. 19):

Japanese LNG Prices (cif $/MMBtu)

	2002					2003
	Oct	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**
Malaysia	4.48	4.47	4.52	4.59	4.59	4.61
Brunei	4.36	4.38	4.39	4.44	4.49	4.48
Indonesia	4.77	4.82	4.72	5.03	5.33	5.45
Qatar	4.52	4.53	4.59	4.59	4.58	4.6
Oman	4.60	4.55	4.51		4.95	4.71
UAE	4.42	4.49	4.52	4.52	4.6	4.62
USA	4.23	4.24	4.31	4.37	4.4	4.24
Australia	4.51	4.52	4.55	4.64	4.65	4.53
Average	**4.55**	**4.57**	**4.5**	**4.71**	**4.81**	**4.79**

5.59 In addition, the *2001 World LNG / GTL Review* published by the Zens Corporation discusses the trend for decreasing LNG processing costs. In so doing, it refers to a 1997 study, in which the conversion costs of producing, liquefying and transporting natural gas were estimated to be approximately US$3.75 MMBtu. The breakdown of costs included: US$0.50 for natural gas production; US$2.50 for liquefaction; and US$0.75 for shipping. The *2001 World LNG / GTL Review* also refers, however, to the potential for conversion costs to be significantly lower in lower cost areas. Accordingly, the conversion cost estimate set out above may significantly overstate the costs of LNG production in Western Australia, which is such a lower cost area.

5.60 Nonetheless, based on a cost of US$2.50 for liquefaction and a cost of US$0.75 for shipping (the cost of natural gas production can be ignored as it is common to both the production of LNG and the production of gas for domestic consumption), the current price in Japan for Australian produced LNG net of liquefaction and shipping costs is US$1.54. Based on the current exchange rate, this

equates to a LNG price, net of liquefaction and shipping costs, of approximately AU$2.38. This price can be compared to prices in the range of AU$1.50 to $2.50 per MMBtu for gas for domestic consumption.

5.61 Accordingly, the Council considers that there is not likely to be a significant long-term differential in LNG and domestic gas returns (although prices and returns may fluctuate widely over time). The Council notes, however, that the publicly available information, in relation to LNG conversion costs in particular, is insufficient to enable it to reach a definitive conclusion on the relationship between prices and returns for LNG exports and domestic gas.

5.62 While an approximation between the net back price for natural gas and the net back price for LNG may be indicative of supply-side substitution between the production of natural gas and LNG, it is not definitive of any competitive interface between LNG and natural gas production.

5.63 Based on the submissions of Anaconda, together with discussions with interested parties, the Council concludes that there is limited competitive interface between LNG and domestic gas production because:

(a) long term contracting for the supply of LNG underpins the investment in LNG processing plant. Long term contracts in relation to LNG production that span the economic life of a processing plant are required to underwrite the significant capital costs associated with that plant. Accordingly, there is little unutilised capacity and thus little opportunity for supply-side substitution by either LNG producers, specifically by Woodside Energy on behalf of the North West Shelf Venture, or producers of natural gas shipped via the GGP towards LNG production in response to relative price changes;

(b) the attractiveness of the LNG export market is explicable not by higher unit returns for LNG as compared to returns on domestic gas production, but by the potential volume of LNG export sales and so the potentially higher total returns associated with LNG production. As such, the decision to produce LNG, rather than gas for domestic consumption, using the raw gas extracted from a gas field is not based on a simple comparison of the price for domestic consumption and the price for LNG;

(c) supply-side substitution between the production of LNG to the production of natural gas in response to an increase in the relative price of natural gas received by producers, would require those producers to incur additional and significant transaction costs in attracting domestic customers requiring smaller volumes than LNG customers, particularly due to the prevalence of long-term contracting, which would likely make supply-side substitution in response to a change in relative prices uneconomic; and

(d) the economics of the decision whether to develop a newly discovered gas field for LNG production or natural gas production (or some other product, such as LPG) is dependent on factors such as the composition and quality of the gas in that field, the size of gas reserves in that field and the distance from an LNG and / or natural gas processing plant, such that a change in the relative price of natural gas shipped via the GGP would not make it economic to develop a field for LNG, rather than natural gas, production or vice versa.

5.64 In reaching these conclusions, the Council has had regard to the comments by WMC in its response to the Draft Recommendation. In respect of the preceding paragraph, WMC stated:

> *…WMC considers that some of the features identified by the Council as indicating little competitive interface arise because the time frame for switching considered by the Council and the approach it has adopted to the SSNIP test are overly rigid. In terms of the time horizon, WMC refers to paragraph 63 of Newmont's submission in which it speaks of the competitive interface between LNG and domestic gas production as something that should be considered in the economist's long run not in the short run. In the context of new entry, which occurs in the long run, the relevant time period is the period in which decisions to enter that market are made. Accordingly, whilst it may be true that investment in LNG plant and capacity is based on long term export contracts such that there is little unutilised LNG capacity, it is the time frame within which new entry may occur which is relevant when considering market power that may be exerted by gas producers.*
>
> *A similar issue arises from the comment by the Council that gas producers cannot readily sell more natural gas domestically because customers are tied to long term domestic contracts. This reflects a time horizon that is limited to the life of the contact [sic].*

5.65 The Council observes that while it is substitution possibilities in the longer run that are of interest in market definition, supply-side substitution does not include new entry.

5.66 A supply-side response that requires significant capital investment should be regarded as new entry and not as forming part of the market. So, for example, the Tribunal stated in *AGL Cooper Basin Natural Gas Supply Arrangements* that long run supply-side substitution possibilities is a reference to the redeployment of existing production capacity in response to relative price changes and not new entry:

> *[W]e recall that the phrase "the long run" is to be read in a special technical sense as referring not to a span of years but to "operational time" as explained in* Telecom Corporation of NZ Ltd v Commerce Commission *(1991) 3 NZBLC ¶99-239 at 102, 363:*
>
> > "We include within the market those sources of supply that come about from redeploying existing production and distribution capacity but stop short of including supplies arising from entirely new entry. Thus 'the long run' in market definition does not refer to any particular length of calendar time but to the operational time required for organising and implementing a redeployment of existing capacity in response to profit incentives."

5.67 While WMC is correct in contending that the time frame within which new entry may occur would be relevant to a consideration of market power, it would be appropriate to take such new entry into account in the competition or market power analysis not in defining the boundaries of the market of the upstream market.

5.68 WMC stated that in concluding that gas producers cannot readily sell more natural gas domestically because customers are tied to long term domestic contracts, the Council has necessarily had regard to a time horizon for market definition that is limited to the life of the contract. This does not reflect the Council's position. While the Council had regard to the long-term nature of domestic contracts for the supply of natural gas in defining the boundaries of the upstream market, it did not conclude that there could be no supply-side response due to the length of those contracts. Rather, the long term nature of domestic contracts for natural gas supply was one the matters to which the Council had regard in assessing the likely size of switching costs associated with a supply-side response by LNG producers. In so doing, the Council's conclusions

at (c) of paragraph 5.63 above do not depend on a time horizon for market definition limited to the duration of those long term domestic contracts.

5.69 The Council concludes that an approximation between the net-back price for gas and LNG likely results, not from any inter-relationship between the markets for LNG and domestic gas, but the fact that both LNG and domestic gas prices are related to world crude oil prices, as fuel oil (or its derivatives) is an alternative fuel source to both LNG and natural gas. As fuel oil is the next best alternative to LNG, for example for Japanese LNG consumers, the Council understands from discussions with interested parties that long term contracts commonly provide for variations to supply prices with movements in crude oil prices. The Council also understands from discussions with certain interested parties that domestic gas contracts may contain similar clauses that provide for variations in supply prices with movements in both crude oil and coal prices, although the Council notes WMC's submission that this is not consistent with WMC's experience of domestic gas contracts, which experience indicates that price variations under domestic gas sales contracts are commonly linked to domestic price indices such as CPI.

5.70 Alternatively, the approximation between net back prices for LNG and natural gas for domestic consumption may be explicable due to investment decisions made at the time of developing a gas field. In any event, there is no evidence that this price correlation is symptomatic of a single upstream market for natural gas and LNG for the purpose of assessing whether GGT has the ability and incentive to exercise market power, such that coverage would promote competition in the upstream market.

5.71 For these reasons, the Council concludes that significant supply-side substitution by the producers of natural gas shipped via the GGP is unlikely to occur in response to a change in relative prices. There are significant barriers to small domestic gas producers substituting towards the production of LNG or selling gas to LNG producers for conversion into LNG.

Geographic dimension

5.72 The appropriate starting point for defining the geographic boundaries of the upstream market is the producers currently served by the GGP, moving on to identify the gas producers that are

connected to or are within the scope of feasible interconnection with the GGP.

5.73 In defining the geographic boundaries of the upstream market, it is necessary to consider the geographic area over which gas producers would substitute in response to changes in the relative prices they receive.

5.74 The GGP receives gas from the offshore Harriet and East Spar gas fields at Yarraloola, which is close to Compressor Station 1 on the DBNGP. The East Spar joint venture, in which Apache and Santos have 55 per cent and 45 per cent interests respectively, owns the East Spar gas field. The Harriet joint venture owns the Harriet gas field. As disclosed by the Ventnor Report, Apache operates both the East Spar and the Harriet gas fields and is the lead marketer for gas sales for the joint ventures. (GGT 2003, Appendix 2, p. 3; Newmont, Appendix 3, paragraph 4)

5.75 Gas from both the East Spar and the Harriet gas fields is transported to the Varanus Island processing plant for processing. The Varanus Island processing plant is operated by Apache. From there, sales gas is transported via either of two 100 km pipelines (being 324 and 406 mm respectively, with an approximate capacity of 200 and 300 TJ/d respectively), connecting with the DBNGP and the GGP at Compressor Station 1.

5.76 Once the gas is on-shore, but prior to it reaching Compressor Station 1, the two 100km sales gas pipelines transporting gas from Varanus Island to the mainland join to form a single pipeline. This single pipeline then separates again into two pipelines, with one extension connecting to the DBNGP and the other crossing the DBNGP and connecting to the GGP at Compressor Station 1. Gas produced in the Varanus Island hub may be transported to a destination market by either the GGP or the DBNGP.

5.77 In addition to gas produced by the East Spar and Harriet gas fields, all gas fields located in the Varanus Island hub are able to transport gas via the two 100 km sales gas pipelines to the GGP (GGT 2003, Appendix 1, Map 5). Currently operating gas projects in the Varanus Island hub, other than the East Spar and Harriet gas fields, include Wonnich, Campbell, North Gipsy / Gipsy, Sinbad, Rosette, Tanami, Agincourt, Simpson, and Barrow Island.

5.78 With the exception of Barrow Island, (a major oil and minor gas field) owned by a joint venture comprising Chevron Texaco, Santos

and Mobil Australia, all of the above gas fields are owned by the Harriet joint venture. In addition, a large number of potential projects are located in the vicinity of the Varanus Island hub and could feasibly be developed to supply gas via the GGP should the commercial imperative exist. For example, there are currently plans to develop the Gorgon, Central Gorgon and North Gorgon projects, the significance of which are discussed at paragraphs 5.93 to 5.96 below.

5.79 Accordingly, the Council concludes that gas produced at all gas fields located in the Varanus Island hub can technically and economically be transported via the GGP. As such, all gas fields located in the Varanus Island hub are within the one geographic upstream market.

Producers interconnected with (or able to interconnect with) the GGP

5.80 An interconnection currently exists between the DBNGP and the GGP for use in supply emergencies and a more permanent interconnection is technically feasible should the commercial imperative exist (GGT 2003, Appendix 2, p. 4).

5.81 A gas producer, not connected to the Varanus Island hub fields, would need access to the DBNGP and then interconnection between the DBNGP and the GGP before they could transport gas along the GGP. A producer may be able to negotiate the necessary access and interconnection or may be required to utilise the mechanisms under the National Gas Access Code, which provides for rights of interconnection. The mechanisms under the National Gas Access Code are only available if the pipelines are covered. While interconnection of the DBNGP and the GGP might be technically feasible, there remain significant commercial barriers to interconnection.

5.82 Determining whether the supply of gas from the North West Shelf or the Tubridgi gas field to the GGP via an interconnection between the GGP and the DBNGP is feasible also requires a consideration of the inlet gas specifications in respect of the DBNGP and the GGP. GGT contended in its application that:

> *[T]he gas specification for all these pipelines [i.e. the GGP, DBNGP, Midwest and proposed GEMM pipelines] is very similar and certainly sufficiently close so as not to present*

any barrier to entry for one pipeline relative to another. (GGT 2003, p. 28)

5.83 Briefly, the DBNGP Regulation provides that gas for transport in the DBNGP must achieve a particular quality inlet specification. The gas specification approved by the Regulator in the Final Decision on the DBNGP Access Arrangement is, however, a more limited gas specification than that set out in Schedule 1 to the DBNGP Regulation (Final Decision on the DBNGP Access Arrangement, pp.126 & 127). The more limited gas specification is due to contractual obligations of Epic Energy in respect of the quality of gas delivered by the DBNGP to the Wesfarmers LPG production plant.

5.84 The Council concludes, however, that the DBNGP gas specification does not prevent the feasible interconnection of the DBNGP and the GGP or the supply of NWS gas to destination markets located along the route of the GGP. The Council understands from information provided in GGT's application that the GGP gas specification is wider than the DBNGP gas specification for gas delivered to the DBNGP.

5.85 In other words, gas that meets the DBNGP gas specification will meet the GGP gas specification. Accordingly, the DBNGP gas specification does not raise a technical barrier to the transportation of gas produced by North West Shelf gas producers to destination markets located along the route of the GGP.

5.86 In addition to the supply of gas produced in the Varanus Island hub to destination markets located along the route of the GGP, Varanus Island gas is also supplied to destination markets located along the route of the DBNGP. The two 100 km sales gas pipelines that transport gas on-shore from Varanus Island converge into one pipeline on-shore, prior to separating again into an extension that connects with the DBNGP and an extension that connects with the GGP. The convergence of these two 100 km sales gas pipelines into one sales gas pipeline on-shore likely means that all gas processed at the Varanus Island processing plant meets the DBNGP gas specification, as a portion of the gas transported through this pipeline is subsequently to be transported by the DBNGP.

5.87 For these reasons, the Council considers that a permanent interconnection between the DBNGP and the GGP, as GGT contended, is technically feasible. The capacity constraints on the DBNGP (discussed further at paragraphs 5.264 to 5.266 below)

would not prevent North West Shelf producers from supplying gas to destination markets located on the route of the GGP. Gas produced on the NWS currently transported by the DBNGP could be diverted to the GGP at Compressor Station 1.

5.88 The evidence before the Council suggests that North West Shelf gas producers would not supply gas to destination markets on the route of the GGP in response to a change in the relative price they receive for gas delivered to destination markets on the GGP because:

(a) the fact that, although technically feasible, interconnection of the DBNGP and the GGP has not occurred to date suggests that interconnection would not be economic for such a SSNIP;

(b) the time and resources involved in the negotiation of access to the DBNGP for the transportation of gas from the North West Shelf to Compressor Station 1, and an interconnection between the DBNGP and the GGP at Compressor Station 1, in accordance with the National Gas Access Code and access to the GGP would likely make it uneconomic to supply North West Shelf gas to destination markets located on the route of the GGP in response to such a SSNIP;

(c) there may be greater transportation costs in respect of the supply of North West Shelf gas to destination markets along the route of the GGP, due to the need to transport gas from Dampier to Compressor Station 1 on the DBNGP, such that it would not be economic to supply North West Shelf gas to destination markets along the route of the GGP in response to such a SSNIP;

(d) greater returns may be earned in respect of the high quality gas produced on the North West Shelf by supplying it to destination markets located on the route of the DBNGP, due to the potential for returns from contractual arrangements for blending on the DBNGP with lower quality gas from other gas fields: and

(e) although it is possible for producers other than North West Shelf producers to supply gas to destination markets on the route of the GGP by means of contractual arrangements, the time and resources involved in the negotiation of these contractual arrangements, of an interconnection between the DBNGP and the GGP in accordance with the National

Gas Access Code (where necessary) and of access to the GGP would likely make it uneconomic for these producers to supply gas to destinations along the route of the GGP in response to a SSNIP in the relative price of gas supplied to these destinations markets.

5.89 Therefore, the Council concludes that the geographic dimension of the upstream market is limited to the Varanus Island hub.

Temporal dimension

5.90 The dimensions of gas sales markets evolve over time. The temporal dimension of market definition is the period of time over which substitution possibilities in demand and supply should be taken into account in defining the product, geographic and functional parameters of market definition.

5.91 In defining the temporal dimension of a market, the focus is not on a "short-run transitory situation"[8] but on the substitution possibilities that are available in the foreseeable future. It is important in this regard to distinguish between supply side substitution possibilities and new entry. As the ACCC noted in its Merger Guidelines:

> *Where substitution requires significant new investment by producers or consumers, these sources of competition will not be included in the relevant market but will be considered under market entry.* (ACCC 1999, paragraph 5.75)

5.92 The Council is not aware of any changes in the foreseeable future that would alter substitution possibilities in demand or supply, relevant to the definition of the upstream market. Accordingly, the Council concludes that the upstream market is a market for natural gas production and sales in the Varanus Island hub.

5.93 In reaching this conclusion, the Council has had regard to GGT's submission that:

> *…the Draft Recommendation appears to ignore the future relevance of the Gorgon development, stating instead that the NCC is not aware of any foreseeable future prospects for change in the upstream market. GGT would direct the NCC towards consideration of the many public statements which*

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8 *Re Tooth & Co Ltd; In re Tooheys Ltd* (1979) ATPR 40-113 at 18,196

indicate the potential effects of increased competition in supply on the domestic market - statements which generally include specific references to the Goldfields region - associated with the development of Gorgon gas.

Certainly one must conclude that present and potential future Varanus Island hub producers have real economic alternatives to selling gas via the GGP (whether or not they satisfy the theoretical economic hurdles established by the NCC). (GGT Submission of 22 October 2003, p7)

5.94 The Gorgon gas field is a large uncommitted gas field located in the Varanus Island hub. The Gorgon Venture, an unincorporated joint venture consisting of ChevronTexaco, Shell and ExxonMobil, propose a development plan for the Gorgon field that includes the installation of a sub-sea gathering system and a 70 kilometre sub-sea pipeline to Barrow Island, and a gas and LNG processing facility located on the central-east coast of Barrow Island. LNG would be delivered by ship to international markets and compressed domestic gas would be delivered via a sub-sea pipeline to the Western Australian mainland for use domestically.

5.95 While it may be many years before the Gorgon development is complete (for example, Barrow Island is a Class A Nature Reserve and Commonwealth and State environmental processes are only commencing following passage through Parliament of the Gorgon State Agreement Act 2003 in November 2003), the Council accepts that the development will likely occur within the foreseeable future. Nonetheless, the Council does not consider that the Gorgon development will alter substitution possibilities in demand or supply, relevant to the definition of the upstream market.

5.96 The Gorgon development includes plans for a LNG processing facility. However, the Council understands that in keeping with industry practice, the development of this facility will be underpinned by long-term supply contracts that span the economic life of the facility entered into by the Gorgon Venture: see for example the media statement of 24 October 2003 titled 'CNOOC and Gorgon Sign LNG Deal' posted on the Gorgon website at www.gorgon.com.au. As discussed at paragraph 5.63 above, these arrangements are likely to constrain significant supply-side substitution by producers of natural gas shipped via the GGP, in particular those producers that currently ship gas on the GGP, towards LNG production in response to relative price changes.

Downstream markets

Application and submissions

5.97 Based on its conclusion that approximately 90-95 per cent of gas transported by the GGP is used for the generation of electricity, GGT contends that the downstream market of relevance to the criterion (a) assessment is a market for energy comprised of the following three distinct market segments:

(i) the southern geographical end of the GGP in the vicinity of Kalgoorlie which is serviced by reticulated electricity from the SWIS and in which region, gas is delivered via the GGP for the purpose of competing in the market for electricity (estimated to comprise approximately 40-45% of total GGP throughput),

(ii) the geographical region north of Kalgoorlie through which the GGP passes and competes with diesel for the remote stand-alone generation of electricity (estimated to comprise approximately 50% of GGP throughput), and

(iii) the provision of gas for its inherent use, being mainly as industrial process gas but also for domestic consumption (estimated to be approximately 5-10% of total GGP throughput).

5.98 The Ventnor Report, prepared on behalf of GGT, proposes a number of downstream markets including::

(a) a market for gas for its inherent qualities - whether for process applications or for domestic use;

(b) a market for electricity, comprised of the following two segments:

(a) "stand-alone" electricity generated for remote mining and processing ventures;

(b) a market for electricity generation which is connected to the SWIS; and

(c) a market for energy for remote electricity generation.

5.99 The interested parties also consider the product dimension of some of the relevant downstream markets by reference to electricity and

electricity generation. For example, WMC submitted that the following downstream markets are relevant to the assessment of GGT's application:

> *(a) the market for electricity in the Kalgoorlie region connected to the SWIS and the local / regional distribution network;*
>
> *(b) the market for electricity generation at remote locations proximate to the route of the GGP; and*
>
> *(c) sales of gas for use as a feed stock or as a fuel for steam generation.* (WMC Submission 1, section 3.1)

5.100 In defining the downstream markets, the following issues must be considered:

(a) the soundness of defining the downstream product markets by reference to the purpose for which gas is acquired, or the use to which it is put, e.g. Ventnor (in its Report for GGT) submitted that there is a distinct downstream market for gas for its inherent qualities;

(b) the soundness of defining the downstream markets by reference to end-user location and customer class, , e.g. GGT contended that there is a downstream market for energy, which has distinct market segments defined by reference to the southern geographical end of the GGP in the vicinity of Kalgoorlie, and the geographical region north of Kalgoorlie through which the GGP passes;

(c) the competitive alternatives available to customers of different types at different locations; and

(d) whether there are distinct functional markets for gas sales.

5.101 Following its consideration of these issues, a discussion of which is set out below, the Council concludes that the relevant downstream markets are:

(a) a gas sales market at locations within reasonable proximity to the GGP, in which mining ventures and AlintaGas acquire electricity;

(b) a retail gas sales market in the Kalgoorlie-Boulder area, in which AlintaGas retails gas to residential and small commercial customers; and

(c) an electricity sales market in the area in the vicinity of Kalgoorlie connected to the SWIS.

5.102 The Council considers that there may be additional relevant downstream markets, such as the markets for iron ore, nickel and gold identified by the Ventnor. However, the Council does not consider that it is necessary to define the precise boundaries of these additional downstream markets, as it is satisfied that coverage will promote competition in the upstream market for gas production and sales in the Varanus Island hub and downstream electricity sales market in the area in the vicinity of Kalgoorlie connected to the SWIS.

Downstream gas sales markets

Product dimension - defining product markets for each end-user location and / or customer type and the relevance of purpose to market definition

5.103 As can be seen above, GGT and Ventnor, together with a number of interested parties including WMC, define the downstream dependent markets by reference to the purpose for which gas is acquired, or use to which gas is put, in some cases by a specified customer class. The Council considers that it is neither appropriate nor consistent with economic theory or Australian trade practices jurisprudence on market definition to define distinct dependent markets solely by reference to the purpose for which a product is acquired or the use to which it is put. For example, the Council considers that it is not consistent with Australian jurisprudence on market definition to define a downstream market for natural gas for its inherent qualities.

5.104 As discussed at paragraph 5.11, a market is the area of product, functional and geographic space over which close substitution in demand and/or supply occurs within the temporal dimension of the market in response to changing prices. While the purpose or use of a product may be determinative of substitution possibilities, it is these substitution possibilities that determine market boundaries, not the purpose for which a product is acquired. For example, the primary use of gas by mining ventures to generate electricity may be determinative of the available technical and economic competitive alternatives to gas. However, it is the available technical and economic competitive alternatives that determine the boundaries of the market in which gas is supplied to mining

ventures, not the purpose of electricity generation for which they acquire gas.

5.105 It may, however, be appropriate in some circumstances to define the boundaries of a geographic market based on end-user location or distinct markets for different customer types. The ACCC and Ordover and Lehr discuss this issue:

> *In some cases it will be appropriate to define separate markets for different groups of customers. This will principally occur where a supplier with market power can effectively price discriminate between groups of customers characterised by different demand elasticities and/or competitive constraints, where arbitrage is ineffective. If competitive sources of supply were available and/or arbitrage were possible, price discrimination would not be possible and a single market would be defined.* (ACCC 1999, paragraph 5.54)
>
> *Downstream, the focus is on the geographic markets that are served by distribution networks that currently purchase, or could purchase, gas delivered via the MSP. Identifying the appropriate downstream retail market or markets, is more complex than for the upstream market since it is possible that the downstream market may be effectively segmented either on the basis on end-user location or customer type. … Furthermore, in downstream retail markets, it may be necessary to examine competitive alternatives that are available to different classes of users. The competitive alternatives available to large commercial, small commercial, and residential customers may be systematically different.* (Ordover and Lehr 2001, p. 17)]

5.106 A systematic variation in available competitive alternatives across different customer types or end-user locations may result in such a discontinuity in substitution possibilities that a single supplier may supply the one product in a number of distinct geographic or customer markets, based on end-user location or customer type respectively. Whether the single supplier is supplying the one product into a single market or a number of distinct geographic or customer markets will depend on whether the supplier is able to price discriminate between different end-user locations or customer types respectively. Where the available competitive alternatives vary systematically across end-user locations and / or customer types, the area over which a SSNIP may be profitably imposed by a hypothetical monopolist will be determined by reference to end-user location and/or customer type, provided that the hypothetical monopolist is able to engage in price discrimination.

5.107 The purpose for which gas is acquired by different customers located along the route of the GGP determines the systematic variation in the possible competitive alternatives across different end-user locations and customer types. In order to test the proposition that distinct geographic and customer downstream markets exist, the Council proposes to consider the technical and economic competitive alternatives available to each of:

(a) mining ventures located in the area in the vicinity of Kalgoorlie connected to the SWIS;

(b) AlintaGas' small commercial and residential customers in the Kalgoorlie-Boulder area; and

(c) remotely located mining ventures within reasonable proximity to the GGP.

5.108 If a technical alternative available to one of the user groups set out above does not constitute a close substitute for gas for that user group, that technical alternative clearly will not constitute a close substitute in a more broadly defined downstream market or markets. For a technical alternative for a user group set out above to be a close substitute for gas for that user group, it must be an economic, as well as technical, alternative. The question to be determined is whether substitution towards that alternative would occur in response to a relative increase in the delivered price of gas to a significant extent by users in that group.

Is electricity transmitted by the Muja-Kalgoorlie transmission line a competitive alternative for mining ventures located in the area in the vicinity of Kalgoorlie

5.109 GGT contended that electricity transmitted by the Muja-Kalgoorlie transmission line is a technical and economic alternative to gas in the vicinity of Kalgoorlie (GGT 2003, p. 24). GGT contended further that, as electricity transmitted by the line is an alternative to gas fired electricity, users of gas for electricity generation would substitute towards electricity transported by the Muja-Kalgoorlie transmission line if the suppliers of gas and/or the GGT priced at levels above cost:

> *There are close substitutes available for electricity generated from gas: electricity from the SWIS, and electricity from local generating plant fired on diesel or gas. … If suppliers of gas, and the GGT as supplier of gas transportation services, price at levels above cost, electricity generated from gas will not be competitive*

with electricity supplied from other sources. Suppliers of electricity generated from gas will substitute electricity generated from those other sources. (GGT 2003, p. 40)

5.110 GGT also emphasised the existence of substantial spare capacity on Western Power's Muja-Kalgoorlie transmission line, which would (if correct) facilitate substitution between gas and electricity transmitted by the Muja-Kalgoorlie transmission line for mining ventures located in the vicinity of Kalgoorlie (GGT 2003, p. 35).

5.111 Gas consumed by mining ventures in the vicinity of Kalgoorlie (e.g., WMC and Newmont) is used primarily for electricity generation. Accordingly, electricity generated in the south west of Western Australia and transmitted to the Kalgoorlie region by the Muja-Kalgoorlie transmission line is a technical substitute for gas in the area in the vicinity of Kalgoorlie connected to the line. However, this is not sufficient to establish that electricity transmitted to Kalgoorlie by the Muja-Kalgoorlie transmission line is a close substitute for, or a technical and economic alternative to, gas for mining ventures located in the vicinity of Kalgoorlie. For this to be the case, substitution towards electricity transmitted by the Muja-Kalgoorlie transmission line from gas by mining ventures in the vicinity of Kalgoorlie must be likely to occur in response to a SSNIP in the delivered price of gas for this customer group.

5.112 Whether substitution towards electricity transmitted to Kalgoorlie by the Kalgoorlie-Muja transmission line would occur to a significant extent in response to a relative increase in the delivered price of gas depends on the degree to which WMC and Newmont would be likely to reduce their consumption of gas in the vicinity of Kalgoorlie in response to a SSNIP in the delivered price of gas because the current users of gas fired electricity in the area, set out above, would be likely to substitute towards electricity transmitted by the Muja-Kalgoorlie transmission line to a significant extent

5.113 The Council has received and considered a large amount of information from interested and third parties regarding the nature of the supply arrangements between:

(a) WMC and Newmont, and Goldfields Power (GP) and Newmont Power respectively, for the supply of gas for electricity generation; and

(b) WMC, Newmont, GP and Newmont Power, and users of gas fired electricity (e.g. Kalgoorlie Consolidated Gold Mines

(KCGM) and St Ives Gold Mining Company (SIGMC)) for the supply of gas fired electricity.

5.114 The contractual arrangements between these parties are long term arrangements, generally expiring beyond 2010. The arrangements, with respect to the majority of gas consumption for electricity generation in the Kalgoorlie area, in effect establish vertical integration across gas sales, gas fired electricity generation and the relevant mining ventures' mining activities.

5.115 Therefore, the Council concludes that, as a result, any substitution towards electricity transmitted to Kalgoorlie by the Muja-Kalgoorlie transmission line would likely not be of sufficient significance to constrain a SSNIP in the delivered price of gas. In reaching this conclusion, the Council has considered the volumes of gas consumed in the generation of electricity supplied to mining operations and other parties under short term contractual arrangements[9] relative to the total volume of gas consumed for gas fired electricity generation in the vicinity of Kalgoorlie.

5.116 In addition to long term contractual arrangements, the capital costs that mining ventures in the vicinity of Kalgoorlie may have to incur if they were to switch to electricity transmitted via the Muja-Kalgoorlie transmission line in response to increases in the price of gas may make switching uneconomic. For example, KCGM advised that additional capital would be incurred on switching to electricity transmitted via the Muja-Kalgoorlie line in constructing a transmission line of sufficient capacity between KCGM's Fimiston Plant and the Muja-Kalgoorlie line.

5.117 Regarding the extent of spare capacity on the Muja-Kalgoorlie transmission line, the evidence before the Council suggests that the line has insufficient spare capacity to make it feasible for mining ventures in the vicinity of Kalgoorlie to divert towards electricity transmitted by the Muja-Kalgoorlie line to the extent required to defeat a SSNIP in the delivered price of gas. In addition, the Council considers that significant substitution towards electricity transmitted by this line as a result of an increase in the price of gas fired electricity would not be economic due to the significant transmission losses that would result.

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9 The Council has assumed that contractual arrangements for the supply of gas fired electricity are short term arrangements, where the Council has not been provided with information to the contrary.

5.118 The spare capacity of the Muja-Kalgoorlie transmission line has been addressed in detail by Newmont (Newmont, pp. 50-51) and Western Power. Western Power has confirmed Newmont's estimate of the spare capacity on the Muja-Kalgoorlie transmission line of 10-20 MW, compared with the 140 MW estimated by GGT. Western Power has advised the Council that a technical transfer limit of 75MW exists on the Muja-Kalgoorlie line. The nature of this 75MW transfer limit is such that it constrains the total load in Kalgoorlie serviced by the SWIS, whether by electricity transmitted by the Muja-Kalgoorlie transmission line or by gas fired generators in Kalgoorlie connected to the SWIS. Currently the maximum transfer level on the Muja-Kalgoorlie transmission line is approximately 60MW, leaving approximately 15 MW of spare capacity to supply additional load in Kalgoorlie. Western Power confirmed that the transfer limit on the Muja-Kalgoorlie transmission line is required to ensure the maintenance of system stability.

5.119 The Council has had regard to GGT's submissions, in its response to the Draft Recommendation (at pp.12-13), in relation to the capacity of the Muja-Kalgoorlie transmission line and the potential for its enhancement. Nonetheless, based on the information available to the Council, the Council is satisfied that the spare capacity on the Muja-Kalgoorlie transmission line available to supply additional loads in Kalgoorlie is approximately 15 MW. The Council recognises that this technical transfer limit does not prevent substitution in Kalgoorlie between electricity supplied by Western Power and electricity supplied by Kalgoorlie generators, where that substitution does not result in an increase in the load in Kalgoorlie serviced by that part of the SWIS located in the vicinity of Kalgoorlie (i.e. where that substitution does not either result in additional transfer flows on the Muja-Kalgoorlie transmission line or result in the injection of additional electricity to the SWIS by gas fired generators in Kalgoorlie).

5.120 Further, the Council is unaware of any plans by Western Power for expansion of the capacity of the Muja-Kalgoorlie transmission lines and GGT's submissions provide no specifics of any such plan, being instead limited to an assertion that such an expansion is possible based on 'GGT's commercial experience'.

5.121 As discussed in greater detail at paragraphs 5.175 to 5.179 below, having regard to the submissions from Newmont and WMC in response to the Council's Draft Recommendation, it would appear that the majority of gas fired electricity generated by SCE and GP

and supplied to third parties by SCE, GP, Newmont Power and/or WMC is supplied via private transmission lines, though some users in the Kalgoorlie region are supplied by these entities via that part of the SWIS located in Kalgoorlie. Accordingly, substitution by third parties from gas fired electricity currently supplied through private lines to electricity supplied by Western Power via the Muja-Kalgoorlie transmission line in response to a SSNIP in the price of delivered gas will likely result in an increase in the load in Kalgoorlie serviced by the Muja-Kalgoorlie transmission line.

5.122 As a result, the transfer limit on the Muja-Kalgoorlie transmission line limits substitution by third parties currently supplied with gas fired electricity generated by SCE and GP towards electricity transmitted via the Muja-Kalgoorlie line in response to a price increase in the delivered price of gas and thus the cost of gas fired electricity generated by SCE and GP. The Council concludes that the spare capacity available on the line is likely to be insufficient to facilitate substitution to the extent required to defeat a SSNIP in the delivered price of gas, particularly when regard is also had to the factors limiting substitution discussed above.

5.123 The Council understands from discussions with interested parties that the current cost of gas fired electricity generated by SCE or GP is similar to, or possibly greater than, the price of electricity transmitted by the Muja-Kalgoorlie transmission line and supplied by Western Power. Mining ventures in the vicinity of Kalgoorlie acquire gas fired electricity despite the higher cost relative to electricity transmitted by the Muja-Kalgoorlie line. This supports the Council's conclusion that the contractual arrangements and the technical limit on the Muja-Kalgoorlie transmission line discussed above prevent substitution by mining ventures located in the vicinity of Kalgoorlie towards electricity transmitted by that line in response to price incentives.

5.124 For the reasons set out above, the Council concludes that electricity transmitted by the Muja-Kalgoorlie transmission line is not a close substitute for, or economic alternative to, the supply of gas for mining ventures located in the area in the vicinity of Kalgoorlie connected to the SWIS.

5.125 At least in one case, a mining venture in the vicinity of Kalgoorlie has advised that it uses LPG, rather than gas, for processing applications. However, the Council does not consider gas and LPG to be close substitutes for mining ventures in the vicinity of Kalgoorlie as:

(a) the capital costs associated with switching to the use of gas for processing applications make this uneconomic for small changes in the price of LPG; and

(b) the use of gas for processing applications by customers of this type in the vicinity of Kalgoorlie is small relative to total gas consumption by customers of this type. Accordingly, any substitution between LPG and gas in response to relative price changes would be marginal.

Is LPG a competitive alternative for AlintaGas' customers in the Kalgoorlie-Boulder area?

5.126 AlintaGas reticulates and sells natural gas within the Kalgoorlie-Boulder area to commercial and residential customers and has a contracted gas supply of approximately 0.5 TJ/d for this purpose. Competition to reticulated gas is provided by LPG, rather than electricity. The Ventnor Report notes that:

> *The commercial and residential gas market in the Goldfields, including Kalgoorlie / Boulder, is also supplied - in bottles or in bulk - by a number of LPG suppliers, including Wesfarmers Kleenheat, Origin Energy and BOC. As previously indicated, the competitiveness of LPG is demonstrated by the fact that a number of large energy users in Kalgoorlie (eg. Kalgoorlie Regional Hospital) have not converted to natural gas. Furthermore, Wesfarmers Kleenheat provides an LPG distribution system in the town of Leinster, which is in close proximity to the GGP. … There is a strong and competitive market for LPG (in bulk or bottled form), which provides an effective alternative to natural gas.* (GGT 2003, Appendix 2, p. 21)

5.127 The question arises as to whether LPG is a close substitute for, or economic alternative to, gas in the Kalgoorlie-Boulder area. Whether substitution towards LPG would occur to a significant extent in response to a relative increase in the delivered price of gas depends on the degree to which AlintaGas would reduce its gas consumption because its customers would substitute towards LPG due to the resultant increase in retail gas prices.

5.128 The Council is satisfied that LPG is a technical alternative to gas for domestic use. However, LPG and gas must also be economic alternatives to be close substitutes for residential and commercial customers in Kalgoorlie. That is, AlintaGas' residential and commercial customers must be likely to substitute towards LPG to

a significant extent in response to a relative increase in the delivered price of gas.

5.129 Historically LPG was used by residential and commercial customers located in the Kalgoorlie-Boulder area. In 1997, AlintaGas commenced reticulation of natural gas within the Kalgoorlie-Boulder area and since that time a large number of customers have converted to gas. However, a significant number of customers continue to use LPG. The Council has been informed in discussions with interested parties that despite the initial conversion costs associated with switching from LPG to gas, for example the cost of converting household appliances such as heaters, hot water units and cookers, gas would appear to be significantly cheaper in the long run than LPG.

5.130 AlintaGas' gas prices for Kalgoorlie residential customers, effective 1 July 2003 (inclusive of GST) are as follows:

Kalgoorlie residential customers	
Supply charge	22.48 cents per day
Energy charge	6.25 cents per unit
Kalgoorlie business customers	
Supply charge	22.48 cents per day
Energy charge	5.56 cents per unit

Source: AlintaGas website at www.alintagas.com.au

5.131 Kleenheat has provided the Council with confidential information on its average prices. The Council considers that a residential customer consuming gas in Kalgoorlie is very unlikely to switch to LPG in the event of a 5 per cent increase in the price of gas imposed by AlintaGas, even disregarding the costs associated with switching from gas to LPG. This is because, following a 5 per cent increase in the price of gas, gas would still remain significantly cheaper than LPG for a Kalgoorlie residential customer.

5.132 Similarly, a comparison of the cost of gas and LPG for commercial customers in Kalgoorlie discloses that commercial customers using gas are very unlikely to switch to LPG in the event of a 5 per cent increase in the price of gas supplied by AlintaGas.

5.133 The Council understands from discussions with interested parties that, to the extent that LPG is used in the Kalgoorlie-Boulder area

by residential customers and commercial customers using LPG for domestic purposes, this is likely the result of the historical usage of LPG in that area combined with inelasticity of demand for LPG . It has been suggested to the Council that a number of households in the Kalgoorlie-Boulder area continue to use LPG despite the significantly lower cost of gas as there is a large transient population in Kalgoorlie, made up of mining company employees, and often this portion of the population is indifferent to fuel prices as accommodation and expenses are paid for by the employer. The low absolute cost of fuel, whether gas or LPG, is also said to contribute to demand inelasticity for LPG. For large commercial customers in Kalgoorlie that use LPG for commercial purposes, the costs of switching may be significantly greater than for residential or small commercial customers, again giving rise to inelasticity of demand for LPG.

5.134 Based on this information, and information regarding LPG and natural gas prices provided to the Council on a confidential basis, the Council concludes that LPG is not a close substitute for, or economic alternative to, gas for AlintaGas' residential and commercial customers in the Kalgoorlie-Boulder area.

Is diesel a competitive alternative for remote mining ventures?

5.135 GGT argued that, in addition to electricity transmitted by the Muja-Kalgoorlie transmission line, diesel competes directly with gas for the remote stand alone generation of electricity and that the close substitution between diesel and gas for this purpose has the effect that, if gas suppliers or GGT priced at levels above cost, substitution towards diesel-fired generation would occur (GGT 2003, pp. 24 and 40).GGT contended that diesel is a substitute energy source to gas for electricity generation at remote locations along the route of the GGP because the significantly higher cost of diesel-generated electricity is offset by the higher capital costs associated with gas-fired generation, particularly when combined with the potential for short project lives (GGT 2003, Appendix 2, pp. 25 and 41). The Ventnor Report noted the significant price differential between delivered gas and diesel but contended that competition nonetheless exists between gas and diesel as energy for remote electricity generation for similar reasons (GGT 2003, Appendix 2, p. 36).

5.136 The Ventnor Report set out the principal mining and processing projects it understands to be within reasonable proximity to the

GGP and concluded that a significant number of remote ventures within reasonable proximity to the GGP continue to use diesel fired generation. The report notes that there are likely to be an additional number of smaller projects within the GGP corridor which would all be supplied by stand-alone diesel stations [GGT 2003 Appendix 2, p. 36].

5.137 GGT points to switching between diesel and gas fired electricity generation on the commencement of operation of the GGP and to the election by recent mining projects to use diesel rather than gas as evidence of substitution between diesel and gas as an energy source for electricity generation. The application identifies a number of 'recent' remote ventures that have elected not to connect to the GGP, instead using diesel fired electricity generation (GGT 2003, p. 25).

5.138 WMC contends that the switching observed between diesel and gas for remote electricity generation is, in essence, an example of the cellophane fallacy, a concept in economics that had its source in the United States Supreme Court decision of *US v El Du Pont de Nemours & Co* (1956) 351 US 377. The cellophane fallacy indicates that analysis of substitution possibilities at prevailing prices may define a market too broadly where a market participant is currently exercising market power in that market. In order to be in the same product market, two substitute products must be competitive alternatives if both those products were priced at competitive levels, i.e. at prices reflecting marginal cost. In the presence of market power, however, prevailing prices reflect the monopolist's profit maximising exercise of market power. Failure to recognise that a monopolist always prices where demand is elastic to maximise prices, with the result that it will be more likely that there will be identifiable substitutes at prevailing prices which reflect the exercise of market power, is known as the cellophane fallacy.

5.139 Church and Ware described the care required in applying SSNIP analysis to define markets for the purpose of assessing the presence or absence of market power (as is the case in defining markets for the assessment of criterion (a)) as follows:

> *The use of the hypothetical monopolist test must be applied with care in monopolization cases. … [A] monopolization case requires demonstrating that the firm has attained market power. … In the application of the hypothetical monopolist test in a monopolization case, the base price with which to determine the*

ability of the monopolist to impose an SSNIP is not the prevailing price, but the competitive price - marginal cost.

At the prevailing price we would not expect the monopolist to profitably impose an SSNIP for its existing product. If it were profitable, the monopolist would already have done so! Prevailing prices already reflect the monopolist's profit-maximising exercise of market power - if she has any. A monopolist will always raise price until demand is elastic, thereby making it more likely that there are, as the Supreme Court found in Cellophane*, products "that have reasonable interchangeability for the purposes for which they are produced - price, use and qualities considered". Similarly, in the most elastic region of the demand curve, there are more likely to be identifiable substitutes with significant cross price elasticities. As Posner notes in commenting on* Cellophane *(1976, p. 128):*

> *Reasonable interchangeability at the current price but not at a competitive price level, far from demonstrating the absence of monopoly power, might well be a symptom of that power; this elementary point was completely overlooked by the court.* (Church and Ware 2000, p. 617)

5.140 According to WMC:

> *… there is a market for electricity which is used in the mines at the various locations along the route of the GGP. The choice as to whether the electricity is gas or diesel generated depends on a range of factors including price. At the current prices for delivered gas, switching between gas and diesel fired generation is observed. The conclusion which GGT seeks to draw from that is that there is such competition between diesel and gas that coverage would not promote competition. This competition assumes that delivered gas prices are currently set at a competitive level. For the reasons which are detailed in Dr Williams' report, this is not a safe assumption. Indeed it is one of the key issues being examined in the Application. What one is observing in substitution between gas and diesel is diesel capping the price for delivered gas. However, the material in the Application, suggests, and the report of Dr Williams shows, that if there was a reduction in the price of delivered gas, gas fired electricity is likely to displace diesel fired electricity to a greater extent than currently occurs. In other words, competition in the market for electricity generation would be promoted. The growth forecasts of APL which assume switching of non-gas generated electricity to gas generated electricity at a level of 17TJ/d is only likely if there is pricing of transmission services at efficient levels.* (WMC Submission 1, p. 38)

5.141 The Council accepts that evidence of switching between gas fired and diesel fired electricity generation at prevailing prices may be consistent with either monopoly pricing by GGT in a market for gas for electricity generation or substitution between diesel and gas in a market for energy. However, the Council does not consider it necessary to definitively resolve the issue of whether prevailing prices are competitive or monopoly prices, at this stage, in order to reach a conclusion on substitution possibilities between diesel and gas as the Council considers that close substitution between diesel and gas for remote electricity generation does not exist at prevailing prices.

5.142 Switching from diesel-fired generation to gas-fired generation on the commencement of operation of the GGP does not constitute evidence of current substitution possibilities between diesel and gas as an energy source. Rather, such switching represents a change in substitution possibilities in response to the commencement of the GGP. Changes in market conditions, such as the commencement of operation of the GGP, may change market boundaries and / or create new markets. Current market boundaries fall to be determined by reference to the current potential for substitution between diesel and gas as an energy source. The majority of the projects identified by GGT and the Ventnor Report were in existence prior to the construction of the GGP, and therefore the switching from diesel to gas-fired generation represents a response to the introduction of new technology rather than evidence of current substitution possibilities between diesel and gas.

5.143 Evidence that a remote mining venture may elect at the commencement of its operations to use either diesel or gas for the purposes of electricity generation does not necessarily constitute evidence of substitution between diesel and gas in response to relative prices changes. On project commencement, a mining venture determines which of diesel and gas fired electricity generation is more economic, having regard to a number of factors (such as distance from the GGP and the relative cost of diesel and gas fired generating plant), of which the relative prices of diesel and gas is only one. Where a venture determines that gas fired generation is more economic than diesel fired generation, it is not necessarily the case that diesel fired generation would become more economic than gas following an increase in the relative price of delivered gas (including the price of transmission on the GGP).

5.144 Without more information on the sensitivity of remote mining ventures' election to use diesel or gas on the commencement of a project, the fact that some mining ventures elect to use diesel and some elect to use gas does not establish the existence of close substitution between gas and diesel. Such additional information has, however, been provided (sometimes on a confidential basis) by a large proportion of the remotely located mining ventures. This information suggests that the ventures would not substitute between gas and diesel-fired generation in response to an increase in the relative price of delivered gas, either on project commencement or at a later time.

5.145 For two products to be competitive alternatives what is required is *close* substitution between them. That is, substitution between diesel and gas for remote electricity generation must be likely to occur to a significant extent in response to a SSNIP in the delivered price of gas such that a SSNIP is unprofitable. The occurrence of substitution at the margin will not suffice to put gas and diesel in the same market.

5.146 The fact that factors other than price and geographic location may dictate whether switching between diesel and gas for electricity generation after project commencement will occur (for example, the size or life of the mining project and / or the volatility of diesel prices) is not evidence of close substitution between diesel and gas as energy sources. Quite the contrary. Such factors may prevent small projects from diverting from gas to diesel in the event of a SSNIP in the price of delivered gas. In other words, such factors may preclude the existence of close substitution between diesel and gas.

5.147 To determine whether gas would be replaced to a significant extent in response to a SSNIP in its delivered price, making that price increase uneconomic, it is necessary to consider in greater detail the economics of the decision for a mining project between diesel and gas fired electricity generation. As discussed in the Frontier Economics Report, commissioned by WMC, the cost of power generated by diesel and the cost of power generated by gas must be compared by a venture in determining on gas or diesel fired electricity generation. The four categories of costs associated with gas fired generation are:

(a) the cost of gas from the producers;

(b) the cost of transportation via the GGP;

(c) the cost of building and maintaining any dedicated lateral pipeline; and

(d) the cost of building and operating the electricity generator that converts the gas into electricity. (WMC Submission 1, Annexure 1, p. 6)

5.148 In the event that, having regard to these factors, the cost differential for mining ventures between diesel and gas fired electricity generation is significantly large, then gas and diesel will not be in the same market. Projects will not substitute towards diesel in response to a relative increase in the delivered price of gas.

5.149 Further, in assessing the current potential for substitution towards diesel fired generation in the event of a SSNIP in the delivered price of gas, the sunk costs incurred by mining projects in respect of the construction of a dedicated lateral pipeline and gas fired generation plant must be disregarded. This concept is expressed by the Frontier Economics Report, as follows:

> *The second complication is that the costs that were relevant to the calculations of the miners prior to the construction of the GGP are not the same costs that are relevant to any decision they might make today between alternative sources of power and the GGP.* (WMC Submission 1, Annexure 1, p. 9)

5.150 In addition, where gas is required for the production of steam or for processing, this will also dictate that the cost of building and maintaining a lateral pipeline must be disregarded in the election between gas fired and diesel fired electricity generation by a mining venture. This is because the mining venture would incur the cost of building and maintaining a lateral pipeline, and would require gas, regardless of whether it used gas fired or diesel fired electricity generation.

5.151 According to GGT's application, the cost differential between gas fired and diesel fired electricity is sizeable, at least for large remote electricity consumers. GGT stated:

> *[T]he dominant existing downstream customer on the GGP has stated that the energy costs of its Western Australian operations in 2001 were 5% below 1995 energy costs in nominal terms, which it equated to a 20% reduction in real terms. This was quoted as amounting to savings of more than $25 million p.a., while also avoiding exposure to diesel price shocks*. (GGT 2003, p. 48)

(a) The Council has made enquiries in relation to the potential for substitution between diesel and gas for remote mining ventures along the route of the GGP. From responses received the Council understands that

(b) no mining project currently using gas would substitute towards diesel in response to a SSNIP in the price of gas (including the price of transmission along the GGP).

5.152 Interested parties discussed the relevance of the factors set out above to the economics of electricity generation at remote mining ventures in their submissions to the Council. OMG Cawse stated in its submission:

> *(a) OMGC considers that the GGP is not severely constrained (if it is constrained at all) by direct competition with other energy sources. Based on detailed investigations that OMGC has previously conducted, electricity, diesel and LPG are not viable substitutes for gas at the Cawse Operation. Furthermore, the costs of reconfiguring the Cawse Operation to use alternative energy sources are prohibitive.*
>
> *(b) In relation to electricity, the Cawse Operation is a remote site that is located far from the South West Interconnected System ("SWIS"). In any event, electricity satisfies only part of OMGC's energy needs, as the Cawse Operation also requires large quantities of high-pressure (HP) steam and, therefore, gas for co-generation activities. OMGC also has an existing agreement to supply gas to a third party for use at an on-site power station.*
>
> *(c) In relation to LPG, OMGC has previously undertaken work which, establishes that LPG is not an economically viable substitute for natural gas.*
>
> *(d) OMGC does not consider diesel to be an option because it is comparatively inefficient for generating HP steam and because of the investment in, and contractual obligations associated with, the on-site co-generation facility*. (OMGC, p. 3)

5.153 Newmont, in turn, stated in its submission:

> *Of those mining companies along the route of the GGP that have converted to gas, some have retained their diesel generators and storage, others have not. However, it is incorrect to conclude from this that the former could and*

would revert to diesel if delivered gas prices increased by a relatively small amount.

In determining whether and to what extent to respond to an increase in the price of delivered gas, any additional capital and operating expenditure, as well as the life of the mine, must be taken into account. In relation to the power plant, purpose-built diesel generators cannot operate on gas without expensive conversion and this is not always possible. The greater the capital cost and the shorter the expected life of the mine, the less likely it is to switch. Other factors also influence willingness to switch. These include differences in price volatility (diesel prices are assumed to be more volatile and to result in additional costs for hedging price and foreign exchange risks) and any general shortage of capital for infrastructure.

Given that the length of life of many mining projects in the relevant region is only around 5 years, once a mining company has converted to gas supplied from the GGP, it is unlikely that a small to medium increase in transmission costs will cause them to switch to diesel. (Newmont, paragraphs 68-71)

5.154 The Council concludes that, due to the range of factors discussed above, it is highly unlikely that the economics of selecting between diesel and gas for use in electricity generation at remote mining ventures will be effected by a SSNIP in the relative price of gas. Generally, the economics of electricity generation at a remote mining venture dictate that one of diesel or gas is substantially more cost effective for use in electricity generation for that particular mining venture.

5.155 For example, Anaconda estimates that the cost of gas fired generation of electricity for use at its Murrin Murrin operations is approximately 1.6 cents per kWh (excluding maintenance and capital costs), while the cost of diesel fired electricity would be approximately 8 to 12 cents per kWh.

5.156 As such, the Council concludes that a SSNIP in the delivered price of gas generally will not make it economic to substitute between gas and diesel as a fuel source for electricity generation, either on project commencement or during the operation of a project. For this reason, the Council concludes that diesel is not a close substitute for, or competitive alternative to, gas for remote mining ventures.

5.157 In summary, the Council concludes that:

(a) electricity transmitted by the Muja-Kalgoorlie transmission line is not a close substitute for, or an economic alternative to, gas for mining ventures located in the area in the vicinity of Kalgoorlie connected to the SWIS;

(b) LPG is not a close substitute for, or an economic alternative to, gas for AlintaGas' residential and small commercial customers in the Kalgoorlie-Boulder area; and

(c) diesel is not a close substitute for, or an economic alternative to, remotely located mining ventures.

5.158 Thus, there are no competitive alternatives to gas available to:

(a) mining ventures located in the area in the vicinity of Kalgoorlie connected to the SWIS;

(b) AlintaGas' residential and small commercial customers in the Kalgoorlie-Boulder area; and

(c) remotely located mining ventures.

5.159 For this reason, the Council concludes that there is not a systematic variation in available competitive alternatives to gas across the location of end-users on the route of the GGP and customer types. Accordingly, the Council considers that it is not appropriate to define distinct downstream geographic or customer markets by reference to end-user locations or customer types respectively. For the same reasons, the Council also concludes that it is not appropriate to define sub-markets or market segments by reference to end-user locations or customer types, as GGT does in its application.

5.160 The Council concludes that the product dimension of the downstream market is gas. That is, the downstream product market is a market for gas sales.

Functional dimension – distinct functional markets for gas sales?

5.161 In the preceding analysis the Council found that there are no competitive alternatives to gas available to mining ventures located in the area in the vicinity of Kalgoorlie connected to the SWIS, AlintaGas' residential and small commercial customers in the Kalgoorlie-Boulder area and remotely located mining ventures. The Council therefore concludes that the downstream product market is

a market for gas sales. The Council observes that the supply of gas to mining ventures for both the purpose of electricity generation and for use in processing gas applications occurs in this downstream market.

5.162 The Council considers that two distinct downstream functional markets exist for gas sales. While the majority of downstream gas users acquire gas for their own use in electricity generation, AlintaGas acquires gas for the purpose of re-supply to its commercial and residential customers. The Council distinguishes between the functional market in which AlintaGas and mining ventures acquire gas and the functional market in which AlintaGas re-supplies gas to its retail customers.

5.163 The Council acknowledges that AlintaGas and mining ventures located downstream from the GGP acquire gas in the upstream market for gas production and sales. Further, they likely acquire gas at the northern end of the GGP in view of the fact that they, not Apache or any other gas producer, are shippers with contracted capacity. Nonetheless, the Council considers there is a downstream market for gas sales that is functionally distinct from the upstream market for gas production and sales in the Varanus Island hub, as a number of the parties who utilise gas from the GGP are not listed as shippers on the GGP. This means they must acquire gas in the downstream market from another party who does have a shipping contract.

Geographic dimension

5.164 With respect to the geographic boundaries of the market for gas sales, the Council accepts that these are determined by reference to proximity to the GGP. It is necessary to be sufficiently proximate to the GGP for the construction and maintenance of a lateral pipeline to be economic.

5.165 The Council notes the comments made by Ventnor and WMC regarding whether the purported market for electricity at remote locations is one market aggregated across all remote ventures located in proximity to the GGP or whether distinct geographic markets exist in respect of each remote venture (GGT 2003, Appendix 2, pp. 26-27; WMC Submission 1, p. 38). The Council considers that these comments are not of relevance in defining the geographic boundaries of the gas sales market. The potential for gas suppliers to supply any remote projects in the proximity of the

GGP with the necessary lateral pipeline, together with the fact that there is no systematic variation in the available competitive alternatives across different remote mining ventures, suffices to ensure that all remote sites in the vicinity of the GGP are supplied with gas in the same gas sales market. The Council notes that, in any event, the comments made by Ventnor in support of distinct geographic markets for electricity for remote ventures are not made in respect of the market for energy for remote electricity generation defined by Ventnor (GGT 2003, Appendix 2, p. 33).

5.166 The geographic boundaries of the retail gas sales market are defined by the limits of the reticulation network through which AlintaGas distributes gas to its retail customers. The geographic parameter of the retail gas sales market is the Kalgoorlie-Boulder area.

Temporal dimension

5.167 The Council has considered the principles set out in paragraphs 5.90 and 5.91 in respect of the temporal dimension of market definition, in particular in having regard to the long term supply arrangements between WMC, Newmont, SCE, GP, Newmont Power and users of gas fired electricity in the Kalgoorlie area in assessing whether electricity transmitted via the Muja-Kalgoorlie transmission line is a substitute for gas for mining ventures located in the vicinity of Kalgoorlie.

5.168 In view of the likely expiry date of these contractual arrangements, the Council concludes that the relevant downstream markets include:

(a) a gas sales market at locations within reasonable proximity to the GGP, in which mining ventures and AlintaGas acquire gas; and

(b) a retail gas sales market in the Kalgoorlie-Boulder area, in which AlintaGas retails gas to residential and small commercial customers.

Market for electricity connected to the SWIS

Product dimension

5.169 In addition to the downstream gas sales markets defined above, the Council considers that there is a distinct downstream product market in respect of electricity sales of relevance to the criterion (a) assessment.

Functional dimension

5.170 The Council has identified a relevant downstream market for electricity sales. There is a question, however, whether further functional market delineations should be made, such as distinction between wholesale and retail electricity sales. While there is some evidence to suggest that wholesale supply and retail supply are economically separable, it is more difficult to determine whether they are economically distinct.

5.171 The Council considers that whether there is a further delineation of separate retail and wholesale markets is not material to any issues arising in this application.

Geographic dimension

5.172 The geographic dimension of this market is determined by reference to the area in the vicinity of Kalgoorlie connected to the SWIS. The SWIS determines the boundaries of the area over which Western Power and its rivals currently supply, or could supply in response to price incentives, electricity to end-users.

5.173 SCE's Kalgoorlie and Kambalda power stations and GP's Parkeston power station are connected to the SWIS and, accordingly, SCE, WMC, GP and Newmont Power are all technically capable of supplying gas fired electricity generated at these power stations to end-users located in the area in the vicinity of Kalgoorlie connected to the SWIS. Nonetheless, current competition between Western Power (supplying electricity via the Muja-Kalgoorlie transmission line) and these suppliers of gas fired electricity would appear to be limited.

5.174 As discussed at paragraph 5.121 these entities do not, to any significant extent, currently supply gas fired electricity to end-users

technically and economically able to consume electricity transmitted by the SWIS.

5.175 In the Draft Recommendation, the Council stated that based on the information available it appeared that of the operations currently supplied with gas fired electricity generated by SCE or GP, only WMC's Kwinana nickel refinery is supplied with gas fired electricity via that part of the SWIS located in Kalgoorlie. Further, in the Draft Recommendation the Council concluded that electricity generated by SCE and GP at the Kalgoorlie, Kambalda and Parkeston power stations is transmitted to the remaining consumers of gas fired electricity in the vicinity of Kalgoorlie via private transmission lines. For example, KCGM has advised the Council that it is not currently able to consume electricity transmitted by the SWIS (i.e. that part of the SWIS located in Kalgoorlie), as doing so would require the construction of additional transmission infrastructure at a considerable capital cost.

5.176 Both Newmont and WMC contended in their submissions on the Draft Recommendation that these factual findings made by the Council were, to some degree, incorrect. Newmont states in its submission on the Draft Recommendation of 16 October 2003 that there:

> *…appears to be a slight error in paragraph 5.139 of the Draft Recommendation. Paragraph 5.139 makes the observation that, with the exception of that directed to WMC's Kwinana Nickel Refinery, all other gas fired electricity generated in Kalgoorlie is supplied via private transmission lines. In fact approximately 30% of Goldfields Power's current generation is delivered to consumers via the SWIS. These consumers are currently all located in the vicinity of Kalgoorlie, but have previously included a Perth based consumer. Our client understands that SCE also delivers electricity via the SWIS to consumers other than the Kwinana Nickel Refinery.*

5.177 Similarly, WMC states in its submission in response to the Draft Recommendation (at p14):

> *Paragraphs 5.139 to 5.141 identify Southern Cross Energy (**"SCE"**), WMC, Goldfields Power (**"GP"**) and Newmont Power as being "*technically capable of supplying gas via electricity to end users in the vicinity of Kalgoorlie*". In those paragraphs the following statement also appears, "*electricity generated by SCE or GP at the Kalgoorlie, Kambalda and Parkeston power stations is transmitted to the remaining consumers of gas fired electricity in the vicinity of Kalgoorlie via private

transmission lines". *This is not factually accurate. WMC supplies electricity to third parties which is wheeled via the SWIS. Accordingly, WMC is currently a participant in this market. This is referred to in WMC's first submission of 15 May 2003 at p48.*

5.178 WMC does not provide any indication, however, of the proportion of its supply to third parties that occurs via that part of the SWIS located in Kalgoorlie, rather than via private transmission lines. In addition, while WMC's first submission of 15 May 2003 (at p48) contends that the supply of gas fired electricity imposes a competitive discipline on the supply of electricity by Western Power through the SWIS, it does not address the issue of the proportion of WMC's electricity transmitted via the SWIS, as compared to via private transmission lines.

5.179 The Council has considered these submissions by Newmont and WMC, together with the discussions with interested parties prior to the Draft Recommendation on the same factual issue. Having regard to these discussions with interested parties in relation to the extent of gas fired electricity generated by SCE and/or GP that is supplied to third parties in Kalgoorlie via the SWIS, and to Newmont's statement that only 30% of electricity generated by GP is supplied to Kalgoorlie customers via the SWIS, the Council remains of the view that the majority of gas fired electricity generated by SCE and GP is not supplied to Kalgoorlie customers via the SWIS, but is instead supplied via private transmission lines, and that the supply of electricity generated by SCE and GP to third parties in Kalgoorlie via the SWIS is small relative to the current maximum transfer level and the transfer limit of the Muja-Kalgoorlie transmission line.

5.180 Nonetheless, the Council accepts that SCE, WMC, GP and Newmont Power are connected to the SWIS and are all capable of supplying, and do supply, gas fired electricity to end users in the vicinity of Kalgoorlie. However, the Council does not accept GGT's contention (at p10 of its response to the Draft Recommendation) that the participation of gas fired electricity generators in Kalgoorlie in the market for electricity in the vicinity of Kalgoorlie connected to the SWIS suffices to conclude that this market is effectively competitive.

5.181 As noted above, the majority of supply of gas fired generation by these parties does not currently occur in the market for electricity in the area in the vicinity of Kalgoorlie connected to the SWIS.

Rather, these parties supply users in Kalgoorlie for whom substitution towards electricity transmission via the Muja-Kalgoorlie transmission line is not an option to any real degree. This is despite the fact that end-users in Kalgoorlie currently consuming electricity transmitted via the Muja-Kalgoorlie transmission line could technically substitute towards gas fired electricity generated by these entities (i.e. the technical transfer limit on the Muja-Kalgoorlie transmission line would not prevent substitution in this direction).

5.182 As discussed at paragraph 5.123, a number of interested parties have advised that the cost of gas fired electricity generated in the vicinity of Kalgoorlie exceeds the price of electricity supplied by Western Power via the Muja-Kalgoorlie transmission line. A question arises regarding the extent to which SCE, WMC, GP and Newmont Power are economically able to supply electricity to end-users in the vicinity of Kalgoorlie connected to the SWIS.

5.183 Thus, while SCE, WMC, GP and Newmont Power presently supply electricity to end-users in the vicinity of Kalgoorlie connected to the SWIS, the comments by interested parties with respect to relative pricing by these suppliers of gas fired electricity and by Western Power for electricity transmitted by the Muja-Kalgoorlie transmission line and the supply of the majority of gas fired electricity generation via private transmission lines to parties not connected to the SWIS suggests that competition between gas fired electricity and electricity transmitted by the Muja-Kalgoorlie transmission line by Western Power is limited.

5.184 Nonetheless, the Council considers that SCE, WMC, GP and Newmont Power are suppliers in the market for electricity in the area in the vicinity of Kalgoorlie in the vicinity of the SWIS.

Temporal dimension

5.185 The Council has considered the principles with respect to the temporal dimension of market definition discussed at paragraphs 5.90 and 5.91 in defining the boundaries of the downstream electricity sales market. The Council is not, however, aware of any changes in the foreseeable future that would alter substitution possibilities in demand or supply, relevant to the definition of the downstream electricity sales market.

5.186 Therefore, the Council concludes that the relevant downstream markets include an electricity sales market in the area in the vicinity of Kalgoorlie connected to the SWIS.

5.187 In so concluding, the Council has had regard to the following GGT submissions in response to the Draft Recommendation:

> *[T]he market for remote regional electricity produced from either diesel or gas is dismissed on the basis of failing the SSNIP test. The competition between LPG and natural gas is similarly dismissed.*
>
> *In its initial consideration of the market in the vicinity of Kalgoorlie in which electricity produced by gas fired regional generators competes with electricity supplied from the SWIS, the SSNIP test produces a similar negative result. However, in this case, rather than dismiss the market, the NCC has chosen to retain it for consideration as a theoretically structured downstream market in which the existing regional generators are to be considered as "potential suppliers". The NCC goes on to state that rather than considering:*
>
> > "…whether coverage would be likely to result in a promotion of competition in this downstream market, the Council will address the alternative scenario, namely that SCE, WMC, GP and Newmont Power are potential new entrants to the market."
>
> *No explanation is given as to why this market (which consumes approximately 40-45% of gas supplied via the GGP) should be retained for consideration as a relevant downstream market, when the remote area power generation market (which consumes approximately 50% of the gas supplied by the GGP) and the downstream gas versus LPG market, have been dismissed from subsequent consideration.*

5.188 There are three reasons why the Council proceeds to consider whether coverage would promote competition in the downstream market for electricity sales in the area in the vicinity of Kalgoorlie connected to the SWIS, while it does not proceed to consider whether coverage would promote competition in the market for the supply of LPG or diesel for remote electricity generation or related markets. These are as follows:

(a) There does not appear to be a market for electricity at remote locations downstream of the GGP, i.e. there are no transactions between buyers and sellers of electricity at these remote locations. By contrast, there would appear to be a market for electricity in the vicinity of Kalgoorlie

connected to the SWIS and suppliers of gas fired electricity generation would appear to be suppliers to this market;

(b) Gas is not an input in the production of LPG or diesel, and as such the market for the supply of LPG or diesel is not a vertically related dependent market. By contrast, the market for electricity sales in the vicinity of Kalgoorlie connected to the SWIS is a vertically related dependent market, gas being an input in electricity generation for supply to this market;

(c) As a result, the Council does not consider that there is any likelihood of coverage promoting competition in either the market for the supply of LPG or diesel for remote electricity generation. By contrast, the Council considers it necessary to assess whether coverage will result in a promotion of competition in the market for electricity sales in the vicinity of Kalgoorlie connected to the SWIS.

Other downstream markets

5.189 The Ventnor Report defines and considers the potential for a promotion of competition by coverage of the GGP, in a number of markets for the commodities produced by GGP shippers, namely:

(a) a market for iron ore - BHP Iron Ore's Newman operations produce iron ore;

(b) a market for nickel - WMC, Anaconda and OMG Cawse produce nickel; and

(c) a market for gold - KCGM, Barrick, Gold Fields Ltd's wholly owned subsidiaries AGMC and SIGMC, and Newmont produce gold. Both Newmont and Barrick are shippers, and KCGM and SIGMC are supplied with gas fired electricity by Newmont Power and WMC, respectively, which electricity was generated by GP and SCE, respectively. (GGT 2003, Appendix 2, pp. 38-50)

5.190 The Council considers that there is insufficient information to precisely define the dimensions of the markets in which Australia's iron ore, nickel and gold export industries compete. The Council accepts that inefficient transportation tariffs can adversely affect Australia's export industries that rely on gas as a production input and that coverage of the GGP may improve the competitiveness of

Australian firms such as BHP Iron Ore and WMC. However, it is not possible on the information currently available, to determine the significance of GGP shippers and other parties reliant on gas transmitted by the GGP on the levels of competition in the commodity markets for iron ore, nickel and gold. It is therefore not possible to determine on the current information whether coverage of the GGP would enhance the broader competitive environment in those commodity markets.

5.191 However, as the issue is not determinative of this application, the Council does not consider that it is necessary to precisely define the boundaries of the downstream commodity markets in which GGP shippers are participants or the participants in which rely on gas as a production input.

Conclusion on markets

5.192 The Council is satisfied that the dependent markets of relevance to its criterion (a) assessment are as follows:

(a) an upstream market for gas production and gas sales in the Varanus Island hub;

(b) a downstream gas sales market at locations within reasonable proximity to the GGP;

(c) a downstream retail gas sales market in the Kalgoorlie-Boulder area; and

(d) a downstream electricity sales market in the area in the vicinity of Kalgoorlie connected to the SWIS.

Promotion of competition

5.193 Criterion (a) requires consideration of whether regulated access under the National Gas Code would promote competition in a dependent market. The phrase 'access (or increased access) to the service' in criterion (a) refers to the right to negotiate access to a covered pipeline under the National Gas Access Code rather than access that may be available under voluntary commercial arrangements. The Council considers that it is important to clarify this at the outset, given the submissions made by GGT both in its application and in its subsequent submissions of 30 May 2003. The

application contends that criterion (a) is not satisfied, in part, because open and non-discriminatory third party access already exists under the State Agreement, which would continue to apply were coverage revoked (GGT 2003, pp. 29-30).

5.194 In the Duke EGP decision, the Tribunal considered an argument by Duke that criterion (a) is not satisfied unless access to the service is either unavailable or restricted. Duke contended that the question of whether access or increased access to the service would promote competition in other markets does not arise unless, as a matter of fact, access to the Eastern Gas Pipeline were either unavailable or restricted. The Tribunal rejected this argument in the following terms:

> *The object of the Code, and its structure, make it clear that criterion (a) does not have as its focus a factual question as to whether access to the pipeline services is available or restricted. Put in that way, the question would not take sufficient account of the terms on which access is offered. Rather, the question posed by criterion (a) is whether the creation of the right of access for which the Code provides would promote competition in another market.* (Duke EGP decision, paragraph 74)

5.195 Applying the Tribunal's conclusions to this application, it is whether coverage of the GGP will promote competition in another market, rather than whether coverage will increase access beyond the level that exists under the State Agreement, that will determine whether criterion (a) is satisfied. 'Promotion of competition' refers to improving the opportunities and environment for competition such that competitive outcomes are more likely to occur. In considering s44H(4)(a) of the TPA, on which criterion (a) of the National Gas Access Code is based, the Tribunal in the Sydney International Airport decision made the following observations on the promotion of competition test:

> *The Tribunal does not consider that the notion of "promoting" competition in s44H(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 s44H(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.* (Sydney International Airport decision, paragraph 106)

5.196 A number of interested parties have emphasised the significance of the GGP's construction to the development of upstream and downstream competition. For example, Anaconda contended that criterion (a) is satisfied in relation to the upstream market for gas production due to the historical significance of the GGP in promoting competition in that market (Anaconda, pp. 21-23). Anaconda also contended that the construction of the GGP was critical to the development of competition in downstream markets (Anaconda, p. 25).

5.197 In addition, GGT has emphasised to the Council the benefits to competition in the upstream and downstream markets that resulted from the construction of the GGP. In its response to the Draft Recommendation, GGT contends:

> *In its Draft Recommendation of the 8 September 2003, the NCC has discounted or marginalised virtually all matters of contextual relevance regarding the GGP. This is particularly so in regard to the various historical benefits, both economic and social, deriving from the State Agreement and the introduction via the GGP of has as an alternative to existing, less reliable and more expensive fuel and energy sources which previously monopolised their respective regional niches. (p. 3)*

5.198 The Council acknowledges that competition in the upstream and downstream markets has likely improved since the GGP commenced operation. However, as discussed in the Draft Recommendation, the question posed by criterion (a) is whether the opportunities and environment for competition in the upstream and downstream markets would be further enhanced if the GGP were covered under the National Gas Access Code? This is consistent with the approach taken by the Tribunal in considering whether criterion (a) was satisfied in respect of the EGP.

5.199 To the extent that existing market conditions are already effectively competitive, then the scope for an improved environment for competition may be slight. However, where the construction of a pipeline has fostered competition in a market but the level of that competition is something less than effective competition, it may that there is scope for improvements to the competitive environment as a result of coverage.

5.200 Minter Ellison, in its advice attached to the GGT submission in response to the Draft Recommendation, contends that:

(a) the Council does not explain the expression 'effective competition' (at p3);

(b) the Council interprets 'effective competition' as meaning a state of competition in which prices are not above 'forward looking, long run economic costs' and Minter Ellison understands that 'long run economic costs' 'refer to the costs which could be recovered (and hence the prices which could be charged) in a perfectly competitive market'; and

(c) the term 'effective competition' where used by the Council equates to the term 'perfect competition' - that is, the Council adopts 'a perfectly competitive model for the 'future with coverage' scenario'.

5.201 The Council considers the contentions of Minter Ellison in greater detail at paragraphs 5.304 to 5.310 below. However, the Council considers it desirable to comment briefly at this stage on the meaning of the economic term 'effective competition' and its distinction from the economic term 'perfect competition'.

5.202 'Effective competition' precludes the ability to exercise substantial and durable market power in a market, that is the ability to substantially and sustainably raise prices above proper economic costs. As such, in the presence of effective competition prices are driven towards proper economic costs, i.e. long run economic costs. Thus, effective competition can be distinguished from perfect competition, which as noted by Minter Ellison is a theoretical construct, in which prices are driven towards short run marginal costs (which prices would, in reality, be inadequate to ensure the continued financial viability of participants in an industry with substantial fixed costs).

5.203 Ordover and Lehr explain the distinction between the concepts of 'effective competition' and 'perfect competition' and their relationship to the existence of market power as follows:

> *In economics, market power is defined as the ability to profitably raise prices above marginal cost. Any firm - other than a firm operating in a perfectly competitive market - can have, in principle, some ability to raise price above marginal cost: all that is required is that the firm faces a downward-slopping [sic] demand curve. Indeed, under some cost conditions, pricing at marginal cost would ruin the firm and is thus a precondition for financial viability. Regulatory concerns arise only if the firm possesses significant and durable market power leading to prices that substantially*

deviate from proper economic costs and which generate persistent supracompetitive returns. When a firm possesses substantial and durable market power, it is often said to possess "monopoly power". …

The existence of effective competition precludes the ability profitably to exercise monopoly power, and therefore, a finding that effective competition exists in a market is usually taken to be equivalent to a finding that no firm in that market possesses substantial market power. In the presence of effective competition, prices are driven towards economic costs and resources are allocated efficiently.

In the real world - as opposed to the theoretical construct of perfect competition - most firms have some degree of market power (i.e., some degree of discretion over price). Indeed, generally firms

5.204 Accordingly, it is 'effective competition' and not 'perfect competition' that the Council uses as a benchmark for assessing whether:

(a) effective competition would exist in the dependent markets in the absence of coverage; or

(b) to the contrary, something less than effective competition would prevail in the absence of coverage and a service provider would possess substantial and durable market power, with the result that there is scope for improvements to the competitive environment as a result of coverage.

5.205 This is consistent with the Hilmer Report, in which the stated objective of access regulation was the promotion of effective competition in dependent markets:

> *In some markets the introduction of* ***effective competition*** *requires competitors to have access to facilities which exhibit natural monopoly characteristics, and hence cannot be duplicated economically…* (1993, p. 239)

5.206 The question is whether coverage would improve the competitive conditions in a dependent market, as compared with the conditions that are likely to prevail in that market without coverage (Sydney International Airport decision, paragraph 108). As stated by the Tribunal in the Duke EGP decision, this requires a comparison of competitive conditions 'with coverage' and competitive conditions 'without coverage':

> *"… the question … is whether the opportunities and environment for competition in market(s) upstream or downstream of the [pipeline] would be enhanced if the [pipeline] were to be covered in terms of the Code". … This question is assessed by a comparison of the future conditions and environment for competition with and without coverage. The Tribunal determined in the Sydney Airports decision - and affirmed in the Duke EGP decision - that the criterion (a) assessment requires a consideration of the future with and without coverage because access refers to the right to negotiate access to a covered service.* (Duke EGP decision, paragraph 75)

5.207 In the present instance, the "with coverage" scenario is the likely market conditions that would exist if access to the GGP was regulated by the Regulator under the National Gas Access Code, while the "without coverage" scenario is the likely market conditions absent coverage. As stated in the application, the State Agreement will continue to apply to GGP in both the future "with coverage" and the future "without coverage".

5.208 In applying the "with and without" test endorsed by the Tribunal in the Sydney International Airport decision and the Duke EGP decision, it is necessary to determine the extent to which the Council can rely on the currently prevailing competitive conditions as a guide to the future with or without coverage.

5.209 The GGP has been a covered pipeline since the commencement of the National Gas Access Code.[10] Nonetheless, the Council considers that currently prevailing conditions provide a guide to the future "without coverage".

5.210 While third parties currently have a statutory right under the National Gas Access Code to negotiate access to spare capacity in the GGP on terms and conditions (including a reference tariff) set out in an access arrangement approved by the Regulator, an access arrangement for the GGP has not yet been approved under the Code. The terms and conditions on which access to the GGP is provided will not be regulated terms and conditions until the GGP access arrangement is approved by the Regulator. To date, the Regulator has issued a draft decision on the GGP access arrangement.

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[10] The GGP is listed at Schedule A of the Code. Pipelines listed at Schedule A are automatically covered from the commencement of the Code.

5.211 Accordingly, current GGT terms and conditions of access and competitive conditions do not reflect regulated outcomes under the National Gas Access Code. They do, however, reflect outcomes under the State Agreement absent coverage — the current prevailing tariffs for use of the GGP are not regulated access tariffs under the National Gas Access Code and provide a guide to GGT's tariffs under the State Agreement absent coverage.

5.212 A consideration of whether coverage would promote competition in a dependent market has temporal elements.

5.213 It is not necessary to establish that more competitive outcomes will actually occur, or will occur within a particular period of time. Rather, what is required is an improvement in the environment for competition in a dependent market, compared with conditions absent coverage. This reflects that there may be a substantial lead time between a change in the competitive environment and the ability of new entrants to undertake investment. As Ordover and Lehr pointed out, the emergence of new entry may be a gradual process:

> *Because of other market frictions, entry may be slow in coming. Hence, criterion (a) cannot be taken to mean that coverage would rapidly induce entry relative to the no-coverage benchmark. Rather, we take the criterion to mean that coverage is justified if imposition substantially increases the overall competitive conditions in relevant market(s), including the likelihood of entry. Here, it is important to point out that the mere reduction in impediments to entry could stimulate competition among incumbent firms as the enhanced threat of entry forces the incumbents to act more competitively on all dimensions that matter to consumers (which includes price, conditions of sale, service, and so on).* (Ordover and Lehr 2001, p. 10)

5.214 The Council recognises, however, that a conclusion regarding whether coverage would improve the environment for competition in a dependent market may change over time as a result of future events and changes in market conditions. In particular, it is necessary to consider likely competitive conditions in dependent markets looking forward and exogenous events that may affect the competitive environment in the future.

5.215 The time horizon over which the Council considers changes of this type should be distinguished from the temporal dimension of market definition. The temporal dimension of market definition refers to the period over which current substitution possibilities

should be considered in the definition of market boundaries. By contrast, future events or a change in market conditions may result in changes in future substitution possibilities and thus market boundaries, and/or competitive conditions.

5.216 In the Duke EGP decision, the Tribunal concluded that whether coverage will promote competition critically depends on whether the service provider has *market power* that could be used to adversely affect competition in the dependent market(s):

> *Whether competition will be promoted by coverage is critically dependent on whether EGP has power in the market for gas transmission which could be used to adversely affect competition in the upstream or downstream markets. There is no simple formula or mechanism for determining whether a market participant will have sufficient power to hinder competition. What is required is consideration of industry and market structure followed by a judgment on their effects on the promotion of competition* (Duke EGP decision, paragraph 116).

5.217 In Australian trade practices law, 'market power' is defined as the ability to profitably and sustainably raise prices above proper economic costs, or to behave in a market in some other manner for a sustained period, without being constrained by current or potential competitors. In the Queensland Wire decision, the High Court said:

> *Market power can be defined as the ability of a firm to raise prices above the supply cost without rivals taking away customers in due time, supply cost being the minimum cost an efficient firm would incur in producing the product….* (Queensland Wire decision, p. 189)

5.218 In other words, the *Duke EGP Decision* establishes that whether coverage will promote competition critically depends on whether the dependent market(s) are effectively competitive in the absence of coverage.

5.219 The ability and incentive for the service provider to exercise market power to adversely affect competition in a dependent market is a necessary (although not sufficient) condition for coverage of the pipeline to promote competition. *Prima facie*, regulation of the terms and conditions of the provision of the service by the service provider in these circumstances is likely to promote competition.

5.220 However, the structure of the dependent market may, in limited circumstances, mean that access regulation would not be likely to

promote competition despite a finding that the service provider has the ability and incentive to exercise market power to adversely affect competition in a dependent market. High barriers to entry in the dependent market(s) may mean that coverage would not deliver a promotion of competition, despite the service provider having the ability and incentive to use market power to distort competition in the market(s). An example is the situation where a pipeline's natural monopoly and bottleneck characteristics confer market power on the service provider in the dependent market(s), yet prohibitive barriers to entry in the market(s) mean that the pro-competitive effects of coverage would be negligible.

5.221 Accordingly, if the Council finds that the service provider has the ability and incentive to use its presumed monopoly power to adversely affect competition in a dependent market, then it will also consider the height of barriers to entry in the dependent market that are unrelated to the natural monopoly and bottleneck characteristics of the pipeline.

5.222 It is only where the service provider has both the ability and incentive to use its presumed monopoly power to affect adversely competition in the dependent market(s) that coverage will be likely to improve the conditions for competition in the market(s). Ordover and Lehr propose three lines of inquiry for assessing whether a service provider has the ability and incentive to use its monopoly power to adversely affect competition in the dependent market(s):

(a) the service provider may charge monopoly prices for the provision of the service;

(b) the service provider may engage in explicit or implicit price collusion; and / or

(c) the service provider with a vertically related affiliate may engage in strategic behaviour to leverage its presumed monopoly power into the dependent market(s).

5.223 The Council considers the Ordover and Lehr framework for assessing a service provider's ability and incentive to exercise market power to adversely affect competition in a dependent market to be wholly consistent with the Tribunal's approach in the Duke EGP decision. The Ordover and Lehr framework represents a refinement of the approach of the Tribunal in the Duke EGP decision in that it provides a robust theoretical framework that may

be applied to any coverage matter under the National Gas Access Code.

5.224 Whether the service provider will engage in the conduct described above depends upon it having both the ability and incentive to do so. The service provider may not have the ability and incentive to exercise market power to adversely affect competition in the dependent market(s) where:

(a) the pipeline does not occupy a bottleneck position in the supply chain for the service - that is, the service provider faces effective competition in the dependent market(s); or

(b) the incentives faced by the service provider are such that its optimal strategy is to exercise market power to pro-competitively affect competition in the dependent market(s). It may be profit maximising, for example, for a service provider to promote increased competition in the dependent market(s) and maximise demand for the services provided by the pipeline.

5.225 In the event that GGT has both the ability and incentive to use its market power to adversely affect competition in a dependent market(s) and prohibitive barriers to entry do not exist in that market(s) with the result that the pro-competitive effect of coverage in the absence of the State Agreement would not be negligible, the Council must consider whether coverage of the GGP under the National Gas Access Code will further promote competition beyond the level prevailing under the State Agreement absent coverage. In other words, the Council must consider whether the State Agreement effectively constrains GGT's ability and incentive, if any, to exercise market power in the upstream and downstream markets and, if not, whether the National Gas Access Code would be a more effective constraint on GGT's ability and incentive to exercise market power.

5.226 In summary, in assessing whether coverage would promote competition in a dependent market(s) in the present matter, the Council must assess:

(a) whether, in the absence of access regulation (i.e. if neither the State Agreement nor the National Gas Access Code applied to the GGP), GGT would have the ability and incentive to exercise market power to adversely affect competition, by engaging in:

(a) the extraction of monopoly rents either through monopoly pricing or the imposition of other terms and conditions of access;

(b) explicit or implicit price collusion; or

(c) vertical leveraging behaviour,

in the relevant dependent markets;

(b) whether GGT faces effective competition in the relevant dependent markets such that its ability to exercise market power in those markets is constrained;

(c) whether prohibitive entry barriers exist in the relevant dependent markets, such that access regulation (i.e. either the State Agreement or the National Gas Access Code) would not promote competition in those markets; and

(d) whether the National Gas Access Code will further promote competition in the relevant dependent markets, relative to competitive conditions under the State Agreement absent coverage.

Does GGT have the ability and incentive to exercise market power to adversely affect competition in a dependent market absent access regulation?

5.227 The Council turns now to consider whether GGT would have the ability and incentive to adversely affect competition, by engaging in:

(a) the extraction of monopoly rent through either monopoly pricing or the imposition of other terms and conditions of access;

(b) explicit or implicit price collusion; or

(c) vertical leveraging behaviour.

5.228 If a service provider faces only limited competition from other suppliers in the dependent market(s), then the service provider and other pipeline owner / operators providing competing services in the dependent market(s) may be able to jointly implement above-competitive prices through explicit or implicit price co-ordination.

5.229 In this instance, GGT faces limited competition in the upstream gas production and sales market from the DBNGP. This raises the possibility that GGT and Epic Energy could jointly implement above-competitive prices in respect of Varanus Island hub gas producers through explicit or implicit price coordination.

5.230 A number of factors, however, mitigate against the likelihood of effective collusion in this instance. For example:

(a) from the available information and discussions with interested parties, it would appear that GGT's pricing for the services of the GGP is not transparent and GGT has the ability to impose differential prices (subject to tariff setting principles approved under clause 22 of the State Agreement), so hindering price coordination particularly implicit price coordination. Price coordination in these circumstances may not be sustainable because cheating on the coordinated price is unlikely to be detected and non-transparent pricing makes it difficult for rivals to follow a competitor's pricing;

(b) long term contracting for the provision of transmission services occurs in respect of both the DBNGP and the GGP, which long term contracting is likely to increase the incentive for cheating on a coordinated price; and

(c) the GGP and the DBNGP provide non-homogenous services to upstream gas producers in the Varanus Island hub, with the result that it is not obvious that a uniform increase in prices by GGT and Epic Energy will leave their market shares unchanged.

5.231 As there is also no evidence of parallel behaviour between GGT and Epic Energy at this time, the Council concludes that explicit or implicit price collusion between GGT and Epic Energy, in respect of the GGP and the DBNGP respectively, is not a concern.

5.232 Further, the Council does not consider that GGT has the ability and incentive to engage in vertical leveraging behaviour.

5.233 A service provider may engage in strategic behaviour designed to leverage its presumed monopoly power into the dependent market(s) to advantage a vertically related affiliate in that dependent market(s). For example, the service provider may charge

lower prices for providing the services to its affiliates and / or offer non-affiliates access to the service on unequal or inferior terms.

5.234 With respect to the potential for vertical leveraging by GGT, the Council is not aware of any vertical interests possessed by GGT in respect of any upstream or downstream market participant. As discussed in GGT's application, GGT is currently owned by an unincorporated joint venture comprising:

(a) Southern Cross Pipelines Australia (62.664 per cent);

(b) Southern Cross Pipelines (NPL) Australia (25.493 per cent); and

(c) Duke Energy (11.843 per cent).

5.235 Ownership of the Southern Cross Companies is currently comprised of:

(a) CMS (45 per cent);

(b) APT (45 per cent); and

(c) Transalta (10 per cent). (GGT advised in its application that APT announced its intention to acquire Transalta's 10 per cent interest in the Southern Cross Companies in February 2003 and was in the process of acquiring the interest held by Transalta at the time of lodging GGT's Application (GGT 2003, pp. 4 and 9).

5.236 The Council is unaware of any interest held by CMS, APT, Transalta or Duke Energy in any vertically related participant in the relevant upstream or downstream markets. Further, the Council is unaware of any interest held by such a vertically related participant in any of CMS, APT, Transalta or Duke Energy.

5.237 The Council is also unaware of any other arrangement with any participant in the relevant upstream or downstream markets, such as a mining venture or gas producer, that would provide GGT with an incentive to leverage its natural monopoly power to advantage itself. Accordingly, the Council does not consider that strategic behaviour to vertically leverage GGT's natural monopoly power into the upstream or downstream markets is a concern.

5.238 Therefore, the Council will focus its enquiry into GGT's ability and incentive to exercise market power to adversely affect competition

in one or more of the dependent markets on whether GGT has the ability and incentive to extract monopoly returns through either monopoly pricing or the imposition of other terms and conditions of access.

Ability and incentive to extract monopoly returns through terms of access

5.239 GGT may be able to set prices for the services that substantially exceed its forward looking, long run economic costs - that is, the level of prices that should prevail in the presence of effective competition.

5.240 This would be likely to increase the price of gas in the downstream markets above competitive levels — suppressing demand in the upstream and downstream markets. Alternatively, where participants in the dependent markets do not pass through the full above-competitive prices for the service, the lower margins in those markets may reduce incentives to invest in the dependent markets and could have an adverse effect on competition in those markets. (Ordover and Lehr 2001, pp. 12-13).

5.241 The Council considers that monopoly pricing by GGT in the provision of the services of the GGP would be likely to adversely affect competition in the upstream gas production and gas sales market, the downstream gas sales market and/or the downstream retail gas sales market. In addition, the Council considers that in the event that GGT has the ability and incentive to engage in monopoly pricing in the upstream or the downstream gas sales market in the absence of access regulation, that monopoly pricing would likely also adversely affect competition in the downstream retail electricity market in the area in the vicinity of Kalgoorlie connected to the SWIS.

Does GGT face effective competition in the dependent markets?

5.242 The ability of the GGT to engage in monopoly pricing may be constrained by competition faced by the GGT in the dependent market. The existence of effective competition to the GGP in the dependent markets is likely to render a substantial price increase above the competitive level unprofitable.

5.243 Ordover and Lehr noted this point in relation to the MSP in the following terms:

> *Ultimately, if the MSP faces effective competition in both the upstream (i.e., Cooper Basin producers can sell their gas to other retail markets not served by the MSP) and the downstream market (i.e., there are substitute sources of gas supply to the NSW / ACT retail markets that do not depend on the MSP), then the MSP will not be able to effectively exploit its presumed monopoly power in the provision of pipeline services between Cooper Basin and NSW / ACT. If this is the case, then coverage which would limit the potential for the MSP to abuse its notional market power would not improve conditions for competition in the upstream or downstream markets.* (Ordover and Lehr 2001, p. 19)

5.244 The existence of competitive alternatives to GGT in a dependent market constrains the exploitation of GGT's natural monopoly power in that dependent market, as participants in the dependent market can then bypass GGT with the result that GGT does not occupy a bottleneck position in the supply chain. Ordover and Lehr explained this in considering the ability of the MSP to monopoly price in the upstream production market and the downstream retail market for gas:

> *The MSP's ability to monopoly price is potentially constrained by competition in upstream or downstream markets. Regarding the upstream markets, if gas producers can sell their gas to other retail markets via other pipelines, they will refuse to sell gas to MSP unless they earn the same return on the marginal unit of gas shipped to Sydney (or ACT) as they earn on shipments to other locales. This type of competition will constrain MSP's ability to set transport prices substantially above economic costs, even if MSP remains a monopolist with respect to transport between Cooper Basin and the markets in NSW/ACT. Retarding the downstream markets, if there are other sources of natural gas supply to the retail markets in NSW/ACT then MSP cannot overprice transport since with would render the gas shipped over it uneconomic. As noted, this ability of consumers to switch to gas from other sources also constrains the MSP's ability to set transport prices substantially above economic costs.*
>
> *Source and/or destination competition is an effective constraint on MSP, if there is sufficient independent capacity to absorb gas output on pipelines going to other destinations and if there is sufficient volume of gas output from other sources to which consumers can divert their demand in the face of elevation in price of the gas delivered over MSP. If these conditions are met, a substantial price increase above the competitive level will likely*

be unprofitable. This is so, despite the fact that the pipeline (here the MSP) is actually a natural monopoly over transport from the Cooper Basin to NSW and ACT. (Ordover and Lehr 2001, p. 13)

5.245 Accordingly, the starting point for assessing GGT's ability and incentive to exercise market power to adversely affect competition in the relevant dependent markets is an inquiry into whether GGT faces effective competition in each of those dependent markets. For example, GGT's ability to exercise market power in the dependent markets may be effectively constrained if:

(a) Gas users located along the route of the GGP are able to shift their demand to alternative sources of energy at a competitive price; and

(b) producers in the upstream market can sell their gas into alternative destinations, for example via pipelines other than the GGP, or in the LNG export market either following processing or by means of supplying a LNG producer at comparable rates of return.

5.246 In addition to the existence of competition to the GGP in the dependent markets, the market power of participants in the dependent markets may constrain the ability of GGT to exercise its natural monopoly power in those dependent markets. In considering the ability of the MSP to exercise monopoly power in the upstream production market, for example, Ordover and Lehr stated:

The ability of the MSP to exert monopsony power also depends on the market power of producers. If producers have market power, then the ability of the MSP to exercise monopsony power will be constrained. Producers' market power depends on the availability of alternative outlets for gas as well as their ability to 'bargain' jointly with the MSP. To the extent that there is a danger of collusion among the incumbent gas producers and the MSP, coverage may lower entry barriers upstream by reducing the ability of the upstream incumbent gas producers to collusively foreclose access to the MSP. Of course, if there are other entry barriers into gas development in the Cooper Basin, then coverage may be of lesser importance to upstream competition. (2001, p. 17)

5.247 GGT has no alternative use for its pipeline but to ship gas from CS1 to locations along the route of the GGP. Where the participants in a dependent market have no economic alternatives that allow it to

effectively 'bypass' the GGP, the resultant situation is what Ordover and Lehr described as one in which there is:

> *…potentially bilateral market power (ie market power both on the sell and buy sides of the market* (Ordover and Lehr 2001, p. 16).

5.248 This scenario may create incentives for joint bargaining between GGT and the participants in the dependent market. If an outcome of this market dynamic was collusion between GGT and the participants in the dependent market, significant barriers to entry in the dependent market could result.

5.249 Ordover and Lehr considered that coverage could play a role in mitigating the risk of collusion. In considering the potential for coverage to mitigate the risk of collusion between the MSP and upstream gas producers, Ordover and Lehr stated:

> *To the extent that there is a danger of collusion among the incumbent gas producers and the MSP, coverage may lower entry barriers upstream by reducing the ability of the upstream incumbent gas producers to collusively foreclose access to the MSP… However, absent coverage, the consortium might be able to foreclose entry of new producers by signing a favourable long term contracts with the MSP* (Ordover and Lehr 2001, p. 17, 18).

Does GGT face effective competition in the upstream market for gas production and sales?

5.250 If GGT has monopsony power in the upstream market for gas production and sales in the Varanus Island hub, it may be able to exercise market power in respect of the terms and conditions on which it will provide access to upstream market participants. As discussed at paragraph 5.162 above, AlintaGas and mining ventures located along the route of the GGP acquire gas in the upstream market for gas production and sales.

5.251 Accordingly, GGT's market power may be constrained if:

(a) upstream producers can market their gas to alternative destinations (for example, via pipelines other than the GGP) at comparable rates of return; and

(b) purchasers of gas in the upstream market, specifically AlintaGas and mining ventures located along the route of

the GGP, are able to shift their demand to alternative sources of energy at competitive prices.

5.252 The ability of GGT to exercise market power in the upstream market may be constrained if gas producers can sell their gas to destinations other than those located along the route of the GGP. If viable options exist, upstream producers will only sell gas to destinations located along the route of the GGP if they can earn a similar return on the marginal unit of gas shipped to locations along the route of the GGP as they earn on sales to alternative outlets.

5.253 In considering the effectiveness of alternative pipelines as a constraint on the exercise of market power by MSP, Ordover and Lehr stated:

> *The strength of this competition depends on the available capacity on alternative pipelines as well as the retail prices of gas in the destination markets of these pipelines. If the aggregate capacity of these pipelines is small relative to total output of the gas field, the concern that transport to NSW/ACT may be overpriced is not necessarily obviated. For example, the dominant pipeline may "allow: its smaller rivals to bid for all the output that they can profitably take and then charge a supracompetitive rate for transporting the remaining share of gas output.* (Ordover and Lehr 2001, p. 17)

5.254 GGT argued that upstream market participants have both alternative outlets and countervailing market power available to them. In particular it argued that upstream market participants have both LNG production and export sales and the transportation of gas to alternative destination markets via the Western Australian gas transmission network as alternative outlets for the sale of their gas:

> *[M]ore than half of Western Australia's gas production is directed towards LNG export. The degree to which gas producers in Australia are currently reported to be competing to each increase their share of LNG export earnings is a clear indication of the relative attractiveness of this particular alternate upstream market for gas. It is not necessary to delve into price differentials to understand this.*
>
> *In terms of gas deliveries, the GGP transports just 3.4% of the available upstream gas produced and accounts for only 9% of gas delivered via the Western Australian gas transmission network. However, given that gas transmission forms only one aspect of the Western Australian energy transmission network*

and that the GGP faces direct competition from electricity transmission and remote site, diesel fuelled power generation, the influence which the pipeline has within the market is even further constrained than this figure might imply. Clearly in respect to the GGP, upstream market participants have both alternative markets and countervailing market power available to them. (GGT 2003, p. 35)

5.255 The Council considers, however, that the fact that the GGP transports approximately:

(a) 3.4 per cent of the gas produced in Western Australia's Carnarvon, Perth and Bonaparte Basins (based on current gas production transported via the GGP of 27PJ per annum and total gas production of 798 PJ in 1999/2000); and

(b) 9 per cent of gas delivered via the State's gas transmission network (based on the 300 PJ of gas production in 1999/2000 which was transported to its final point of consumption by the state's transmission pipeline network) (GGT 2003, p. 23)

is of little guidance in assessing whether GGT faces effective competition in the upstream market for gas production and sales in the Varanus Island hub.

5.256 As stated by WMC:

The essence of market analysis is to examine the competitive dynamics which are operating in transactions between buyers and sellers. The answer to this will not emerge from arithmetical assessments of throughput numbers if those numbers are not reflective of the relevant transactions. (WMC Submission 1, p. 41)

5.257 The Council considers that the throughput numbers do not reflect the relevant transactions. First, gas produced in the Perth and Bonaparte Basins and gas fields in the Carnarvon Basin other than those in the Varanus Island hub is of little relevance in assessing the competitive alternatives available to producers in the upstream market for gas production and sales in the Varanus Island hub.

5.258 Second, the Council does not accept GGT's assertion that all of the State's existing production can potentially access all of the existing Western Australian domestic gas transmission pipeline infrastructure. (GGT 2003, p. 23) In particular, GGT did not consider whether the transportation of gas produced in the upstream market for gas production and sales in the Varanus

Island hub can technically and economically be transported by alternative pipelines, such as the DBNGP.

5.259 In assessing whether GGT faces effective competition in the upstream market for gas production and sales in the Varanus Island hub, the issue is whether Varanus Island hub gas producers have alternative outlets for the sale of their gas other than the supply of gas to destinations located along the route of the GGP, that offer comparable rates of return.

5.260 One possible alternative outlet for gas producers in the Varanus Island hub is sale of gas to the LNG export market. The Council considered the feasibility of this in its discussion of the geographic boundaries of the upstream market for gas production and sales. For the reasons outlined in paragraph 5.88, the Council concludes that the LNG export market is not an alternative outlet for gas producers in the Varanus Island hub at comparable rates of return.

5.261 Further, the Council has considered GGT's submission that the Gorgon development will alter the economic alternatives available to selling gas via the GGP for gas producers in the Varanus Island hub (GGT Submission of 22 October 2003 at p7). As discussed at paragraphs 5.93 to 5.96 above, the Council is satisfied that the Gorgon development will not provide Varanus Island hub producers with alternative supply outlets.

5.262 Another possibility is that Varanus Island hub producers could divert gas sales from destinations along the route of the GGP to Perth and other destination markets located along the route of the DBNGP. The feasibility of such an alternative outlet would depend on whether a significant barrier is imposed on transportation of gas produced in the Varanus Island hub by the DBNGP's gas specification. The Council does not consider this to be the case. Indeed, as discussed at paragraph 5.86, gas produced in the Varanus Island hub is currently transported on the DBNGP.

5.263 While the transportation of gas on the DBNGP may be an alternative outlet for Varanus Island hub producers, the Council does not consider that it is an effective constraint on GGT's ability and incentive to exercise market in the upstream market due to capacity constraints on the DBNGP.

5.264 The DBNGP is currently operating close to full capacity. The application notes that the maximum capacity of the DBNGP is 650 TJ/day (with full compression but no looping), and that its

current capacity is 600 TJ/day. Current contracted capacity is 593 TJ/day, leaving scope for further contracting for a firm service for, approximately, an additional 7 TJ/day (GGT 2003, p. 28). An additional 50 TJ/day of capacity for firm services can be achieved with full compression, and there is scope to substantially increase capacity on the DBNGP beyond 650 TJ/day for firm services through progressive looping. Once the pipeline is fully looped, there would then be scope to progressively "triplicate" the pipeline. The economics of this exercise are not substantially different from looping of the pipeline.

5.265 While there are no significant technical constraints to expanding the DBNGP's capacity for firm services, the principal issue would be to determine who pays for the expansion, and under what terms and conditions. The Council considers that this may be determined through commercial negotiation, or failing this, under the arbitration provisions of the National Gas Access Code.

5.266 The Council considers that the possibility of expansions in the capacity of the DBNGP for firm services is a relevant consideration in gauging GGT's market power, but observes that such an expansion would likely take time as well as requiring the resolution of a number of commercial issues.

5.267 From the factual information available with respect the DBNGP's capacity, the Council concludes that redirecting GGP gas sales to destination markets along the route of the DBNGP to the extent required to impose an effective constraint on the exercise of market power by GGT in the upstream market, is not viable in the short term as the current capacity of the DBNGP for firm haulage is close to fully contracted. As noted above, the current uncontracted capacity of the DBNGP for firm services is approximately 7 TJ/d. By comparison, GGT stated in its application that the current contracted capacity of the GGP for firm haulage was 100 TJ/day, with all gas supplied to locations along the route of the GGP being produced in the Varanus Island hub.

5.268 In the longer term, this capacity constraint could be overcome if commercial impediments to expanding the DBNGP are resolved. The Council notes, however, that resolution of capacity issues would not, of itself, be a sufficient condition to make the option to sell gas to destination markets on the DBNGP an effective constraint on GGT - even in the long run.

5.269 Rather, the viability of this option for gas producers in the Varanus Island hub would depend on whether demand for gas at destination markets along the route of the DBNGP can grow rapidly enough to absorb the necessary diversions of gas sales from destinations on the route of the GGP at prices at least equivalent to marginal returns from selling to those latter destinations.

5.270 It is for these reasons that the Council concludes that the option for Varanus Island hub producers of selling gas to destinations located on the route of the DBNGP is not an effective constraint on GGT's ability and incentive to exercise market in the upstream market.

5.271 In reaching this conclusion, the Council has had regard to submissions from GGT in relation to the sale of gas by the East Spar joint venture to Alinta via the DBNGP for use at the Pinjarra electricity generation facility and the finalisation of the Burrup Fertiliser Gas Sales Contract for the sale of gas by the Harriet joint venture via the DBNGP.

> *In this regard, GGT would like to draw the NCC's attention to recent statements concerning the sale of gas by the East Spar Joint Venture to AlintaGas (via the DBNGP) for use at its Pinjarra electricity generation facility as well as the finalisation of the Burrup Fertiliser Gas Sales Contract (also delivered via the DBNGP) which has resulted in the commercialisation of the Harriet Joint Venture's current unsold gas reserves. Crediting the parties involved with being competent commercial ventures, it would seem reasonable to assume that the rates of return from these contractual arrangements compare favourably with alternative available business opportunities.*
>
> …
>
> *Certainly one must conclude that present and potential future Varanus Island hub producers have real economic alternatives to selling gas via the GGP (whether or not they satisfy the theoretical economic hurdles established by the NCC).*

5.272 From the limited publicly available information, the Council concludes that this project will likely utilise current contracted capacity on the DBNGP.

5.273 The commercial arrangements underpinning the Burrup Fertiliser project have been under negotiation for the past 3 years, with Burrup Fertilisers Pty Ltd first approaching the Western Australian Government in relation to the use of Western Australian

natural gas to manufacture ammonia in 2000[11]. Further, the Tap Oil Limited 2003 Annual Report refers to 'the Burrup Fertilisers gas supply contract becoming unconditional' and states that the project will utilise 81 TJ/d, which is far in excess of the current available capacity on the DBNGP.

5.274 In September 2003, the East Spar joint venture signed a contract to supply gas to the new gas fired co-generation plant in Pinjarra[12]. The Pinjarra co-generation plant will be constructed and owned by Alinta on land sold to it by Alcoa, with Alcoa responsible for the operation and maintenance of the plants under contract to Alinta.[13] The full contract daily volume when the plant is commissioned in 2005 is expected to be 23 TJ/day, again far in excess of the current available capacity on the DBNGP[14]. As Alinta is a major existing shipper on the DBNGP, it is possible that the supply of gas by the East Spar joint venture to the Pinjarra cogeneration plant will utilise existing contracted capacity on the DBNGP.

5.275 Therefore, in view of the known uncontracted capacity on the DBNGP, in the absence of more detailed information to the contrary it is not possible to conclude that either the Burrup Fertiliser Gas Supply Contract or the East Spar joint venture's contract to supply the Pinjarra cogeneration plant illustrate the existence of economic alternative destination markets for gas producers in the Varanus Island hub currently supplying gas via the GGP. As such, the Council's conclusion that the capacity constraint on the DBNGP limits the alternatives available to the upstream market for sale of gas currently supplied via the GGP remains reasonable.

5.276 As the option of diverting gas to the DBNGP is not an effective constraint on GGT's ability and incentive to exercise market power in the upstream market, GGT is in a position of bilateral market power (i.e. market power on both the sell and the buy sides of the

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[11] Burrup Fertilisers Pty Ltd website at www.burrupfertilisers.com.

[12] Santos Ltd media release titled 'East Spar wins contract to supply new cogeneration unit' dated 10 September 2003 available on its website at www.santos.com.

[13] Alinta Electricity and Steam Co-generation Project Fact Sheet No 1 August 2003, available on Alinta's website at www.alinta.biz.

[14] Santos Ltd media release titled 'East Spar wins contract to supply new cogeneration unit' dated 10 September 2003 available on its website at www.santos.com.

market) discussed above at paragraph 5.247, particularly having regard to Apache's role in the sale and marketing of the majority of gas produced in the Varanus Island hub. However, while accepting the theoretical possibility of collusion between GGT and upstream producers the Council has found no evidence of collusion between GGT and Varanus Island hub producers. For this reason, the Council does not rely on the possibility of collusion in assessing the case for coverage of GGT under criterion (a).

5.277 The ability of GGT to exercise market power in the upstream market may also be constrained if purchasers of gas in the upstream market, specifically AlintaGas and mining ventures located along the route of the GGP, are able to shift their demand to alternative sources of energy at a competitive price. However, there are no alternatives to gas available to AlintaGas, as a gas retailer. In addition, as discussed above in defining the product dimension of the downstream market, mining ventures located along the route of the GGP do not have competitive alternative sources of energy. Specifically:

(a) electricity transmitted by the Muja-Kalgoorlie transmission line is not a close substitute for, or an economic alternative to, gas for mining ventures located in the area in the vicinity of the SWIS; and

(b) diesel is not a close substitute for, or an economic alternative to, remotely located mining ventures.

5.278 Further, there are no competing pipelines supplying either any remotely located mining ventures or gas users located in the vicinity of Kalgoorlie.

Does GGT face effective competition in the downstream markets?

5.279 GGT's ability to exercise market power in the relevant downstream markets would be constrained if downstream competition to GGT in each of those markets, respectively, is effective. In other words, GGT's market power may be constrained if gas users in the downstream gas sales market and the downstream retail gas sales market are able to divert their demand to alternative sources of energy at competitive prices.

5.280 There are no alternative sources of gas in the downstream markets for gas serviced by the GGP. No gas users in Kalgoorlie are supplied with gas via a competing pipeline.

5.281 Accordingly, any competitive alternative available in the downstream markets that could potentially constrain GGT's ability to exercise market power in those markets would, of necessity, have to be a different product to gas.

5.282 In defining the boundaries of the relevant downstream markets, the Council considered whether close substitution, i.e. sufficient substitution to effectively constrain the exercise of market power by a hypothetical monopolist of gas supply, existed between gas and the competitive alternatives said by GGT to be available in the downstream markets. The Council concluded, in defining the downstream markets, that such close substitution did not exist between gas and LPG in the downstream retail gas sales markets. Further there are no alternatives to gas for the electricity generators with gas fired plant.

5.283 For the reasons discussed in reaching this conclusion in relation to market definition, the Council similarly concludes that there are no competitive alternatives available to downstream market participants. GGT does not, the Council concludes, face effective competition in any of the downstream markets.

5.284 Finally, the Council notes that, as discussed above at paragraph 5.109, GGT contended in its application that electricity transmitted by the Muja-Kalgoorlie transmission line constrains GGT's ability to exercise market power.

5.285 While the Council has considered whether electricity transmitted by the Muja-Kalgoorlie transmission line is a competitive alternative for mining ventures that acquire gas in the upstream market for gas production and sales, the Council acknowledges that there are a number of mining ventures that consume gas fired electricity supplied by WMC, Newmont Power, SCE or GP that do not acquire gas in the upstream market. Nonetheless, for the reasons discussed at paragraphs 5.169 to 5.186 above, the Council concludes that substitution towards electricity transmitted by the Muja-Kalgoorlie transmission line to the extent required to constrain GGT's exercise of market power is not possible due to:

(a) the technical transfer limit on the Muja-Kalgoorlie transmission line; and

(b) the contractual arrangements between WMC, Newmont, GP and Newmont Power, and users of gas fired electricity for the supply of gas fired electricity.

Does GGT have an incentive to engage in monopoly pricing?

5.286 Where GGT's ability to exercise market power is not constrained by the existence of competition to it in the dependent markets, GGT may nonetheless lack the incentive to exercise market power to adversely affect competition in the dependent markets, for example through monopoly pricing. Rather, GGT may have an incentive to engage in strategies designed to promote competition in the dependent markets.

5.287 GGT contended in the application that it has an incentive to promote the use of the GGP by reason of the State Agreement and the commercial imperatives facing it (GGT 2003, pp. 30-32). The Council discusses whether the State Agreement is an effective constraint on any ability and incentive for GGT to exercise market power in the dependent markets from paragraph 5.337 below. In relation to GGT's commercial incentives to promote the use of the GGP, GGT argues that the presence of developable capacity at relatively low incremental cost provides a commercial incentive to promote access to the GGP:

> *[I]t is in the owners' interests to "grow" their business. This is particularly the case for gas transmission pipelines like the GGP which exhibit very high capital costs with subsequently low marginal expansion and augmentation costs leading to the situation where the cost function for capacity expansion is declining.* (GGT 2003, pp. 30-31)

5.288 The existence of spare capacity and the cost characteristics of gas pipelines (high fixed costs, combined with low incremental costs) does create incentives for high rates of pipeline throughput. The Tribunal concluded in the Duke EGP decision that "[t]here are strong commercial incentives for Duke to increase the throughput of the EGP, given its high capital cost, low operating costs and spare capacity". (Duke EGP decision, paragraph 117) Ordover and Lehr also noted that:

> *Pipeline services are characterized by high fixed costs (associated with the pipeline itself) and rather low marginal (or incremental) cost of transport (at least as long as there is available capacity). This means that, up to capacity, the pipeline would find it incrementally profitable to transport additional gas even at a price that may be below long run average costs.* (Ordover and Lehr 2001, p. 23)

5.289 However, while the Council recognises that the existence of spare capacity and the characteristics of gas pipelines may create incentives for high rates of throughput, a risk of monopoly pricing and associated restrictions in output (relative to the level that would prevail if GGT faced effective competition in the dependent markets) remains. In respect of the incentives for the MSP to maximise throughput, Ordover and Lehr stated:

> *Opponents of coverage of the MSP have argued that this cost structure … reduces the risk that the MSP might abuse any monopsony power it may have to limit access to the pipeline since its profits are likely to be maximized if it maximizes throughput. This does not necessarily follow. If the MSP has monopsony power in the upstream market but faces effective competition in the downstream market (*i.e.*, the MSP takes prices as given in the downstream market), then its incentive to exercise monopsony power (by lowering the effective price it pays upstream producers) is reduced relative to the scenario where it also has downstream market power. However, this does not mean that such incentive is non-existent. And neither does it mean that low decremental costs (i.e. costs that MSP would avoid if it were to cut back on throughput) per force render the exercise of monopsony power unprofitable.*
>
> *A similar logic also applies to the downstream end. Just because marginal costs are low, does not mean that the optimal pricing strategy is to fill the pipe to capacity. It is true, however, that low marginal costs and high fixed costs create incentives towards high levels of throughput* (Ordover and Lehr 2001, p. 23).

5.290 While the existence of spare capacity and the cost structure of gas pipelines may create an incentive to increase throughput, this does not necessarily mean that the profit-maximising pricing strategy is to set prices at the competitive level. The profit-maximising level of throughput may be higher, and level of prices may be lower, than what they would be in the absence of available capacity, but this does not mean that prices will be constrained to the competitive level (i.e. that based on long run economic costs). Indeed, GGT acknowledged in its application that the presence of developable capacity at relatively low incremental cost is not sufficient to effectively constrain the potential for monopoly pricing by GGT:

> *Of course, it is a widely accepted economic precept that the existence of decreasing average cost in association with increasing service levels (or production) is a primary characteristic of a natural monopoly. One of the basic problems associated with the existence of a natural monopoly, which the Code is intended to address, is that the monopolist may choose to*

limit supply in order to maximise profit. Otherwise this results in a "market failure" in the economic sense that the service or good being supplied is not available at marginal cost as it theoretically might be in a perfectly competitive market.

5.291 The critical determinant of whether monopoly pricing will be profit maximising for GGT is whether there is effective competition to GGT in the dependent markets. GGT contended that it is not free to engage in monopoly pricing (or reduce supply) due to the presence of competitive alternatives to the service it supplies and the constraints imposed by the State Agreement. As discussed at paragraphs 5.250 to 5.285, the Council considers that alternatives to the service provided by GGT in the dependent markets are not an effective constraint on GGT.

5.292 The Council concludes that as a result of the GGP's spare capacity and cost structure, GGT likely has a commercial incentive to increase rates of throughput, i.e., by reducing prices. However, the Council also concludes that due to the absence of effective competition to GGT in the dependent markets, the commercial incentives facing GGT will not constrain pricing in the dependent markets to the competitive level.

5.293 GGT pointed to its history of offering tariff discounts and, in particular, its Economic Development Tariff (EDT) initiative as evidence of its commercial incentive to promote the use of the GGP. GGT stated:

The published third party tariffs available for the GGP have a history of discount offerings which have sought to increase the utilisation of the pipeline and hence realise the economic and social benefit of the pipeline's declining cost function. The Economic Development Tariff ("EDT") initiative which occurred just prior to GGT lodging a Proposed Access Arrangement, as it was required to do under the Code, explicitly sought to maximise the marginal cost benefit available to new users. (This is discussed in detail in Attachment 6, "Overview of Economic Development Tariff"). The lack of success of that initiative was not due in any part to a lack of desire on the part of GGT to see greater gas throughput via the GGP realised, but was more a reflection of the "economics of catchment" (see below) and of regional demand. (GGT 2003, p. 31)

5.294 The Council observes, however, that GGT's history of tariff discounting and the EDT initiative are consistent with a risk of monopoly pricing. The tariff discounting and the EDT initiative likely reflect GGT's commercial incentive to increase throughput on

the GGP but, as discussed above, it does not necessarily follow that the resultant profit-maximising tariff is the competitive tariff. That is, GGT's discounted tariffs and the EDT may, nonetheless, have been above the competitive tariff (i.e., long run economic costs). Similarly, the removal of the tariff discounts and the abandonment of the EDT initiative when no increase in throughput resulted are equally consistent with both a failure to realise the expected decrease in average costs on which the discounted tariffs and EDT were based, and recognition that increased monopoly pricing is profit maximising. In this regard, an examination of discounted tariffs offered by GGT for monopoly pricing is illuminative.

Is there any evidence of monopoly pricing in actual pricing outcomes?

5.295 In paragraphs 5.242 to 5.285, the Council examined structural conditions in the upstream and downstream markets to assess whether GGT would have the ability and incentive to engage in monopoly pricing. An alternative way of assessing whether GGT has the ability and incentive to engage in monopoly pricing in the dependent markets is to consider pricing outcomes as evidence of the exercise of market power by GGT. If GGT does not have the ability and/or incentive to engage in monopoly pricing in the dependent markets, monopoly pricing is likely to be unprofitable and so is unlikely to occur. If, however, an examination of actual pricing outcomes reveals evidence of monopoly pricing (that is, prices exceed long run economic costs), it can be inferred that GGT has the ability and incentive to engage in monopoly pricing.

5.296 The Council acknowledges that it is very difficult to estimate competitive prices to use as a benchmark for assessing whether monopoly pricing is occurring without coverage. As noted by Ordover and Lehr, "'competitive' prices are notoriously difficult to estimate in network industries characterized by significant fixed costs and low variable costs" (Ordover and Lehr 2001, p. 19).

5.297 At the time of this draft recommendation, the best evidence available on whether GGT is currently charging monopoly tariffs is the Regulator's Draft Decision on the GGP Access Arrangement under the National Gas Access Code. The Tribunal in the Duke EGP decision, noted some concern in using regulated prices for an assessment of whether pricing exceeds the competitive level:

> *[T]he AGL argument was that a tariff set under the Code represents the price which would be produced by efficient*

competition because that is what the Code requires in s.8.1; it then follows that a difference between the Duke tariff and one determined under the Code is evidence that there is not efficient competition even when there is competition in the marketplace.

This argument does not take sufficient account of the fact that regulation is a second best option to competition. The complex nature of the tariff-setting process, the number of assumptions it relies on, and the fact that the reference tariff is a publicly available price which may be varied by negotiation between the pipeline owner and user depending on the user's requirements and conditions in the marketplace, all point to the fact that the reference price is not necessarily the price that would result from competition. (Duke EGP decision, paragraphs 190-110).

5.298 Section 8.1 of the National Gas Access Code requires that reference tariffs under the Code should be designed with a view to achieving the following objectives:

(a) providing the Service Provider 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 a competitive market;

(d) not distorting investment 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 and other Services.

5.299 The Tribunal found in the DEI Queensland Pipeline decision that:

Sections 3.4 and 3.5 of the Code have been drafted on the basis that an Access Arrangement, as well as the Reference Tariff and Reference Tariff Policy included in that Arrangement, must comply with the Reference Tariff Principles described in s8 of the Code.

> *… Section 8.1 of the Code lists a number of objectives…. (F)or example, the objective listed in s8.1(b) of the Code is "replicating the outcome of a competitive market". The outcomes of a competitive market involve not only prices that reflect efficient costs, but a range of non-price conduct. Non-price conduct can affect the achievement of the objectives of s8.1.*
>
> *… The Code requires the ACCC to seek to achieve the objectives set out in s8.1 not only in setting a Reference Tariff but also in approving any Access Arrangement.* (DEI Queensland Pipeline decision, paragraphs 46-51)

5.300 The Council considers that the Tribunal's interpretation of the s.8.1 objectives affirms that these objectives are concerned with ensuring a regulatory outcome that is characterised by "the outcomes of a market that works optimally". Further, the Tribunal's interpretation of s.8.1(b) of the National Gas Access Code affirms that the objective of "replicating the outcome of a competitive market" involves prices that reflect efficient costs, as well as non-price attributes tailored to what customers want. The Regulator must take account of the s.8.1 objectives in determining appropriate Reference Tariffs under the Code.

5.301 The Council acknowledges that the Western Australian Supreme Court in the Epic Energy decision concluded that s8.1 does not establish an over-arching requirement that the Regulator's assessed Reference Tariffs should reflect the efficient costs of providing the Reference Service. In relation to the determination of reference tariffs, the Court stated:

> *Under the heading of "General Principles" the first paragraph of this overview contains the statement that the "overarching requirement is that when reference tariffs are determined and reviewed, they should be based on efficient cost (or anticipated efficient cost) of providing the reference services". There is no provision in s8 to this effect. S8.1(a) comes nearest to the suggested overarching requirement. It does not provide, however, that it is to be overarching. Further, s8.1(a) is but one of several objectives some of which may well conflict with each other, in which event the last paragraph of s8.1 enables other objectives to prevail over s8.1(a).* (Epic Energy decision, paragraph 157)

5.302 It is possible that the Regulator will revise his assessed Reference Tariffs in finalising the GGP Access Arrangement, taking into account the Epic decision if relevant. The Council considers, however, that where GGT's current pricing substantially deviates from the Regulator's assessed Reference Tariffs set out in the Draft

Decision, it will nonetheless be reasonable to conclude that current prices exceed competitive levels. The Council considers that, in view of the Tribunal's findings in the DEI Queensland Pipeline decision, it would be appropriate for the Council to rely on evidence of a substantial differential between the Regulator's proposed Reference Tariffs and GGT's current pricing as indicating that absent coverage, GGT has the ability and incentive to set prices substantially above economic costs and, indeed, is currently doing so.

5.303 While Ordover and Lehr noted that an appropriate estimate of economic costs is a matter of some contention in assessing MSP tariffs, they pointed to the substantial gap between the ACCC's proposed Reference Tariffs for the MSP and current pricing by the MSP as evidence of monopoly pricing by the MSP:

> *While there is disagreement among the participants to this inquiry as to what constitutes an appropriate estimate of economic costs, the ACCC's draft access order calls for rates that are as much as 40% below current levels by some accounts. Moreover, there is evidence that prices have fallen since the EGP began operation, which implies that the MSP's pre-EGP margins were even higher. If one assumes that the ACCC's estimates are accurate within plus or minus 10 percent of the true level of economic costs, then this suggests that competition in the source and destination markets has not been - and is not currently - sufficiently potent to keep prices at levels that one would expect in effectively competitive markets* (Ordover and Lehr 2001, p. 19).

5.304 In reaching the conclusion that it is appropriate to have regard to the Regulator's proposed reference tariffs for the GGP in its Draft Decision on the GGP Access Arrangement under the National Gas Access Code in assessing whether there is evidence of monopoly pricing in GGT's prevailing tariffs, the Council has had regard to the submissions of GGT in relation to the Council's reliance in the Draft Recommendation on the Regulator's Draft Decision (at pp2-3 & 14) and the attached supporting advice from Minter Ellison. Specifically, Minter Ellison contend that the Council made the following errors of law in its Draft Recommendation (at pp3-4 of its advice):

> *[A]ny evidence that GGT is charging tariffs above what would be present in perfectly competitive conditions is considered sufficient by the NCC to warrant coverage under the Code. The Regulator's draft decision is said to be the relevant benchmark, presumably because the NCC considers the draft*

decision to incorporate prices not exceeding 'long run economic costs'.

The assumption that the Code works in this way (and hence that the 'future with coverage' will promote such a result) is, in our opinion, inconsistent with the findings of the Full Court in the Epic *decision. In our view, the adoption by the NCC of a perfectly competitive model for the 'future with coverage' scenario has resulted in the following significant errors of law being committed:*

(a) first, the NCC assumes that the Regulator's draft decision constitutes an appropriate benchmark for considering the future with coverage, notwithstanding that the Regulator himself has acknowledged that the draft decision is affected by errors of law and must be reconsidered in material respects;

(b) secondly, the NCC assumes that the Code operates to bring about perfectly competitive outcomes which, having regard to the Epic *decision, is a flawed premise for considering the future with coverage scenario; and*

(c) thirdly, the NCC has not considered whether the current pricing under the State Agreement Regime may in fact be consistent with a 'workably competitive' outcome within the meaning set out in the Epic *decision; if that is so, then it cannot simply be assumed that the future with coverage (ie. under the Code properly interpreted) must inevitably result in increased competition.*

In conclusion, because of the test being applied by the NCC (which disregards the construction of the Code set out in the Epic *decision), the comparison put forward between the future with and the future without coverage is flawed. In the result, the NCC has not carried out any substantive independent analysis of the extent to which current pricing of access to the GGP exceeds what would be tolerable in a workably competitive environment. Instead, it has simply assumed (based on a flawed draft decision and a misconstruction of the provisions of the Code) that the current tariffs exceed those which would prevail in a competitive environment.*

5.305 The Council has addressed Minter Ellison's contention that the Council adopts 'a perfectly competitive model for the 'future with coverage' scenario at paragraphs 5.200 to 5.205 above. As there discussed, the Council assesses whether GGT will face 'effective competition' in the dependent markets in the future without coverage, i.e. the future under the State Agreement. If the Council

concludes that GGT will not face effective competition in the dependent markets in the absence of coverage, the Council will then separately turn to consider whether the National Gas Access Code is likely to promote competition relative to the State Agreement.

5.306 With respect to Minter Ellison's contention at paragraph (a) above, the Council reiterates its comments at paragraph 5.302 above. It is possible that the Regulator will revise his assessed Reference Tariffs in finalising the GGP Access Arrangement, taking into account the Epic decision. However, where GGT's current pricing substantially deviates from the Regulator's assessed Reference Tariffs set out in the Draft Decision, it will nonetheless be reasonable to conclude that current prices exceed competitive levels. Put another way, where GGT's current pricing substantially deviates from the Regulator's assessed Reference Tariff, it is reasonable to conclude that any revision of the assessed Reference Tariffs by the Regulator in finalising the GGP Access Arrangement will nonetheless still result in assessed Tariffs that exceed the prevailing level.

5.307 With respect to Minter Ellison's contention at paragraph (b) above, the Council again notes that the focus of its inquiry into GGT's prevailing tariffs is not whether those tariffs deviate from the level that would prevail under perfect competition. Rather, the Council is concerned to determine whether GGT's tariffs deviate from the level that would prevail in the presence of effective competition facing GGT in the dependent markets.

5.308 Minter Ellison questions the appropriateness of using the Reference Tariffs assessed by the Regulator in his Draft Decision as a benchmark for pricing in the presence of effective competition, in view of the interpretation of the National Gas Access Code provisions by the Western Australian Supreme Court in the *Epic Decision*. Specifically, Minter Ellison note the following statements by the Court in relation to the construction of the National Gas Access Code provisions:

> …
>
> *(b) Workable competition indicates a market in which no firm has a substantial degree of market power. In the field of competition policy, especially market regulation, the prevailing view and usage among economists is that a reference to a competitive market is to a workably competitive market (paragraph 124).*

(c) *A workably competitive market would increase efficiency over a non-competitive market, but not necessarily fulfil the ideal efficiency standard of textbook models. Nevertheless, economists generally consider that competitive markets lead to conditions of economic efficiency (paragraph 125).*

(d) *In the Code, the concept of a competitive market is that which economists in this field would understand to be a workably competitive market (paragraph 126).*

…

(f) *The objective in section 8.1(b) of the Code seems to necessitate the application of economic methods and theory, albeit to replicate the outcome of a workably competitive market, because the achievement of competition in fact is not possible (paragraph 127).*

(g) *A workably competitive market will react over time and according to the nature and degree of various forces that are happening within the market. There may well be a degree of tolerance of changing pressures or unusual circumstances before there is a market reaction. A workably competitive market may well tolerate a degree of market power even over a prolonged period. The underlying theory and expectation of economists however is that with workable competition, market forces will increase efficiency beyond that which would be achieved in a non-competitive market, although not necessarily achieving theoretically ideal efficiency (paragraph 128).*

(h) *It appears to be inherent that in a workably competitive market, past investments and risks taken may provide some justification for prices above the efficient level (paragraph 144).*

5.309 The Council observes that 'workable competition' as defined by the Supreme Court in the *Epic Decision* is synonymous with effective competition. (Compare, for example, the description of workable competition by the Supreme Court in the statements extracted by Minter Ellison with the discussion of effective competition by Ordover and Lehr, set out at paragraph 5.203 above.) As such, the statements from the *Epic Decision*, extracted by Minter Ellison, support the view that the Reference Tariffs assessed by the Regulator in his Draft Decision are an appropriate benchmark for use in assessing whether the prevailing GGT tariffs deviate from the level that would prevail in the presence of effective competition facing GGT in the dependent markets.

5.310 With respect to Minter Ellison's final contention at paragraph (c), the Council observes that, in view of the interpretation of the National Gas Access Code provisions in the *Epic Decision*, in assessing current GGT tariffs against the Reference Tariffs assessed by the Regulator in his Draft Decision, the Council is in fact considering whether those current GGT tariffs are consistent with a workably competitive outcome. Where GGT's current tariffs substantially deviate from the Reference Tariffs assessed by the Regulator in his Draft Decision, it would be appropriate for the Council conclude that GGT's current pricing indicates that absent coverage, GGT has the ability and incentive to set prices substantially above economic costs (which costs include an allowance for efficient past investments and risks taken) and, indeed, is currently doing so.

5.311 The Council now considers the Regulator's proposed reference tariffs for the GGP (Table 2 in Appendix C) in its draft decision on the GGP access arrangement, as compared to:

(a) GGT's proposed reference tariffs (Table 1 in Appendix C) as set out in its access arrangement proposal; and

(b) GGT's current pricing.

5.312 The Council understands that the reference tariff proposed by GGT in its Access Arrangement Proposal approximately equated to the discounted tariff schedule known as the 'A4' tariff (prevailing at that time). The 'A4' tariff represented a reduction of approximately 25 per cent on the 'A1' tariff (the initial tariff schedule notified to the Minister under clause 22(4) of the State Agreement by the original joint venture owners of the GGP in January 1995) (Table 3 in Appendix C). A chronology of the changes in the tariffs for use of the GGP is set out in Table 4 of Appendix C. The Council understands that, while the majority of current shippers are subject to the 'A4' tariff as a result of the amendment of their contracts with GGT in January 2000 (or thereabouts), the 'A1' tariff currently prevails for any new shippers.

5.313 The reference tariffs proposed by the Regulator in its Draft Decision on the GGP Access Arrangement are approximately a 30 per cent discount on those proposed by GGT in its Proposed Access Arrangement (OffGAR 2001, p. 177). As the tariffs proposed by GGT in its Proposed Access Arrangement equate to GGT's discounted 'A4' tariff, this also suggests that the discounted tariffs offered by GGT in the past (the lowest of which was the 'A4' tariff)

were nonetheless above the competitive price. This supports the Council's conclusions at paragraph 5.294 that tariff discounting and the EDT initiative are consistent with both an incentive to increase throughput and monopoly pricing by GGT. Further, the Council observes that the tariff proposed by GGT in its Proposed Access Arrangement are approximately 25 per cent below the 'A1' tariff, which the Council understands to be GGT's currently prevailing tariff for use of the GGP.

5.314 The Council observes, for example, that the Regulator's assessed 'Toll' tariffs are approximately a 34 per cent discount on GGT's current 'Toll' tariffs. Similarly, the Council observes that the Regulator's assessed 'Capacity Reservation' and 'Throughput' tariffs are approximately a 45 per cent and 53 per cent discount respectively on GGT's current tariffs , respectively. (A notable exception exists in relation to GGT's current 'Capacity Reservation' tariff in relation to 16-20 year contracts. The Regulator's 'Capacity Reservation' tariff in relation to 16-20 year contracts is a discount of 80 per cent (not 45 per cent) on GGT's current 'Capacity Reservation' tariff in relation to 16-20 year contracts).

5.315 The Council notes that its comparison in the preceding paragraph between the Regulator's assessed reference tariffs and the prevailing GGT tariffs does not take into account any CPI indexing incorporated in the current GGT tariffs for the period between 1 January 2000, and 21 December 2001 However, even allowing for the difference between the Regulator's assessed reference tariffs and GGT's prevailing tariffs to be slightly smaller after allowing for indexing, the figures detailed in the preceding paragraph demonstrate that the Regulator's assessed Reference Tariffs represent a discount substantially in excess of 30 per cent on GGT's prevailing tariffs.

5.316 The Council observes that currently prevailing GGT tariffs exceed the Regulator's assessed reference tariffs set out in his Draft Decision on the GGP Access Arrangement by significantly more than would ordinarily be considered as an error margin. The Council concludes that the evidence available on the competitive price (i.e. long-run economic costs) indicates that current GGT tariffs are likely to be significantly above long-run economic cost - the level they should attain if GGT does not have the ability and / or incentive to engage in monopoly pricing. This supports the Council's conclusion, that GGT would have the ability and incentive to exercise market power to adversely affect competition in the

dependent markets in the absence of access regulation. It also provides evidence that GGT may be currently exercising market power through monopoly pricing.

5.317 The Council concludes, therefore, that:

(a) GGT would have the ability and incentive to engage in monopoly pricing in the upstream gas production and sales market and the downstream gas sales market in the absence of access regulation, which monopoly pricing would be likely to adversely affect competition in the dependent markets; and

(b) GGT may currently be charging monopoly tariffs in the upstream gas production and sales market and the downstream gas sales market, with a resultant adverse effect on competition in the relevant dependent markets.

Would the structure of any dependent market(s) prevent a promotion of competition by access regulation?

5.318 The Council has determined that GGT has the ability and incentive to engage in monopoly pricing which is likely to adversely affect competition in the relevant dependent markets. The Council must therefore consider whether there are any structural characteristics of the relevant dependent markets that would prevent coverage from promoting competition in those markets. As discussed at paragraph 5.220, such characteristics could include the presence of prohibitive barriers to entry in a dependent market unassociated with GGT's market power, which would prevent coverage from delivering a promotion of competition in that market.

5.319 In its application, GGT argued that the development of upstream gas prospects is demand-driven and development primarily occurs in response to opportunities in the LNG export market. Further, GGT referred, in its response to the WMC submission, to the presence of high barriers to entry in the upstream market, deriving from the fact that the vast majority of relevant natural gas fields are offshore. (GGT, Response to WMC Submission, p. 5)

5.320 The "promotion of competition" test, however, assesses whether coverage would make the dependent market more conducive to competitive behaviour and new entry. The Council considers, as a

general principle, that the removal of one barrier to competition is a positive step towards promoting competition, even if some other issues may remain.

5.321 Criterion (a) focuses on the environment for competition, rather than the achievement of immediate outcomes. As Ordover and Lehr pointed out in respect of the MSP, achieving greater depth in upstream competition may be a gradual process:

> *A reduction in entry barriers in either an upstream or downstream market need not automatically induce new entry. Because of other market frictions, entry may be slow in coming. Hence, criterion (a) cannot be taken to mean that coverage would rapidly induce entry relative to the no-coverage benchmark. Rather, we take the criterion to mean that coverage is justified if conditions in relevant market(s), including the likelihood of entry. Here, it is important to point out that the mere reduction in impediments to entry could stimulate competition among incumbent firms as the enhanced threat of entry forces the incumbents to act more competitively on all dimensions that matter to consumers…"* (Ordover and Lehr 2001, p.11).

5.322 In the absence of prohibitive barriers to entry in a dependent market, such as regulatory barriers to entry or the existence of a natural monopoly in the dependent market, coverage would be likely to promote competition in a dependent market where a service provider has the ability and incentive to exercise market power to adversely affect competition in that market.

5.323 The Council concludes that extant barriers to entry in the upstream gas production and sales market in the Varanus Island hub are not so high as to prevent the occurrence of a promotion of competition in that market as a result of coverage and that, as there are a number of joint ventures and other parties with ownership interests in gas reserves in the Varanus Island hub, coverage would be likely to promote competition in the upstream gas production and sales market in the absence of the State Agreement.

5.324 In reaching this conclusion, the Council has had regard to the following submission by GGT, in its response to the Draft Recommendation:

> *As it currently stands, the Draft Recommendation concludes that coverage, despite any derogation of the majority of the GGP's capacity associated with the effect of the State Agreement, will promote competition in the upstream market, which it confines to the Varanus Island hub. This is despite acknowledgement by the NCC of the monopoly operating, sales*

and marketing position enjoyed by Apache Energy Ltd in regard to the upstream market as defined by the NCC. However, the Draft Recommendation gives no consideration as to how competition will be promoted in the upstream market (as defined) when it is subject to effective monopoly operation and control (as defined by the NCC).

5.325 The Council observes, however, that competition is not a static concept, but a process. The state of competition observed by GGT to exist in the upstream gas production and sales market presents the opportunity for a promotion of competition as a result of coverage, if coverage were to create the environment for new entry, precisely because at present the state of competition in the upstream gas production and sales market falls far short of effective competition. The Council notes that new entry does not, in actual fact, have to be fast in coming for such a promotion of competition to satisfy criterion (a).

5.326 Similarly, the Council does not consider that barriers to entry in the downstream electricity sales market are such as to prevent a promotion of competition following coverage in the absence of the State Agreement. Indeed, to the extent that SCE, WMC, GP and Newmont Power are potential suppliers to the downstream electricity sales market, coverage may make gas-fired generation more economic(by imposing an effective constraint on GGT's ability and incentive to engage in monopoly pricing) so facilitating competition in the downstream electricity sales market.

5.327 WMC describes this potential promotion of competition in the downstream electricity sales market as follows (in its response to the Draft Recommendation at p14):

For the reasons which the Council has demonstrated, GGT has market power which it is able to and has the incentive to exercise by raising prices for the services provided by the GGP to monopoly levels. In these circumstances, alternative suppliers of electricity will be relieved of competitive pressure to bring their prices close to cost. Coverage will discipline pricing on the GGP which will in turn lead to competitive response from Western Power in electricity supplied via the SWIS. It will also generate competition between companies such as SCE, WMC, GP and Newmont Power for the supply of electricity to third parties.

5.328 The Council has no evidence to suggest that there are significant barriers to entry in the downstream gas sales market.

5.329 Thus, while AlintaGas and mining ventures located downstream from the GGP acquire gas in the upstream market for gas production and sales, there is the potential for coverage to promote the development of the downstream gas sales market in which the bundled product of delivered gas is supplied. As submitted by WMC in its response to the Draft Recommendation (at p13):

> *There does not appear to be any significant downstream market. The scope for gas traders to participate in the upstream market and to then generate actual transactions in a downstream market by providing a bundled product of delivered gas is heavily dependent upon secure terms of access to the pipeline. The product of delivered gas is heavily dependent upon secure terms of access to the pipeline. The absence of a dynamic market tends to suggest the ability on the part of the GGP to exercise market power. If one looks at the variability in tariff levels as described in table 4 of appendix C to the Draft Recommendation, one can see the difficulty which a gas wholesaler would encounter in offering a bundled service product. Coverage under the Code would provide secure terms of access with certainty as to both price and non-price terms. This, in turn, is likely to generate an active wholesale market and increase demand for gas.*

5.330 WMC continues (at pp13-14):

> *This is a market in which companies who acquire gas in the upstream market on-sell that gas, presumably at a delivered location, along the route of the GGP. The potential for these transactions is clear. The extent to which they currently occur is somewhat unknown. The Council in its Draft Recommendation suggests that the market currently has actual transactions because there are users of gas who are not shippers of gas on the GGP. It is a market in which there could be aggregators or wholesalers who put together a bundled product of transmission services plus gas. The ability for this market to develop depends significantly upon the terms and conditions on which access is available to the pipeline. Again, it is both price and non-price terms that are significant in this regard. It is reasonable to conclude that the absence of coverage would be a significant impediment to the development of this market.*

5.331 Despite this, GGT contends in its response to the Draft Recommendation that there can be no promotion of competition in this downstream gas sales market as a result of coverage, as the market is dominated by a small number of participants locked into long term contracts.

If in fact such a market for gas as described in the Draft Recommendation does exist, then it would appear to be dominated by a small number of participants, each holding significant market power over the consumer they are supplying. In this regard such a market can best be described as being monopolistic at each discrete power station location. In fact, the market is entirely bound up in long term contracts between parties having significant bilateral power. Quite how coverage is envisaged to promote competition is not made clear in the Draft Recommendation.

5.332 The Council reiterates its comments in paragraph 5.325 above. Competition is not a static concept, but a process. The state of competition observed by GGT to exist in the downstream gas sales market presents the opportunity for a significant promotion of competition as a result of coverage, if coverage were to create the environment for new entry. The Council notes that this new entry does not have to be fast in coming for such a promotion of competition to satisfy criterion (a).

5.333 AlintaGas has an exclusive distribution franchise in Kalgoorlie. This franchise limits other companies from building distribution pipelines in the area covered by the AlintaGas franchise. The franchise does not prevent new retailers entering the Kalgoorlie market, though they would be required to negotiate access to AlintaGas' distribution network. As this network is currently uncovered, a potentially competing retailer would need to reach a commercial arrangement or seek coverage of the distribution network under the National Gas Code. While this would involve costs, the Council does not consider it constitutes prohibitive barriers to entry in the downstream gas retail market.

5.334 The Council has had regard to the following submission by GGT in its response to the Draft Recommendation:

The Draft Recommendation also gives no consideration to the manner in which competition might be promoted in a market that it acknowledges is subject to the monopoly franchise of a retail distribution network which is not currently subject to the Code. In fact, the NCC dismisses the barriers to new entry that this monopoly franchise represents. The time and expense involved in seeking coverage and the preparation and approval of a subsequent access arrangement are also dismissed. Given the significance of the transaction costs involved relative to the typical respective contract values, this conclusion is notably inconsistent with the NCC's consideration of the potential for a North West Shelf producer

(outside the Varanus Island hub) to obtain access to the GGP via a pipeline which is already covered by the Code (pending an approved Final Decision on its Access Arrangement) as well as being covered by an interim set of access terms, and for which the NCC itself has acknowledged the practicability of interconnection. This inconsistency is one of a number that brings into question the validity of the conclusions arrived at in the Draft Recommendation.

In any event, the retail market in the Kalgoorlie-Boulder area is clearly dominated by a retail gas and electricity duopoly. In this market, gas transportation cost represents approximately 15% of the delivered cost of gas to consumers, as GGT highlighted in its application. Under these circumstances, GGT requests the NCC give consideration to the limited scale and scope of potential for the Code to produce an outcome in this market in which "a likelihood of increased competition that is not trivial" might eventuate. (p. 10)

5.335 The Council again reiterates its comments at paragraph 5.325 above. The Council has recognised the time and expense involved in seeking coverage and the preparation and approval of a subsequent access arrangement in respect of the distribution network in Kalgoorlie. However, it is noted that the significance of the time and expense involved in seeking coverage and in the preparation and approval of a subsequent access arrangement will differ in an assessment of whether a promotion of competition will result from coverage and an assessment of whether two products are close substitutes in defining market boundaries. The Council recalls, from paragraph 5.195 and 5.213 above, that a promotion of competition involves improving the opportunities and environment for competition. It is not necessary that there will be, or will be within a particular period of time, an actual increase in competition for criterion (a) to be satisfied.

Conclusions on GGT's ability and incentive to exercise market power absent the State Agreement

5.336 In summary, the Council concludes in the absence of the State Agreement coverage would be likely to promote competition in:

(a) the upstream market for gas production and gas sales in the Varanus Island hub;

(b) the downstream gas sales market at locations within reasonable proximity to the GGP;

(c) the downstream retail gas sales market in the Kalgoorlie-Boulder area; and

(d) the downstream electricity sales market in the area in the vicinity of Kalgoorlie connected to the SWIS.

Is the State Agreement an effective constraint or will the National Gas Access Code further constrain GGT's market power?

5.337 The Council has concluded that GGT has the ability and incentive to exercise market power to adversely affect competition in the following dependent markets:

(a) the upstream market for gas production and gas sales in the Varanus Island hub;

(b) the downstream gas sales market at locations within reasonable proximity to the GGP;

(c) the downstream retail gas sales market in the Kalgoorlie-Boulder area; and

(d) the downstream electricity sales market in the area in the vicinity of Kalgoorlie connected to the SWIS.

5.338 In assessing whether coverage of the GGP under the National Gas Access Code will further promote competition relative to conditions under the State Agreement absent coverage, it is necessary to first consider whether the State Agreement is an effective constraint on GGT's ability and incentive to exercise market power.

5.339 If the State Agreement is not an effective constraint on GGT's ability and incentive to exercise market power, the Council must then consider whether the National Gas Access Code will be a more effective constraint on GGT than the State Agreement absent coverage.

5.340 As both the State Agreement and the National Gas Access Code will apply to the GGP in the future "with coverage", the inter-relationship between the two regulatory regimes must be considered. A question arises as to the scope for the National Gas

Access Code to regulate access to the GGP in the future "with coverage", given that the State Agreement continues to apply.

Is the State Agreement an effective constraint on GGT's ability and incentive to exercise market power?

5.341 GGT submitted that the State Agreement constrains any ability and incentive GGT may otherwise have to exercise its natural monopoly power in the dependent markets.

5.342 GGT argued that the State Agreement already establishes open and non-discriminatory third party access, such that the National Gas Access Code does not have any scope to further constrain GGT's ability to exercise market power or, in other words, to promote competition. GGT argued that:

> *Formal and effective Third Party Access to the GGP with published benchmark tariffs established on commercially fair and reasonable grounds, existed prior to the Code. This is explicitly laid out in the State Agreement to which GGT remains legally bound.*
>
> *The State Agreement specifically provides for rights of non-discriminatory third party access to spare and developable capacity, a basis for negotiation and pricing principles, as well as arbitration in the event of an access dispute arising. It should be noted however, that there have been to date no access disputes and no cases requiring arbitration under the pre-existing State Agreement regulatory regime.*
>
> *Therefore, GGT contends that it is entirely redundant to further impose the access conditions of the Code on the existing, regulated and commercially effective third party access obligations to which GGT is already contractually bound.*
>
> *It may be worth re-emphasising that whether or not the Code continues to apply, the GGP will continue to be subject to the contractual obligations associated with regulated third party access under the State Agreement. GGT is not contesting this.* (GGT 2003, pp. 29-30)

5.343 The *Trade Practices Act 1974* and clause 6 of the Competition Principles Agreement (CPA principles) together set out the criteria for determining whether third party access arrangements are effective. These criteria provide a relevant benchmark against which the Council can consider how effectively the State Agreement constrains GGT's ability and incentive to exercise market power.

5.344 The Council notes the following comments made by GGT:

> *Prior to the introduction of the Code under the Act, it may have been strictly necessary for the NCC to consider whether the GGP State Agreement conformed with the Competition Principles Agreement criteria in accordance with section 44M of the TPA. This would have allowed a decision to be made as to whether the regulatory regime would have been certified as being an "effective access regime" according to the TPA. ..*
>
> *However the Western Australian access regime, including as it does the preservation of the certain pre-existing contractual rights and obligations under the GGP State Agreement, has already been certified as "effective" for the purposes of the TPA. That GGT should seek to apply for revocation of coverage under the Code is entirely consistent with, and accommodated within the terms of the Code and the State's effective access regime.*
>
> …
>
> *Furthermore, the criteria for certification of an effective regulatory access regime under the TPA form no part of the coverage tests under section 1.9 of the Code. If they did so, an obvious and intolerable circularity of logic would exist which would completely negate the effect and intention of section 1.9 of the Code.*
>
> *Clearly, this application for revocation is made entirely within the auspices of the Code, as implemented and certified as an effective access regime within Western Australia. The question of whether or not the State Agreement would have been considered to be an "effective" regime for the purposes of section 44 of the TPA, in the absence of the Code, does not arise.* (GGT 2003, pp. 12-14)

5.345 The Council also notes the following further submissions on the relevance of the CPA principles for an effective access regime to the present matter made by GGT in its response to the Draft Recommendation:

> *Despite acknowledging that it is not necessary, for the purposes of a revocation application, to consider whether or not the State Agreement third party access regime is an "effective access regime" for the purposes of part IIIA of the Trade Practices Act (TPA), the NCC has effectively limited its analysis of the State Agreement to that issue.*
>
> …
>
> *In GGT's view, the NCC's focus on whether or not the State Agreement regime constitutes an effective regime for the*

purposes of part IIIA of the TPA has resulted in flawed or unsubstantiated conclusions as to the need for coverage.

5.346 The Council acknowledges that the criterion (a) assessment does not require an assessment of whether the State Agreement is an "effective access regime" for the purposes of certification of the regime, or the declaration criteria, under Part IIIA of the TPA. Further, the Council acknowledges that the coverage criteria set out in clause 1.9 of the National Gas Access Code, unlike the criteria for declaration under Part IIIA of the TPA, do not require consideration of whether a pre-existing access regime, here the State Agreement, is an "effective access regime".

5.347 Despite GGT's contention that an assessment of the State Agreement against the CPA Principles is not of relevance to the criterion (a) assessment for the purposes of its application, GGT nonetheless went on to argue:

> *[A] comparison of the criteria for the effectiveness of a regime in compliance with the Competition Principles Agreement (Appendix 3) indicates that no substantial improvement in compliance with those principles, if any, arises from the imposition of the Code.* (GGT 2003, p. 12)

5.348 The CPA Principles establish commercial negotiation as the means for determining access outcomes. In order to be an effective constraint on a service provider's ability and incentive to exercise market power in a dependent market, however, an access regime requires a credible framework to facilitate access and competition.

5.349 The CPA Principles recognise the need for regulatory measures that underpin commercial negotiation where a service provider has substantial market power. In particular, the CPA Principles require that an effective access regime establish a legal right for parties to negotiate access and an enforcement process to support this right. They require an access regime to establish an appropriate balance, in the circumstances, between commercial negotiation and regulatory intervention to facilitate credible access negotiations.

5.350 The Council does not consider that the State Agreement establishes a legal right for third parties to negotiate access or an enforcement process to support this right. Further, the Council considers that the State Agreement does not strike an appropriate balance between commercial negotiation and regulatory intervention having regard to GGT's market power and the surrounding circumstances, such as would facilitate credible access negotiations.

5.351 The Council does not consider that the State Agreement Act gives the State Agreement the force of law required for it to confer any legally enforceable rights on a third party.

5.352 In this regard, the Council observes that s4 of the State Agreement Act, which ratifies the State Agreement, provides as follows:

> *(1) The Agreement is ratified.*
>
> *(2) The implementation of the Agreement is authorized.*
>
> *(3) Without limiting or otherwise affecting the application of the* Government Agreements Act 1979*, the Agreement operates and takes effect despite any other Act or law.*

5.353 The Council concludes that the intent of s4 of the State Agreement Act was not to provide the State Agreement with the force of law. Rather, the State Agreement is intended to operate as a contract between the State and the original Joint Venturers or a subsequent owner of the GGP, and its ratification by the State Agreement Act is intended to confer precedence to the State Agreement over any other Act or law.

5.354 The Council notes the comments made by GGT in relation to clauses 6(4)(a), 6(4)(b) and 6(4)(c), in support of its contention that the State Agreement complies with the CPA Principles. GGT, in effect, contended that clauses 20(8) and 20(9) of the State Agreement establish a legal right for third parties to negotiate access to the GGP and that clauses 20(9) and 20(1) of the State Agreement together establish an enforcement process to support that right. (GGT 2003, Appendix 3)

5.355 However, the Council considers that clauses 20(8) and 20(9) confer a legal right on the Minister, which he may exercise at his discretion, to require GGT to provide information to him on the matter and to determine reasonable terms and conditions for the provision of access to the third party. It does not confer a legally enforceable right of access on third party access seekers.

5.356 The Council notes the comments made by GGT that third parties have administrative law relief available to them in the event that the Minister acted contrary to law in making a decision under clause 20(9):

> *The Minister therefore has ample powers to assist third parties where the joint venturers are not behaving consistently with the terms of the State Agreement or the tariff setting principles. The*

> *fact that there is no further appeal rights for a third party is not unusual, and would apply equally to the joint venturers if they were dissatisfied with the Minister's decision. In either case, the aggrieved party would still be able to seek relief from the Supreme Court if the Minister has acted contrary to law.* (GGT, Summary Response to Public Submissions, p. 12)

5.357 However, any rights to administrative law relief from the Supreme Court that a third party may possess in the event that the Minister exercised its discretion under clause 20(9) in a manner contrary to law, do not equate to a right of access to the GGP.

5.358 Further, the Council does not consider that the State Agreement establishes a framework that facilitates credible access negotiations by GGP and third parties.

5.359 The Council considers that a regime that facilitates effective access negotiations must establish a framework that addresses information and market power asymmetries.

5.360 In considering whether an access regime provides appropriate guidance to market participants, the Council considers that the guidance should be independent, and developed through open and transparent processes that allow stakeholders to participate and provide stakeholders with reliable information to inform their views. Regulatory processes should be derived from legislative underpinnings, rather than applied on an *ad hoc* bases, and they should be clearly defined and made publicly available, to allay concerns of bias or perceptions of agreements made 'behind closed doors'.

5.361 Independent regulatory guidance can be achieved by vesting regulatory powers in a single independent regulator, vested with appropriate powers. The Council considers that a government Minister or Department does not constitute such an independent regulator, given the potential for conflicts of interest.

5.362 Transparency is critical in engendering market confidence in regulatory guidance to facilitate effective access negotiations. Public consultation with high levels of disclosure is an appropriate way of making regulatory processes transparent.

5.363 With respect to the regime for third party access purportedly established by the State Agreement, the Council observes that:

(a) clause 20 of the State Agreement does not establish a process through which third party access seekers can seek information to effectively negotiate terms of access;

(b) the tariff setting principles, with which tariffs negotiated by GGT for the provision of access to the GGP must be consistent, are approved by the Minister under clause 22 of the State Agreement. It is for GGT to establish and maintain an "indicative tariff schedule" based on the tariff setting principles approved by the Minister from time to time;

(c) if the State considers that any approved tariff setting principles should be varied as a result of altered circumstances, then the Minister has a right under clause 22(2) to consult with GGT and require it to negotiate in good faith to address those altered circumstances, but does not have a right to any remedy or to submit the matter to arbitration; and

(d) under clause 22, GGT must make available the "indicative tariff schedule" and the approved tariff setting principles to third parties that have a genuine interest in negotiating for the transmission of gas through the GGP.

5.364 The Council does not consider that the State Agreement establishes an independent and transparent regulatory process for guidance on the appropriate access prices or price boundaries. In particular:

(a) the Minister is not an independent regulator and thus the regulatory process established by the State Agreement for guidance on the appropriate access prices or price boundaries for access to the GGP is not an independent process;

(b) the regulatory process established by the State Agreement provides for the approval of tariff setting principles but it does not provide for quantitative regulatory guidance on the appropriate access prices or for the regulatory determination or approval of appropriate price boundaries; and

(c) the State Agreement does not establish an independent and transparent process, including stakeholder consultation, for the approval of the tariff setting principles.

5.365 A conclusion that the State Agreement regime does not provide for adequate information disclosure to third parties or establish adequate transparency in relation to tariff setting is supported by submissions received by the Council from interested parties.

5.366 The Council considers that a regime that is effective in constraining a service provider's ability and incentive to exercise market power must have credible enforcement mechanisms. The Council considers that it may be appropriate for some provisions to be enforceable through arbitration or through the regulator.

5.367 As discussed above, the process established for resolution of an access dispute between a third party and GGT under the State Agreement is set out in clause 20. The Minister has a discretion to make a determination on the reasonable terms and conditions for third party access in the event of an access dispute, including the determination of tariffs which are consistent with the tariff setting principles approved under clause 22.

5.368 However, the Council considers that the enforcement process established by clause 20 is not a credible enforcement mechanism as:

(a) it is subject to the exercise of a discretion by Minister;

(b) the Minister is not an independent body;

(c) the State Agreement does not require that the Minister follow an open and transparent process, involving stakeholder consultation, in resolving an access dispute; and

(d) the State Agreement does not provide for penalties payable by GGT in respect of non-compliance by GGT with a determination made by the Minister under clause 20(9). Rather, clause 20(10) imposes an obligation on GGT to comply with any reasonable determination made by the Minister and, thus, the State may *at its discretion* terminate the State Agreement in the event of non-compliance.

5.369 Similarly, the Council observes that there are no penalties for non-compliance in the event that GGT breaches its obligations under clause 20(1) and (2) of the State Agreement Rather, the State may at its discretion terminate the State Agreement in the event of non-compliance.

5.370 The Council also notes that the arbitration process established by clause 37 of the State Agreement is available in respect of a Minister's determination of terms and conditions for access under clause 20(10). However, the arbitration process can only be accessed by GGT. Further, the arbitration process is for the settlement of disputes between the parties to the State Agreement only and, as such, third parties do not have a right to participate in an arbitration process in respect of a Minister's determination of third party access terms and conditions.

5.371 The Council concludes that the State Agreement is not an effective constraint on the service provider's exercise of market power. While the Council acknowledges that the State Agreement may impose some degree of constraint on GGT's ability and incentive to exercise market power, the Council concludes that any constraint imposed by the State Agreement is not sufficient to effectively constrain GGT's ability and incentive to exercise market power.

5.372 In addition, as discussed at paragraph 5.209, the present competitive conditions and market outcomes are a guide to likely conditions and outcomes in the future "without coverage". As such, the current actual pricing outcomes provide a guide to those likely under the State Agreement absent coverage. Thus, evidence of monopoly pricing in the current actual pricing outcomes is both:

(a) evidence that the State Agreement is not effective in constraining GGT's ability and incentive to engage in monopoly pricing; and

(b) evidence that GGT is currently engaging in monopoly pricing despite the application of the State Agreement to the GGP.

5.373 Thus, current actual GGT tariffs are evidence that GGT has the ability and incentive to engage in monopoly pricing and is currently engaging in monopoly pricing despite the application of the State Agreement to the GGP, which monopoly pricing would be/is likely to adversely affect competition in the dependent markets.

5.374 Therefore, the Council concludes that the State Agreement is not an effective constraint on GGT's ability and incentive to exercise market power.

5.375 GGT contended that "there have been no access disputes and no cases requiring arbitration under the pre-existing State Agreement

regulatory regime" (GGT 2003, p. 30). However, the Council considers that this may indicate a lack of confidence in the regulatory process established by the State Agreement, rather than be evidence of the State Agreement effectively constraining GGT's ability and incentive to exercise market power in the dependent markets. In any event, the Council understands that OMG Cawse has recently advised the Minister that it has not been able to reach agreement with GGT on the terms and conditions for access to the GGP in accordance with clause 20 of the State Agreement, and requested the Minister make a determination on the terms and conditions for access by it to the GGP.

5.376 In reaching the conclusions discussed above, the Council has had regard to the following submissions made by GGT in relation to the substantively similar conclusions reached by the Council in the Draft Recommendation:

> *[T]he NCC has focussed on whether or not the State Agreement establishes an enforceable right of access for third parties. The NCC concludes that there is no enforceable right of access, and effectively dismisses the potentially significant powers of the Minister to intervene to resolve access disputes.*
>
> *This approach by the NCC ignores the outstanding achievements of the GGP in the market since its construction in 1996, all of which have been achieved under the effective administration of the relevant Minister. There is no evidence referred to in the Draft Recommendation to support any conclusion that the Minister's role has been ineffective for the purpose of ensuring third party access to the GGP on a non-discriminatory basis and on fair and reasonable terms. In particular, there is no evidence to support the NCC's conclusion (at paragraph 5.299 [paragraph 5.375 above] that the lack of access disputes or cases requiring arbitration under the State Agreement regime indicates "a lack of confidence in the regulatory process established by the State Agreement". (p.2)*

5.377 In the absence of publicly available information on the effectiveness, or otherwise, of the Minister's ability to intervene and resolve access disputes under the State Agreement, the Council can only take into account the legislative framework. The Council reiterates its conclusion that the State Agreement does not confer any legally enforceable access rights on a third party.

Will the National Gas Access Code further constrain GGT's ability and incentive to exercise market power?

5.378 As the WA Gas Pipelines Access Law has been certified as an "effective access regime" by reference to the CPA Principles, the Council concludes that the National Gas Access Code would be an effective constraint on GGT's ability and incentive to exercise market power if the National Gas Access Code were to have full force and effect in relation to the GGP in the event the GGP was a covered pipeline. Accordingly, the critical determinant of whether the National Gas Access Code is a more effective constraint on GGT's ability and incentive to exercise market power is the scope for the National Gas Access Code to operate in respect of the GGP in the future "with coverage", given that the State Agreement continues to apply "with coverage".

5.379 Section 97 of the WA Gas Access Act purports to exhaustively address the provisions of the State Agreement that are to be preserved following the commencement of operation of the National Gas Access Code.

5.380 By implication, s97 provides that, with the exception of the provisions of the State Agreement preserved therein, the National Gas Access Code is to take effect despite any inconsistency between the National Gas Access Code and the provisions of the State Agreement. There is an apparent inconsistency between s97 of the WA Gas Access Act and s4 of the State Agreement Act, which provides that the State Agreement "operates and takes effect despite any other Act or law". To the extent of this inconsistency, the Council concludes that s97 of the WA Gas Access Act prevails, by reason of the principle of statutory interpretation that to the extent of any inconsistency between the provision of a later Act and an earlier Act, the later in time shall prevail: *Goodwin v Phillips* (1908) 7 CLR 1.

5.381 The Council concludes that the National Gas Access Code shall have full force and effect in respect of the GGP, subject to the operation of those provisions of the State Agreement preserved by s97. As noted by GGT in its application:

> *Consequently the GGP can be viewed as being subject to dual regulatory regimes, with the more recent regime preserving certain provisions of the former regime.* (GGT 2003, p. 11)

5.382 The Council observes, however, that the provisions of the State Agreement appear nonetheless to continue to have force and effect between the State and GGT, as provisions of a contract between them.

5.383 Section 97(4) of the State Agreement purports to preserve the operation of clause 21(3) of the State Agreement. Clause 21(3) provides that the National Gas Access Code will not apply to the GGP to the extent that the Joint Venturers can demonstrate that the Code has or is likely to have a "material adverse effect on the legitimate business interests" of the Joint Venturers. It reads as follows:

> *The uniform laws and subsidiary legislation referred to in subclause (2) [i.e. uniform laws or subsidiary legislation promulgated for petroleum and gas pipeline operation in Western Australia] shall not have effect to the extent that the Joint Venturers can demonstrate that the uniform laws or subsidiary legislation there referred to have or are likely to have a material adverse effect on the legitimate business interests of the Joint Venturers but in any event, insofar as any such uniform laws or subsidiary legislation may purport to apply to the Initial Committed Capacity, such of those uniform laws or that subsidiary legislation shall only apply to the extent that the Initial Committed Capacity is, from time to time, unutilised.*

5.384 Section 97(4) of the WA Gas Access Act expressly provides that the references to "uniform laws and subsidiary legislation" and "uniform laws or subsidiary legislation" in clause 21(3) include a reference to the WA Gas Pipelines Access Law. Section 97(4) provides:

> *The references in subclause (3) of clause 21 of the ratified Agreement as in force immediately before the commencement of section 9 of this Act to "uniform laws or subsidiary legislation" and to "uniform laws and subsidiary legislation" include the provisions of the Gas Pipelines Access (Western Australia) Law, and nothing in that Law or in this section is to be taken to affect the operation of that subclause.*

5.385 Section 97(6) of the WA Gas Access Act defines 'ratified Agreement' for the purposes of s97 by reference to the meaning of 'the Agreement' in the State Agreement Act, which is in turn defined to mean the State Agreement.

5.386 Section 97(4) of the WA Gas Access Act, in effect, provides that the WA Gas Pipelines Access Law, which includes the National Gas

Access Code, is to have full force and effect in relation to the GGP, subject to the derogations set out in clause 21(3) of the State Agreement. That is, the WA Gas Pipelines Access Law is to have full force and effect in respect of the GGP, subject to"

(a) a derogation to operation of the National Gas Access Code in respect of the Initial Committed Capacity of the GGP, except to the extent that the Initial Committed Capacity is unutilised from time to time; and

(b) a derogation to operation of the National Gas Access Code to the extent that GGT is able to demonstrate that the Code will have or is likely to have a material adverse effect on its legitimate business interests.

5.387 With respect to the first derogation from the operation of the National Gas Access Code, "Initial Committed Capacity" is defined in clause 8(3) of the State Agreement to mean:

> *The aggregate of the binding commitments procured under subclause (2) for terms of 10 years or more and the capacity reserved by each of the Joint Venturers under any agreements of the kind referred to in subclause (1)…*

5.388 In other words, the "Initial Committed Capacity" of the GGP includes:

(a) capacity the original Joint Venturers reserved for the use of themselves and associated entities pursuant to contractual arrangements entered into prior to construction of the GGP; and

(b) capacity purchased by third parties in response to the invitation made by the Joint Venturers prior to the construction of the GGP in accordance with clause 8(2)(b) (which third parties are referred to in the State Agreement as "Initial Customers"), pursuant to contractual arrangements for terms of 10 years or more entered into.

5.389 Ventnor detailed the Initial Committed Capacity and the other third party contracted capacity of the GGP in Table 4 of its Report, titled "GGP- Contracted Gas Supply" (Ventnor 2003, p. 19):

5.390 With respect to the second derogation from the operation of the National Gas Access Code by clause 21(3) of the State Agreement, the Council observes that a derogation from the operation of the

National Gas Access Code occurs only where, and only to the extent that, GGT is able to demonstrate that the Code has or is likely to have a material adverse effect on its legitimate business interests. Accordingly, an initial question arises as to the likelihood of such a derogation operating in respect of the National Gas Access Code and the likely scope of such a derogation (if any) in the "future with coverage".

5.391 GGT contended in its application that the "with coverage" counterfactual must incorporate limitations on the operation of the National Gas Access Code arising from the prospect of a clause 21(3) derogation by reference to GGT's legitimate business interests:

> *In regard to the "future with coverage", the effects of clause 21(3) in respect to excluding the utilised portion of the original "Initial Committed Capacity" of the pipeline, as well as the exclusion of any aspect of the Code which can subsequently be demonstrated to have a material adverse effect upon the legitimate business interests of the pipeline owners, are relevant considerations. If any benefits to any party from coverage can be identified (which GGT contends is not the case), particularly if such benefits arise at the expense of GGT, then appropriate consideration would need to be given to the prospect of clause 21(3) significantly diluting the reach of such benefits. (*GGT 2003, p. 19)

5.392 However, the Council notes the comments of the Tribunal in *Re Queensland Independent Wholesalers Limited*[15] on the "future with-and-without" test in the context of reviewing an ACCC authorisation determination, referred to by WMC:

> *That does not mean that we prophesy the future. As QCMA [Re QCMA v Defiance Holdings Ltd (1976) ATPR 40-012] expressed the point (at 183 and 17,243):*
>
> > *"We are to be concerned with probable effects rather than with possible or speculative effects. Yet we accept the view that the probabilities with which we are concerned are commercial or economic likelihoods which may not be susceptible of formal proof. We are required to look into the future but we can be concerned only with the foreseeable future as it appears on the basis of evidence and argument relating to the particular application.* (WMC, Submission 2, pp. 1-2)

[15] (1995) 17 ATPR 41-438

5.393 The Council observes that clause 21(3) of the State Agreement establishes a presumption that the National Gas Access Code will have full force and effect in relation to the GGP, subject only to the derogation with respect to Initial Committed Capacity. Further, the Council considers that clause 21(3) evidences a presumption that the operation of the National Gas Access Code in respect of the GGP will not have a material adverse effect on the legitimate business interests of GGT.

5.394 The Council notes that a derogation of this type from the National Gas Access Code under clause 21(3) will only operate in respect of the GGP where GGT makes an application to the party empowered to assess whether the Code has a material adverse effect on GGT's legitimate business interests under clause 21(3), that party makes a determination and that determination provides that the National Gas Access Code is not to have effect in some respect.

5.395 WMC explains the likely operation of the second derogation as:

> *[Clause 21(3)] enables the Minister to determine the extent to which the Code will have effect if certain matters are established. That determination by the Minister is not one which enables him to modify the operation of the Code, only to limit its operation. For example, it would not, in WMC's submission, be permissible for the Minister to make a direction as to the initial capital base which should be taken into account for the purposes of the Code or to determine the rate of return which should be allowed. Rather, determining the extent to which the Code shall not have effect would enable the Minister to make a decision, for example, that the Code did not operate for a specified period of time or that it did not apply to particular categories of customers.* (WMC, Submission 2, p. 3)

5.396 There is considerable uncertainty regarding the process to be followed under clause 21(3) of the State Agreement by GGT in seeking a derogation from the National Gas Access Code by reference to a material adverse effect on its legitimate business interests. For example, it has been suggested in submissions from, and discussions with, interested parties that the Minister, the Energy Minister and / or the Western Australian Supreme Court may have a role in determining the extent to which the National Gas Access Code will or is likely to have a material adverse effect on GGT's legitimate business interests and the scope of any resultant derogation from the Code, on an application by GGT.

5.397 Further, the scope for the National Gas Access Code to operate in respect of the GGP hinges on the meaning of the phrase "a material adverse effect on the legitimate business interests of [GGT]" in clause 21(3). The Council observes that there is considerable uncertainty regarding the meaning of the phrase "legitimate business interests" in clause 21(3) the State Agreement.

5.398 This phrase is defined in clause 1 of the State Agreement to mean:

> *…the legitimate business interests of the Joint Venturers' as owners and operators of the Pipeline on the basis that they constitute an independent pipeline owner offering transmission services without any bundling of those services with other services such as the purchase, sale, storage or supply of gas (beyond short term balancing between receipts and deliveries).*

5.399 As GGT is not vertically integrated across other functionally related activities such as the purchase, sale, storage or supply of gas, the definition of "legitimate business interests" in the State Agreement sheds little light on the meaning of that term in the current circumstances. The Council notes that the Western Australian Supreme Court made the following *obiter* remarks in relation to the meaning of the term "legitimate business interests" where it appears in s2.24(a) of the National Gas Access Code in the Epic Energy decision:

> *The service provider's legitimate business interests and investment in the pipeline (s2.24(a)) would appear directly relevant to the objective that access rights by third parties be on conditions that are fair and reasonable for the owners and operators of a pipeline. The investment in this case is relevantly the full purchase price of $2.407 billion, (some other items are also relied on). Within the meaning of s2.24(a) both that investment and the legitimate business interests of Epic might properly extend to the recovery of that $2.407 billion, at least over the expected life or operation of the pipeline, together with an appropriate return on investment. … The business interests of Epic might well extend much further than this, but it is unnecessary to explore those matters. There was a submission from Alinta that in the context of this Code the recovery of monopoly prices or tariffs, above the level of economically efficient prices, should not be seen as "legitimate". I find no support in the Act or the Code for such a view. While some expressions of economic theory and passages in the Hilmer Report would suggest that it is against the interests of society as a whole, at least in some situations, for a monopolist to be able to recover monopoly prices or exercise monopoly power in the market, that does not make the enjoyment by a monopolist of a monopoly an illegitimate business interest. On the other hand*

> *there may be much scope for the notion of illegitimate, as opposed to legitimate, business interests in the context of arrangements which, for example, constitute a contravention of the Trade Practices Act or involve manipulations of the prices paid for assets with a view to the avoidance of revenue charges. There is no basis shown, however, upon which the interests of Epic in recovering the actual investment it made in the DBNGP when it acquired it from the State, together with a reasonable return on that investment, should be categorised as other than a legitimate business interest for the purposes of s2.24(a).* (Epic Energy decision, paragraph 130)

5.400 It remains to be seen, however, whether the term "legitimate business interests" in clause 21(3) will be given a meaning consistent with the comments made in relation to that term in the context of s2.24(a) of the National Gas Access Code in the Epic Energy decision.

5.401 The Council notes that any assessment of whether the National Gas Access Code has a material adverse effect on GGT's legitimate business interests following a subsequent application by GGT under clause 21(3) would likely require consideration of the Regulator's Final Decision on the GGP Access Arrangement.

5.402 Further, the Council observes that there is uncertainty as to the benchmark scenario against which the effects of the National Gas Access Code on GGT's legitimate business interests fall to be assessed under clause 21(3). For example, should the effects of the National Gas Access Code on GGT's legitimate business interests be assessed against a benchmark in which the State Agreement operates or should the State Agreement be disregarded in assessing the effects of the Code on GGT's legitimate business interests.

5.403 The Council acknowledges that the "future with coverage" involves a possibility of GGT making an application for a derogation from the National Gas Access Code by reference to a purported material adverse effect to its legitimate business interests and that the party empowered to determine whether the Code has such an effect may make a determination under clause 21(3) derogating from the National Gas Access Code. However, any conclusion that the Council could reach with respect to the operation of the clause 21(3) derogation from the National Gas Access Code would necessarily be speculative, in view of the considerable uncertainty in relation to:

(a) the process under clause 21(3);

(b) the meaning of the term "legitimate business interests";

(c) the circumstances in which provisions of the National Gas Access Code could be said to have a material adverse effect on GGT's legitimate business interests; and

(d) the Regulator's Final Decision on the GGP Access Arrangement.

5.404 This uncertainty regarding the operation of the clause 21(3) derogation from the National Gas Access Code is illustrated by the proceedings brought by WMC in the Full Court of the Supreme Court of Western Australia seeking a writ of prohibition against the Regulator to prevent the Regulator from considering or determining the operation of clause 21(3) of the State Agreement, and the resultant effect of the National Gas Access Code in relation to the GGP. WMC's submissions to the Court in those proceedings, described by WMC in its response to the Draft Recommendation as follows, can be contrasted with the views of GGT and other interested parties in relation to the operation of clause 21(3):

> *WMC submitted that the plain intention of the scheme was that uniform laws could be displaced, in relation to the GGP, for at least 2 years, by a statutory regime in the form of by-laws. By clauses 21(2) and 21(3), the intention was that a regime embodied in by-laws may be given further operation, suspending or modifying application of the new uniform laws to the GGP, for an appropriate period, if the owners demonstrated material adverse effect.*
>
> *On WMC's construction, clause 21(3) does not itself purport to confer a power to directly modify future statutory laws. It does not expressly identify the repository of such an exceptional power, nor the manner in which the power would be exercised (ie, how -- by what instrument or action -- a future state law would be modified by an unspecified person's or body's decision).*
>
> *WMC submitted that clauses 21(2) and 21(3) both appear to relate to the content of the power to make by-laws under section 5 of the* Goldfields Gas Pipeline Agreement Act *1994 and clause 21(1) of the State Agreement. On that construction of clause 21, it is the repository of the by-law making power (ie the Governor in Council, upon the recommendation of the Energy Minister) who may consider whether material adverse effect has been demonstrated and who may consider whether material adverse effect has been demonstrated [sic] and who may determine the extent (if any) to which the Code shall not apply to the GGP, under clause 21(3). Such a determination*

would be given effect by new or amended by-laws, which could always be overridden by a later law.

The owners of the GGP did not agree with WMC's submission on the construction of clause 21(3).

5.405 Further, for the above reasons, together with the uncertainty as to whether GGT will even seek a derogation from the National Gas Access Code pursuant to clause 21(3) of the State Agreement, the Council does not consider that such a determination derogating from the National Gas Access Code could be said to be a probable event at this time.

5.406 The Council concludes that having regard to the possibility of a derogation from the operation of the National Gas Access Code under clause 21(3) by reference to its effect on GGT's legitimate business interests in the "with coverage" counterfactual is not consistent with jurisprudence on the application of the "future with-and-without" test.

5.407 In applying the future with-and-without test in assessing criterion (a), the Council is permitted by the jurisprudence to have regard only to probable events, rather than with possible or speculative events. The likely scope of any future derogation from the National Gas Access Code under clause 21(3) of the State Agreement is a matter of speculation, and the future grant of such a derogation could not be said to be probable. Accordingly, the Council considers that it must disregard the possible future operation of clause 21(3) of the State Agreement in assessing the future with coverage. That is, the Council must assume the National Gas Access Code will have full force and effect in respect of the GGP, with the exception that the Code will not operate in respect of GGP's Initial Contracted Capacity.

5.408 The Council does not consider that the derogation from the operation of the National Gas Access Code in respect of GGP's Initial Contracted Capacity will prevent coverage from promoting competition in the upstream market for gas production and sales in the Varanus Island hub and the downstream electricity sales market in the area in the vicinity of Kalgoorlie connected to the SWIS.

5.409 The Council notes, again, that the "promotion of competition" test assesses whether coverage would make the dependent market more conducive to competitive behaviour and new entry. As the focus of

the criterion (a) assessment is new entry, the Council does not consider that a derogation from the National Gas Access Code in respect of GGP's Initial Contracted Capacity erodes the potential for coverage to promote competition.

5.410 Further, the Council understands from interested parties, including GGT that the Initial Customers referred to above in paragraph 5.388 receive the benefit of any regulated tariff determined by the Regulator under the terms of their contracts with GGT. Accordingly, the price of delivered gas for these customers is likely to decrease as a result of coverage and this price reduction would, in turn, be likely to result in a promotion of competition in the retail electricity market as gas fired electricity will likely become more economic and the upstream gas production and sales market as a result of increased downstream demand.

Conclusion on criterion (a)

5.411 In summary, the Council concludes that GGT has the ability and incentive to exercise market power by engaging in monopoly pricing. The Council further concludes that the State Agreement does not impose an effective constraint on GGT's ability and incentive to engage in monopoly pricing.

5.412 By contrast, the Council considers that the National Gas Access Code is likely to be an effective constraint on GGT's ability and incentive to engage in monopoly pricing and that, accordingly, continued coverage is likely to promote competition in:

(a) the upstream market for gas production and gas sales in the Varanus Island hub;

(b) the downstream gas sales market at locations within reasonable proximity to the GGP;

(c) the downstream retail gas sales market in the Kalgoorlie-Boulder area; and

(d) the downstream electricity sales market in the area in the vicinity of Kalgoorlie connected to the SWIS.

5.413 In particular the Council concludes that the introduction of an effective constraint on GGT's ability and incentive to engage in monopoly pricing is likely to result in a reduction of GGT's prices

and thus the cost of gas fired electricity which in turn is likely to result in an increase in the level of competition from SCE, WMC, GP and Newmont Power facing Western Power in that market.

6 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

6.1 This criterion reflects the criteria in:

(a) section 44G(2)(d) of the TPA, relating to declaration of a service for access under Part IIIA of the Act; and

(b) clause 6(3)(a)(iii) of the CPA relating to assessments of the effectiveness of a State or Territory access regime.

6.2 The rationale for this criterion is that the National Gas Access Code should not be applied to pipelines where access might pose an undue risk to human health or safety.

The application

6.3 GGT states that it "takes its responsibilities in regard to health and safety seriously and does not wish to compromise its own reputation in this respect by entering into dispute over criterion (c)" (GGT 2003, p. 78). However, GGT does note that some commentators consider that the National Gas Access Code involves an inherent degree of risk, due to the prospect of regulatory error and the imposition of unproven or flawed economic incentives (GGT 2003, p. 78). In its submission in response to Anaconda, GGT clarifies that it considers there to be a degree of inherent risk relating to human health or safety if tariffs are set too low (GGT, Response to Anaconda submission, p. 5).

Issues

6.4 The National Gas Access Code contemplates the provision of access to pipelines throughout Australia under the 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.

6.5 The Council notes GGT's comments on this matter, but does not consider that there is any evidence to suggest that the application of the National Gas Access Code to gas pipelines in general, or to the GGP in particular, would pose an undue risk to human health or safety. The Council notes further that coverage of a pipeline does not preclude the application of appropriate safety regulations, or to any safety issues raised in a particular case being addressed in terms and conditions of access.

6.6 Submissions from Newmont and WMC argue that criterion (c) is satisfied (Newmont, p. 45; WMC Submission 1, p. 50), while Anaconda states that the application makes no case that coverage will increase risks to human health or safety (Anaconda, p. 5).

Conclusion on criterion (c)

6.7 The Council considers that access (or increased access) can be safely provided to the services of the GGP, and its final recommendation is therefore that criterion (c) is met.

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

7.1 The Tribunal in the Duke EGP decision considered that:

> … *criterion (d) does not impose an additional positive requirement which can be used to call into question the results obtained by the application of pars (a), (b) and (c). Criterion (d) accepts the results derived from the application of the other criteria, but enquires whether there are any other matters which lead to the conclusion that coverage would be contrary to the public interest.* (Duke EGP decision, paragraph 145)

7.2 One matter of public interest is whether any benefits of coverage, such as cheaper prices and more efficient use of resources, are outweighed by regulatory or compliance costs. Other matters of public interest include environment considerations, regional development, and equity.

7.3 While no attempt to list public interest considerations can be exhaustive, matters which might be considered include the open-ended list of items in clause 1(3) of the CPA:

(a) ecologically sustainable development;

(b) social welfare and equity considerations, including community service obligations;

(c) government legislation and policies relating to matters such as occupational health and safety, industrial relations and access and equity;

(d) economic and regional development, including employment and investment growth;

(e) the interests of consumers generally or of a class of consumers;

(f) the competitiveness of Australian businesses; and

(g) the efficient allocation of resources.

7.4 Other relevant matters may include impending access regimes or arrangements, national developments and the desirability for consistency across access regimes, relevant historical matters and privacy.

7.5 The criterion's use of the double negative – requiring satisfaction that access "would not be contrary to the public interest" – indicates that it does not constitute an additional positive requirement for satisfaction that access would be in the public interest. Rather, the Council must be satisfied that the overall costs of coverage do not outweigh the benefits of coverage. The extent of these benefits depends on the likely effect of coverage on competition in related markets considered under criterion (a) and the resultant positive effects on economic efficiency identified under criterion (d).

The application

7.6 GGT argues that criterion (d) is not met for the GGP. GGT submits that coverage provides no additional rights of access for third party access seekers beyond those granted under the State Agreement, but introduces regulatory redundancy, investment uncertainty and additional costs (GGT 2003, p. 79). GGT puts forward three arguments to support this conclusion.

(a) The benefits of competition already exist. GGT argues that "competition in the relevant markets already exists and that the application of the National Gas Access Code in respect to the GGP will make no positive contribution to increasing that situation" (GGT 2003, p. 79).

(b) Increased regulatory costs and investment disincentives reduce asset life and the ability to compete or expand. GGT argues that coverage will tend to reduce expenditure capacity, and so decrease asset life (by limiting maintenance expenditure) and limit new capital investment (GGT 2003, pp. 80-82). GGT also argues that the capital expansion provisions in the National Gas Access Code may act to limit investment (GGT 2003, p. 82). Further, GGT notes that costs may arise from the dual application of the National Gas Access Code and the State Agreement, including as a result of litigation arising from differing interpretation of legislation and uncertainty for pipeline owners and users (GGT 2003, pp. 83-84).

(c) Coverage imperfectly substitutes and distorts already effective market forces. GGT argues that the GGP has introduced competition into the energy markets it services, and that regulation can distort investment decision-making (GGT 2003, p. 84). According to GGT, "the Code contributes no enhancements in fulfilling the objectives of the national access regime, over the terms of access and market conditions which already exist, and continues to exist, under the State Agreement Access Regime" (GGT 2003, p. 85).

Issues

7.7 The application and submissions raise a number of issues relating to the costs and benefits of coverage and the implications for the public interest. The application and submissions also put a range of views on the balance of those costs and benefits. Issues raised in the application and submissions may be summarised as follows.

(a) Coverage imposes direct and indirect costs on the service provider. The direct costs of coverage of the GGP include the cost of preparing access arrangements and of funding the regulator. Regulation of the pipeline under the combination of the National Gas Access Code and the State Agreement may also give rise to legal costs and uncertainty, the former relating primarily to determining which form of regulation applies to the pipeline in a given situation. Coverage may also constrain the ability of the GGP to compete and expand.

(b) Coverage may provide benefits to access seekers and the community more broadly. Coverage of the GGP may ensure that access seekers have the protection of an effective access regime, and promote competition. Other potential benefits include the application of an access regime that is uniform across jurisdictions, and the capturing of environmental benefits associated with the increased competitiveness of gas relative to other forms of energy. Coverage may also promote development of the region serviced by the GGP.

7.8 The Council considers these issues in more detail below.

Costs of coverage

Regulatory costs

7.9 Ordover and Lehr draw attention to the fact that regulation has costs and inefficiencies (Ordover & Lehr 2001, p. 24). The Council has consistently recognised this fact and in a number of previous coverage and revocation matters has considered whether the costs of coverage outweigh the benefits (for example, NCC 2000a). In making its current assessment, the Council has taken into account both the direct and indirect costs of regulation under the National Gas Access Code.

7.10 Direct costs of regulation might include the costs of preparing access arrangements; while indirect costs might include reduced incentives to invest in pipeline infrastructure or reduced incentives to innovate or provide flexible services.

7.11 The indirect costs of regulation may be lower in the context of the National Gas Access Code than for more prescriptive access regimes. As recognised by Ordover and Lehr (at p. 21), the pricing mechanisms within the National Gas Access Code lessen the standard concerns about inefficiencies that may result from regulatory pricing rigidities. This is because the National Gas Access Code does not restrict the ability of parties to negotiate away from regulated reference tariffs.

7.12 GGT argues that the costs of complying with the National Gas Access Code are substantial. GGT states that it has incurred approximately $2.3 million to date (excluding legal costs), with future costs expected to approach $300,000 per annum (GGT 2003, p. 83). GGT also notes that, in Western Australia, the full cost of maintaining OffGAR is passed on to service providers, who in turn pass this cost onto the market (GGT 2003, p. 83).

7.13 Newmont, by contrast, argues that the cost of regulation of the GGP under the National Gas Access Code is "reasonable given the benefits obtained from coverage, and is insignificant compared to the other costs associated with the GGP" (Newmont, p. 49). Newmont suggests that GGT's costs of compliance to date, including those related to GGT's application to the Supreme Court of Western Australia concerning OffGAR's draft decision on the Access Arrangement and this revocation application, are actually "a cost of attempting to avoid the application of the Code" (Newmont,

p. 46). Newmont suggests that GGT's projected ongoing costs of compliance with the National Gas Access Code are insignificant compared to the other costs associated with the GGP, which include $6.6 million for operating and maintenance costs and $4.7 million for management costs (Newmont, p. 47).

7.14 GGT argues that the existence of overlapping access regime obligations throws up issues of differential interpretation which "have resulted in huge costs to date and will continue to incur substantial costs into the future" (GGT 2003, p. 83). GGT also argues that the dual application of the access regimes has indirect costs. In particular, the delay in finalising the GGP's Access Arrangement "makes it impossible for both the pipeline owners and existing or prospective shippers to plan with any confidence" (GGT 2003, p. 84).

7.15 Similarly, APIA argues that revocation would be in the public interest because:

> *… it will eliminate the current overlap between the State Agreement and the Code, provides an outcome that preserves the certainty that the State Agreement was intended to bestow and reduces the likelihood of protracted legal action which would otherwise be needed to clarify the interpretation of interactions between the provisions of the Code and the State Agreement. (APIA, p. 2).*

7.16 Newmont, by contrast, alleges that "GGT has significantly complicated the application of the Code to the GGP by taking a strained and obscure interpretation of provisions of the State Agreement, necessitating significant legal cost and delay to all interested parties" (Newmont, p. 47). Anaconda also notes that the legal costs referred to by GGT "have typically arisen as a result of legal action initiated by GGT" (Anaconda, p. 38). GGT has responded that these legal actions "are a consequence of GGT's efforts to protect its contractual rights under the State Agreement" (GGT, Submission in response to Anaconda, p. 6).

7.17 Alinta considers that the costs and benefits of the GGP being regulated under both the State Agreement and the National Gas Access Code is a legitimate issue. However, it submits that an alternative to revocation of coverage would be for the State Agreement to be revoked, leaving the National Gas Access Code as the single access regime applying to the GGP. According to Alinta, "there is an advantage for an asset user/operator to be exposed to a common access regime and indeed this consistency argument is the

fundamental reason underlying the national basis of the [National Gas Access Code]" (Alinta, p. 1). This issue is discussed further under the benefits of coverage.

Impact on investment

7.18 GGT argues that coverage of the GGP may also impact negatively on investment. In the application, GGT submits that coverage under the National Gas Access Code has been demonstrated to involve increased regulatory expense, notional capital write downs in value, substandard rates of return and incentives to reduce expenditure. GGT submits that reduced expenditure capacity resulting from these factors will tend to decrease asset life (by limiting maintenance expenditure) and limit new capital investment (GGT 2003, pp. 80-82).

7.19 GGT also argues that provisions in the National Gas Access Code which pass the cost of capacity expansions to users rather than service providers (compared with the State Agreement) may also "preclude any attempt to capture the economies of scale associated with taking a longer term view of capacity demand" (GGT 2003, p. 82). GGT also argues that these provisions advantage existing over new customers (GGT, Submission in response to WMC, p. 11).

7.20 Submissions provide differing views on this issue. APIA suggests, without elaborating, that continued coverage would constrain the ability of the GGP to compete and expand (APIA, p. 2). WMC submits, in relation to increased regulatory costs and investment disincentives, that the implication in the application that the Code only permits tariffs to be set to recover minimum short run equilibrium costs is "mischievous" (WMC Submission 1, p. 52). Anaconda argues that coverage will act to promote investment in related industries:

> *… the public interest is served by Coverage because Coverage will limit GGT's capacity to exploit its monopoly position and allow investors along the GGP route to invest with the assurance of ongoing access to the GGP. Further, it will ensure, when properly implemented, that the provision of GGP services is not constrained to the detriment of the market. These benefits may give rise to regulatory costs but, provided these costs are contained, they should not be against the public interest. (Anaconda, p. 40)*

Benefits of coverage

7.21 The Council concluded in its analysis of criterion (a) that the GGP continues to enjoy substantial market power that can be exploited in dependent markets. As such, continued coverage of the GGP under the National Gas Access Code would bring substantial competition benefits.

7.22 In proposing the regulation of the GGP solely under the National Gas Access Code (through removal of the State Agreement), Alinta points to the benefits of a common access regime across states and territories (Alinta, p. 1). Newmont also argues that there are advantages to the GGP being subject to a uniform national access regime. These include increased certainty arising from the regime's repeated application to pipelines across Australia and the establishment of a body of rulings and precedents, and greater independence of the regime from state politics (Newmont, pp. 47-48). According to Newmont:

> *predictability, reliability and independence of domestic politics are important factors for investors (domestic and foreign) and will encourage investment and avoid distortion of investment decisions in the GGP. These matters are not contrary to the public interest. (Newmont, p. 48)*

7.23 Newmont also argues that coverage of the GGP may promote better environmental outcomes. Newmont states that the construction of the GGP has led to a decrease in overall greenhouse gas emissions from power generation in south-west Western Australia, due to the replacement of diesel and coal by gas. Newmont argues that, as coverage will promote competition in the market for the supply of electricity along its route, this may lead to more users switching to gas-fired electricity generation and thus a further reduction in greenhouse gas emissions (Newmont, p. 48).

7.24 Newmont argues further that coverage of the GGP will promote development in the region served by the GGP. Newmont argues that improved access to the GGP arising from coverage will result in cheaper power and production gas than would otherwise be available. This would in turn promote development of highly prospective resource bodies and improve (and reduce the cost of) townships in the region (Newmont, pp. 48-49).

Balance of costs and benefits

7.25 The Council accepts that there are regulatory and compliance costs associated with coverage under the National Gas Access Code. It is necessary for the Council to determine whether the benefits of access outweigh the costs.

7.26 The most significant benefit of continued coverage is the possibility that access to the GGP will facilitate competition. In its consideration of criterion (a), the Council has concluded that the GGP continues to enjoy substantial market power that can be exploited in dependent markets. In the light of this conclusion, the Council does not accept GGT's argument that the application of the Code will make no positive contribution to improving the competitive environment. On the contrary, the Council considers that the competition benefits of continued coverage under the National Gas Access Code would be considerable.

7.27 The Council notes that submissions suggest that there may also be other benefits of continued coverage, including in relation to environmental and regional development outcomes.

7.28 The Council accepts that continued coverage under the National Gas Access Code will give rise to direct regulatory costs, including those associated with the preparation of access arrangements. However, the Council does not consider these costs to be significant compared with the competition benefits that would be associated with continued coverage.

7.29 With respect to the indirect costs of regulation, the Council notes that they appear to fall into two broad categories: the distortion of investment decision-making, and costs associated with the application to the GGP of two regulatory regimes.

7.30 With respect to the former, the Council is not aware of any reasons why coverage of the GGP would raise unique issues of investment risk. The Council notes that the GGP has been covered under the National Gas Access Code since its inception. Thus, issues of investor uncertainty that might reasonably be associated with greenfields pipeline investments do not arise in this case. The Council also notes the findings of Ordover and Lehr that pricing mechanisms within the National Gas Access code lessen the standard concerns about inefficiencies that may result from regulatory pricing rigidities as it does not restrict the ability of parties to negotiate away from regulated reference tariffs.

Moreover, given that its analysis under criterion (a) suggests that there would be significant access and competition benefits associated with continued coverage, the Council considers that continued coverage may well lead to improved incentives to invest by access seekers.

7.31 With respect to the second issue, the Council acknowledges that, for whatever reason, the regulation of the GGP under both the National Gas Access Code and the State Agreement has given rise to costs. The Council notes that these costs could be eliminated by the repeal of the provisions of the State Agreement Act that relate to third party access. Compared with revocation of coverage under the National Gas Access Code, this outcome would capture the benefits associated with the application of a uniform national access regime, while maintaining the competition benefits associated with coverage. The capturing of the benefits associated with uniform national regulation was a key motivation behind Governments implementing the National Gas Access Regime.

Conclusion on criterion (d)

7.32 While regulation of any gas pipeline carries attendant costs, the Council found under criterion (a) that the competition benefits of coverage in this case are substantial. On the evidence currently before it, the Council therefore considers that the benefits associated with continued coverage of the GGP under the National Gas Access Code outweigh the costs. Accordingly the Council is satisfied that continued coverage of the GGP would not be contrary to the public interest. The Council's final recommendation is therefore that criterion (d) is met.

Appendix A – Coverage criteria in the National Gas Access Code

Section 1.9 of the National Third Party Access Code for Natural Gas Pipeline systems 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 application) 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.*

Appendix B - Public submissions

First Round

Alinta

Anaconda Operations Pty Ltd

ANZ Infrastructure Services Ltd

Australian Pipeline Industry Association

Chamber of Commerce and Industry of Western Australia

Goldfields Gas Transmission Pty Ltd: Summary response to public submissions

Goldfields Gas Transmission Pty Ltd: Response to Newmont submission

Goldfields Gas Transmission Pty Ltd: Response to Anaconda submission

Goldfields Gas Transmission Pty Ltd: Response to OMG Cawse submission

Goldfields Gas Transmission Pty Ltd: Response to WMC submission

Goldfields Gas Transmission Pty Ltd: KPMG comments on Report by Frontier Economics

Newmont Australia Limited

OMG Cawse Pty Ltd

WMC Resources Limited: Submission 1

WMC Resources Limited: Submission 2

Second Round

Goldfields Gas Transmission Pty Ltd

Newmont Australia Limited

WMC Resources Limited

Appendix C – Tariff arrangements for the GGP

Table 1 - Proposed Reference Tariff

Tariff	Toll ($/GJ of Contracted MDQ)	Capacity Reservation ($/GJ of Contracted MDQ/km)	Throughput ($/GJ of Throughput/km)
1-5 Year Contract	0.269392	0.001556	0.000494
6-10 Year Contract	0.246943	0.001427	0.000453
11-15 Year Contract	0.235718	0.001362	0.000433
16-20 Year Contract	0.224494	0.001297	0.000412

Table 2 - Regulator's Assessed Reference Tariff[16]

(Dollars as at 1 January 2000, excluding GST)

Tariff	Toll ($/GJ of Contracted MDQ)	Capacity Reservation ($/GJ of Contracted MDQ/km)	Throughput ($/GJ of Throughput/km)
1-5 Year Contract	0.193595	0.001118	0.000355

[16] The Regulator, in his Draft Decision, stated that Table 32 set out the Regulator's assessed Reference Tariff, directly comparable to that proposed by GGT. However, the Table of Regulator's assessed Reference Tariffs set out in this Draft Recommendation is actually Table 33 from the Regulator's Draft Decision. The Council refers to the Reference Tariffs set out in Table 33, rather than Table 32, as OffGAR advised the Council that Table 33 is, in fact, the Table that sets out the Regulator's assessed Reference Tariff directly comparable to that proposed by GGT.

6-10 Year Contract	0.177462	0.001025	0.000326
11-15 Year Contract	0.169395	0.000979	0.000311
16-20 Year Contract	0.161329	0.000932	0.000296

Table 3 - Tariff Schedule A, effective from 21 Dec 2001

Tariff	Toll ($/GJ of Contracted MDQ)	Capacity Reservation ($/GJ of Contracted MDQ/km)	Throughput ($/GJ of Throughput/km)
1-5 Year Contract	0.294649	0.002040	0.000767
6-10 Year Contract	0.267864	0.001855	0.000696
11-15 Year Contract	0.255687	0.001769	0.000666
16-20 Year Contract	0.243512	0.004685	0.000634

Source: GGT Statement of Tariffs & Charges, effective from 21 December 2001, available on GGT's website at Goldfields Gas Transmission.

Table 4 - Chronology of tariff amendments

Date	Amendment to prevailing tariff
January 1995	GGP owners notify the Minister of the initial tariff schedule under clause 22(4) of the State Agreement ('A1' tariff)
1 March 1998	Discounted 'A2' tariff comes into effect (termination date 31 December 1999). 'A2' tariff represents a 15% discount on the 'A1' tariff.
1 July 1999	Further discounted 'A3' tariff comes into effect (termination date 31 December 1999). 'A3' tariff represents a 20% discount on the 'A1'

	tariff.
1 January 2000	Further discounted 'A4' tariff comes into effect (no termination date specified). 'A4' tariff represents a 25% discount on the 'A1' tariff. Discount is offered to all existing customers of GGT and all except one customer that supplies gas for domestic consumption accepts.
December 2001	The 'A4' tariff discount is withdrawn and the prevailing tariff reverts to the 'A1' tariff.

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