NATIONAL
COMPETITION
COUNCIL

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

Final recommendation

27 February 2006

An appropriate citation for this paper is:

National Competition Council 2006, *Application for revocation of coverage of the Tubridgi Pipeline System under the National Gas Access Regime*, final recommendation, Melbourne.

The National Competition Council

The National Competition Council was established on 6 November 1995 by the *Competition Policy Reform Act 1995* following agreement by the Australian Government and state and territory governments.

It is a federal statutory authority which functions as an independent advisory body for all governments on the implementation of the National Competition Policy reforms. The Council's aim is to 'improve the well being of all Australians through growth, innovation and rising productivity, and by promoting competition that is in the public interest'.

Information on the National Competition Council, its publications and its current work program can be found on the internet at www.ncc.gov.au or by contacting NCC Communications on (03) 9285 7474.

Contents

Abbreviations and glossary of terms

Associated gas	an oil discovery/reserve that contains gas
BHPPAO	BHP Petroleum (Ashmore Operations) Pty Ltd
(the) Council	National Competition Council
covered pipeline	a pipeline covered under the National Third Party Access Code for Natural Gas Pipeline Systems
DBNGP	Dampier to Bunbury Natural Gas Pipeline
ERA	Economic Regulation Authority (Western Australia)
(the) Gas Code	National Third Party Access Code for Natural Gas Pipeline Systems
Gigajoule	equal to 1 billion joules (10^9 joules)
GJV	Griffin Joint Venture
Joule	is a unit of measurement for the energy content of natural gas or other energy sources
Petajoule	equal to 1 million gigajoules (10^{15} joules)
PL	Pipeline Licence
TVIJV	Thevenard Production Joint Venture
Terajoule	equal to 1000 gigajoules (10^{12} joules)
TJV	Tubridgi Joint Venture
Tubridgi Pipeline System	comprises two licensed pipelines—the Tubridgi Pipeline (PL16) and the Griffin Pipeline (PL19)
(the) Tribunal	Australian Competition Tribunal

1 Recommendation

1.1 On 4 November 2005, the Council received two applications from BHP Petroleum (Ashmore Operations) Pty Ltd (BHPPAO) seeking revocation of coverage of the Tubridgi Pipeline (PL16) and the Griffin Pipeline (PL19). These pipelines are owned and operated by BHPPAO, and together form the Tubridgi Pipeline System. The Council has considered the two applications together.

1.2 The Council considers that it is uneconomic to develop another facility to provide the services of either pipeline (criterion (b) is met). The Council also considers that access can be provided to each pipeline forming the Tubridgi Pipeline System without risk to human health and safety (criterion (c) is met).

1.3 However on the evidence available, the Council is not affirmatively satisfied that access will promote competition in any dependent market (criterion (a) is therefore not met) or that coverage is not contrary to the public interest (criterion (d) is not met).

1.4 The Council's <u>recommendation</u> is that the coverage of the Tubridgi Pipeline System should be revoked.

1.5 In making its recommendation the Council has taken account of information provided by the applicant, by interested parties and other organisations and publicly available information. On 7 November 2005 the Council called for submissions in response to BHPPAO's application. It received submissions opposing revocation of coverage from Chevron Australia Pty Ltd on behalf of the Thevenard Production Joint Venture (TVIJV) and from Apache Energy Limited. These parties have gas development interests in the area upstream of the Tubridgi Pipeline System. These parties raised general concerns that revocation of coverage would inhibit competition in the market for development of gas resources in the geographic area potentially served by the Tubridgi Pipeline System in the medium to long term. However, these parties have not provided sufficient evidence to satisfy the Council that prospective demand for transmission services on the Tubridgi Pipeline System generated by development of gas resources is sufficiently likely that a lack of coverage would be a significant factor inhibiting such competition.

1.6 On 19 January 2006 the Council called for further submissions in response to its draft recommendation that coverage of the Tubridgi

Pipeline System be revoked. It received two further submissions. BHPPAO, which supported the draft recommendation, commented on material presented subsequent to its application. Norton White, acting for participants of the TVIJV, submitted that the draft recommendation was in error because, given the factual situation, the Council was legally compelled to find that access to services provided by the Tubridgi Pipeline System would promote competition in upstream markets. Norton White did not provide further factual material.

2 Revocation and the coverage test

2.1 The Gas Code enables parties to apply to the Council for coverage or revocation of coverage of a whole or part of a pipeline. It also gives the Council discretion to recommend that coverage or revocation apply to a greater or lesser extent than requested by the applicant.

2.2 In recommending on an application for revocation of coverage of a pipeline, the Council must consider whether the pipeline meets the coverage criteria (a)–(d) in s1.9 of the Gas Code (see box 1). The Council commences its assessment with criterion (b) because the demonstration that a pipeline exhibits natural monopoly characteristics (and therefore satisfies criterion (b)) is a necessary, but not sufficient, condition for the pipeline to be a bottleneck facility (and so satisfy criterion (a)).

2.3 If revocation is granted, the pipeline owner is not required to submit an access arrangement to (in this case) the Economic Regulation Authority (WA) and third parties will no longer be able to seek access under the Gas Code to the services of those pipelines. Rather access becomes subject to commercial negotiation.

Box 1: The coverage criteria and revocation under the Gas Code[a]

The Council must recommend that coverage of the covered pipeline be revoked (either to the extent described, or to a greater or lesser extent than that described, in the application) if the Council is not satisfied of one or more of the following coverage criteria set out in s1.9 of the Gas Code:

(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*
(d)	*that access (or increased access) to the Services provided by means of the Pipeline would not be contrary to the public interest.*

[a] A copy of the National Third Party Access Code for Natural Gas Pipeline Systems (the Gas Code) can be found on the Code Registrar website at http://www.coderegistrar.sa.gov.au. In Western Australia the Gas Code is contained in the *Gas Pipelines Access (Western Australia) Act 1998*, at schedule 2.

The decision maker

2.4 The Gas Code requires the Council to conduct a public consultation process and issue a draft recommendation followed by further public consultation, prior to making its final recommendation to the relevant decision maker, in this case, the Hon Francis Logan, MLA, Minister for Energy (Western Australia).

Time limits under the Gas Code

2.5 The Gas Code imposes time limits for consultation on and assessment of an application for coverage or revocation. It also permits the Council and the relevant Minister to extend these time limits. In accord with ss7.16–18 of the code, the Council extended the date for completing the final recommendation by a period of 28 days. The Council published a notice of the extension in the Australian on 7 December 2005.

2.6 Accordingly, the Council has submitted a final recommendation to the relevant Minister within this extended period. Upon receipt of the Council's recommendation, the Minister has 21 days, but may extend this period in increments of 21 days, to make a decision on whether or not to revoke coverage of the Tubridgi Pipeline System.

2.7 The Minister must provide copies of his decision and reasons to relevant parties, including the owner/operator and any party who made a submission. The Minister's decision (if it is to grant revocation of coverage) can take effect no earlier than 14 days after the date on which it is made.

2.8 Under the *Gas Pipelines Access (Western Australia) Act 1998*, any person adversely affected by the Minister's decision may appeal to the Western Australian Gas Review Board for a review of the Minister's decision.

3 The application

3.1 On 4 November 2005, the Council received two applications from BHPPAO seeking revocation of coverage under the Gas Code (which applies as law in Western Australia under the Gas Pipelines Access (Western Australia) Act) for the Tubridgi Pipeline (PL16) and the Griffin Pipeline (PL19) that form the Tubridgi Pipeline System. The pipelines are currently covered under schedule A of the Gas Code. The Tubridgi Pipeline System is owned and operated by BHPPAO.

3.2 BHPPAO seeks revocation of coverage of the Tubridgi Pipeline System because it considers that other than Griffin Gas, which has access to the Griffin Pipeline under long term contract, there are no parties, except for the Macedon Gas venture, likely to seek access to the pipeline system. In the case of Macedon Gas, BHPPAO considers that production of about 150 terajoules a day is required to be commercial, and therefore the project would require looping of the entire Griffin Pipeline or construction of a new pipeline. It further considers that any gas from the smaller offshore oil fields would be commingled with Griffin Gas. In these circumstances BHPPAO contends that larger gas developments such as Macedon require a new pipeline and small developments are uneconomic on a standalone basis, and therefore there are no likely gas developments that would benefit from continued coverage of these pipelines.

The Tubridgi Pipeline System

3.3 The Tubridgi Pipeline System has a total capacity of 110 terajoules a day. The capacity of the Tubridgi Pipeline (PL 16) is 30 terajoules a day and the capacity of the Griffin Pipeline (PL 19) is 80 terajoules a day. However, because the Tubridgi Pipeline is not in use (mothballed) the system currently has a nominal capacity of 80 terajoules a day.

3.4 The Tubridgi Pipeline System is located on the flood plain of the Ashburton River, 25 kilometres south of Onslow in Western Australia. Each pipeline in the system is about 87 kilometres in length and occupies the same easement running parallel from the Tubridgi gas processing facility to Compressor Station 2 on the Dampier to Bunbury Natural Gas Pipeline (DBNGP). The Tubridgi Pipeline has a diameter of 168 millimetres and the Griffin Pipeline has a diameter of 273 millimetres.

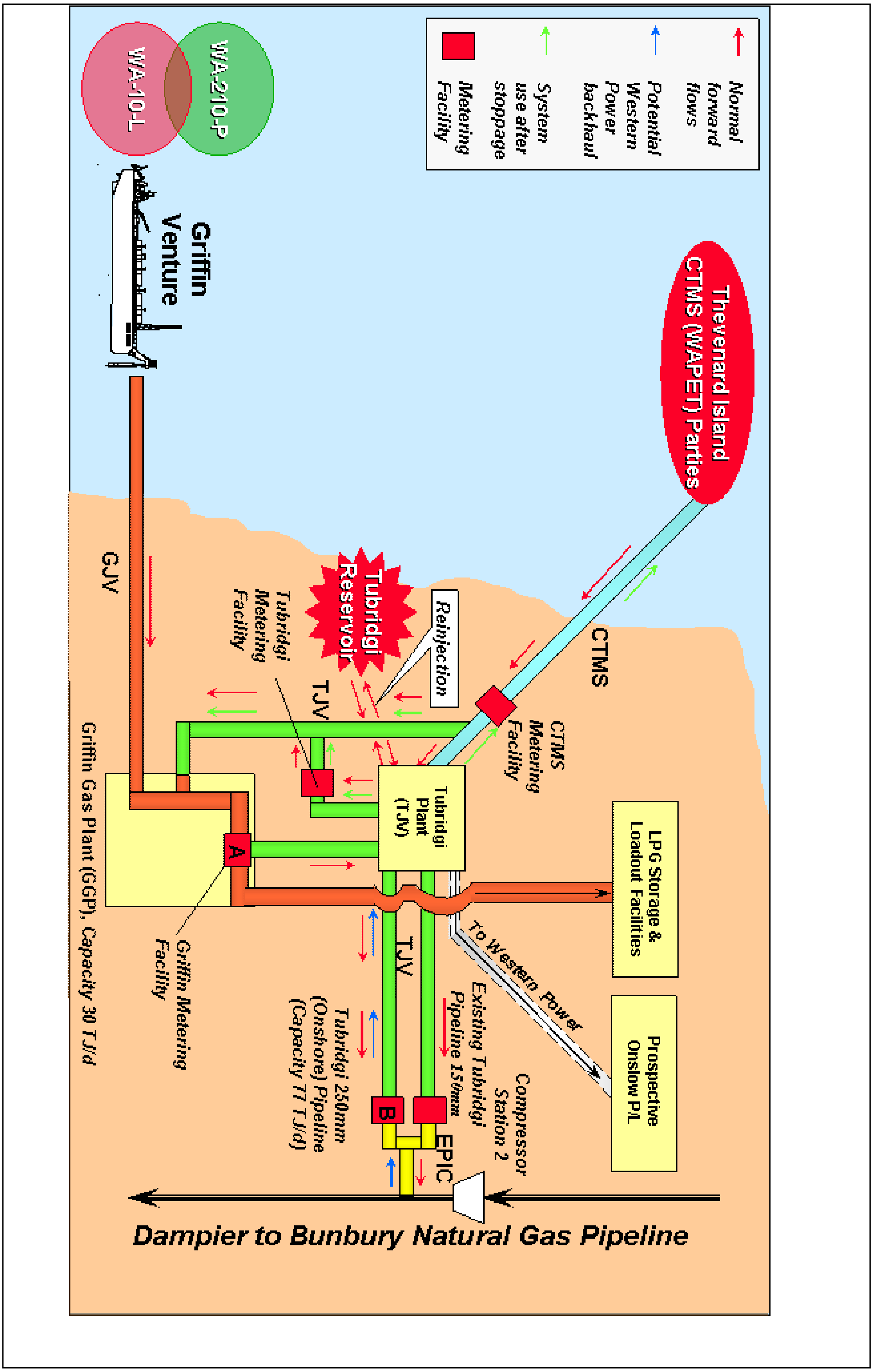
3.5 The Tubridgi Joint Venture (TJV), consisting of Origin Energy Limited subsidiaries (56.65 per cent), Pan Pacific Petroleum Pty Ltd (43 per cent), and Tubridgi Petroleum Pty Ltd (0.35 per cent), initially used the Tubridgi Pipeline to transport gas from the Tubridgi Gas Field to the TJV's customer Alinta Gas under a dedicated contract. Because of the high inert content of gas from the Tubridgi Gas Field, deliveries to Alinta Gas were limited to a maximum of 23 terajoules a day supplied into the DBNGP via a blending arrangement. This arrangement ceased at the end of 2001. About this time the TJV negotiated a new delivery point via the Griffin Pipeline for supply of Tubridgi Gas to Alinta Gas. As the Tubridgi Pipeline was no longer being used the TJV mothballed the pipeline. Between 2001 and 2004, the TJV was also supplying approximately 0.3 terajoules a day of Tubridgi Gas, via a spur line connected to the Griffin Pipeline, to a power plant at Onslow owned by Western Power. In October 2004 the TJV ceased producing gas from the Tubridgi Gas Field for sale. Since that time Western Power has received a volume of gas from the long term contract for Griffin Gas (see para 3.6).

3.6 The Griffin Pipeline was constructed in accord with contractual arrangements between the TJV and the Griffin Joint Venture (GJV), which consists of BHP Billiton Petroleum (Australia) Pty Ltd (45 per cent), Mobil Exploration and Producing Australia Pty Ltd (35 per cent), and Inpex Alpha Ltd (20 per cent). The Griffin Pipeline became operational in 1994. The pipeline is used to transport associated gas from the offshore Griffin Oil Field via the offshore Griffin Gas Plant to the DBNGP. BHPPAO transports the gas for the GJV (which BHP Petroleum operates) subject to a long term contract negotiated prior to the establishment of the Gas Code. The joint venture has priority capacity for approximately 50 terajoules a day and its contract operates for the life of the field. The gas transported does not conform to the current or proposed DBNGP specification and therefore can only enter the DBNGP under a blending arrangement. When blending is not possible the gas is reinjected into the Griffin Field.

3.7 On 15 December 2005, the Economic Regulation Authority approved a revised access arrangement for the DBNGP which contains broadened operating specifications (ERA 2005). Among other things, this revised access arrangement allows the transmission of lower quality gas—an issue of relevance for this application.

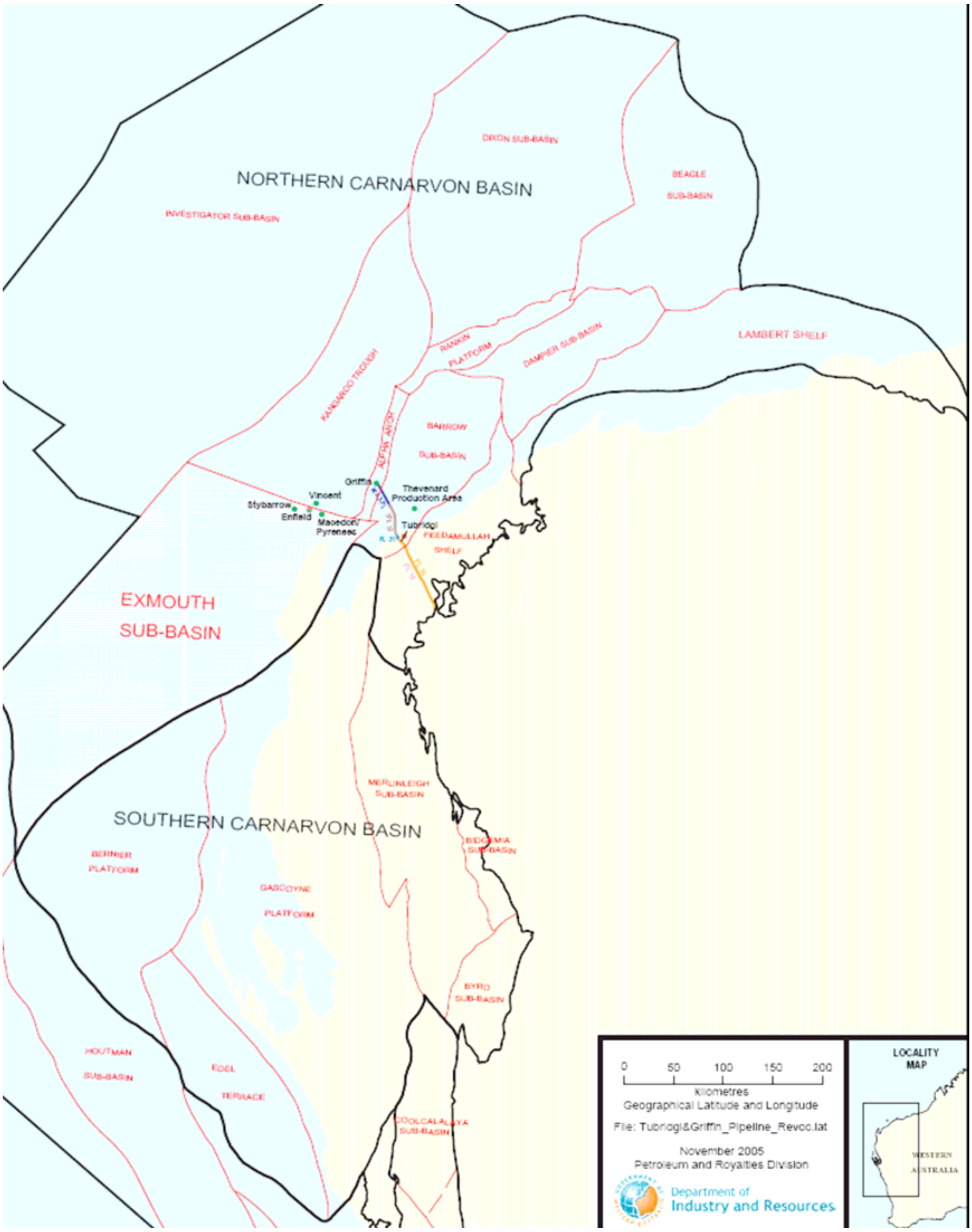
3.8 Figure 1 provides a schematic of the Tubridgi Pipeline System, figure 2 identifies upstream sub-basins, and figure 3 identifies significant hydrocarbon discoveries in the wider area.

Figure 1: Schematic of the Tubridgi Pipeline System



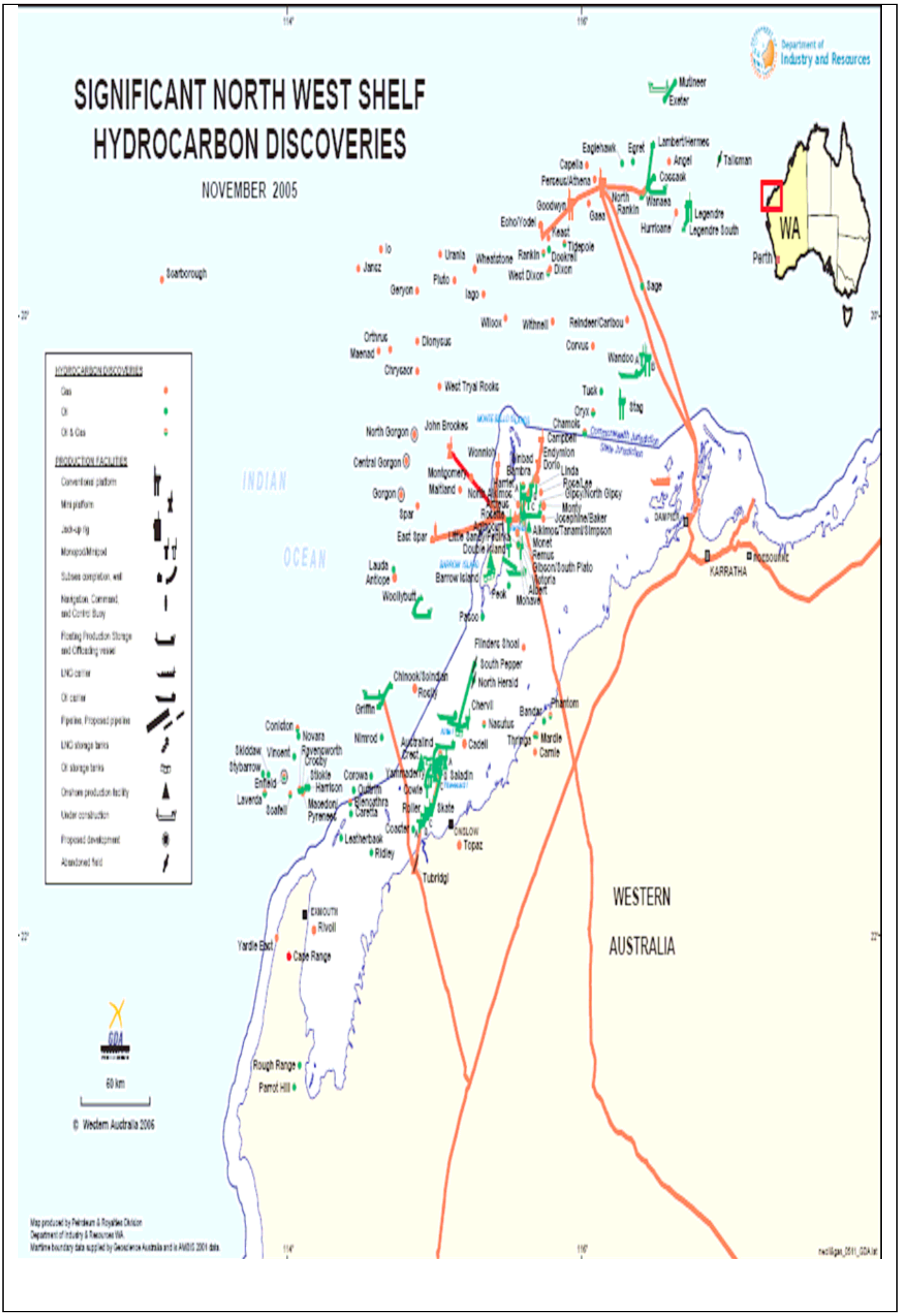
Source: BHP Billiton Petroleum

Figure 2: Sub-basins near the Tubridgi Pipeline System



Source: Government of Western Australia 2005.

Figure 3: Significant northwest shelf hydrocarbon discoveries



Source: Government of Western Australia 2005.

4 Criterion (b): uneconomic to develop another pipeline

4.1 Criterion (b) requires the Council to identify the services provided by means of the Tubridgi and Griffin pipelines, and to assess whether it would be uneconomic for anyone to develop another pipeline to provide those services. If over the range of reasonable foreseeable demand it would be uneconomic to develop another pipeline, that is, the existing pipelines exhibit natural monopoly characteristics, then criterion (b) is satisfied.

The services provided by means of the pipeline

4.2 Reflecting the approach of the Australian Competition Tribunal (the Tribunal), the Council adopts a point-to-point approach to defining the services provided by the pipeline when considering coverage and revocation applications. BHPPAO states that the Tubridgi and Griffin pipelines provide a forward haul and a back haul service from the Tubridgi gas processing facility to Compressor Station 2 on the DBNGP (BHPPAO application 2005). These services are reflected in the current access arrangement applying to the Tubridgi Pipeline System (OffGAR 2001).

4.3 While both the Tubridgi and Griffin pipelines can provide forward and back haul services it does not necessarily follow that the two pipelines provide the same services. In response to an application for revocation of coverage of the Tubridgi Pipeline in 1999 by SAGASCO South East Inc, BHP Petroleum (1999) commented that there are key differences between the Tubridgi and Griffin pipelines. The Tubridgi Pipeline could be used for gas commingling, back haul or reversible flows from the DBNGP or the Goldfields Gas Transmission Pipeline to use the Tubridgi Gas Field storage. The Griffin Pipeline could be used with a wider specification than the Tubridgi Pipeline to supply off specification gas into the DBNGP or the Goldfields Gas Transmission Pipeline.

4.4 BHPPAO now argues that:

(a) Since the closure of the Griffin Gas Plant in 2001 it is possible for Griffin Gas entering the Griffin pipeline to only enter the DBNGP via a blending envelop.

(b) Predicted increases in demand for gas transport using the Tubridgi pipeline have not eventuated such that the

Tubridgi pipeline has been mothballed. BHPPAO's current expectation is that there will be insufficient demand to justify reopening the pipeline in future.

(c) The only gas entering the Tubridgi hub is non specification gas and that is likely to be the situation into the future.

(d) Improved understanding of the Tubridgi Reservoir indicates that the reservoir can be used for gas disposal via injection, but appears unsuitable for gas storage. There is a risk that not all gas injected into the reservoir for storage could be retrieved such that the costs of injection, retrieval and transport (87 kilometres each way) would likely exceed returns.

4.5 Accordingly BHPPAO considers that there is no reason to distinguish between the services of the Tubridgi and Griffin pipelines based on gas specification.

4.6 Apache Energy Limited (Apache), on the other hand, supports the earlier statements by BHP Petroleum. It considers that the pipelines can provide differentiated services.

4.7 The Council accepts that under current circumstances there is no demand requiring differentiation of the services of the Tubridgi and Griffin pipelines. Nevertheless, as noted in BHPPAO's application, the GJV has expressed an interest in accessing the Tubridgi Reservoir for gas disposal. This indicates that there is potential for the Tubridgi Pipeline to provide forward haul or back haul services that are alternatives to those provided by the Griffin Pipeline.

4.8 The pipelines as currently configured have different capacities and dimensions, such that third parties may seek to use a specific pipeline rather than access the Tubridgi Pipeline System.

4.9 The existence of the two pipelines within the system also allows for different specifications of gas to be transported. Users seeking to transport low quality gas may choose to access one pipeline while there is potential for higher quality or processed gas to be carried on the other.

Uneconomic to develop another pipeline

4.10 In determining whether criterion (b) is satisfied the Council adopts the social cost approach endorsed by the Tribunal in Duke Eastern Gas Pipeline.

4.11 Given the capital intensive nature of pipeline infrastructure it is generally not economic to develop another pipeline where an existing pipeline has sufficient spare capacity (or capacity can be developed through compression and/or looping). It is, however, necessary to examine the circumstances of a particular pipeline to assess whether criterion (b) is satisfied in relation to that pipeline.

4.12 In this situation two pipelines have been constructed. This reflects the fact that in the past each carried a different specification of gas product that could not be intermingled. In that sense each pipeline provided a different service and there was no duplication. It is only since both pipelines came into common ownership and the carriage of processed gas ceased that the pipelines became possible substitutes for one another. By that point of course the two pipelines had been developed.

4.13 In the Council's view it does not follow that because two pipelines have been built in particular circumstances, that a third (or successive) pipeline is also economic to construct.

4.14 In the case of the Tubridgi and Griffin pipelines, the relatively short length of each pipeline (87 kilometres) might suggest the sunk costs associated with constructing a new pipeline are not prohibitive and it may be economic to develop a further pipeline to meet demand for access. However the existing pipelines represent a sunk cost and have excess capacity. Under these circumstances it is typically more efficient from an overall societal view point for demand to be met by existing pipelines rather than for a new pipeline to be developed.

Views put to the Council

4.15 BHPPAO considers that criterion (b) is not met in respect of the Tubridgi and Griffin pipelines. In support of this BHPPAO states that:

(a) The only significant gas resource offshore in the area that would be dedicated to the domestic gas market and therefore use the Griffin and Tubridgi pipelines is the Macedon Gas Field. The Macedon Gas Field would need to produce an average of around 150 terajoules a day to justify development of the gas at current prices. The Tubridgi and Griffin pipelines have insufficient capacity for that level of production. As a result, the capital expenditure estimate for Macedon Gas includes expenditure on a new pipeline.

Consequently, it is economic to construct another pipeline for the project.

(b) Any subsequent developments in the area would need to be at least of a similar size and specification to the Macedon project to be commercially viable for domestic production. Therefore other potential gas developments would require construction of a new pipeline.

(c) Small gas fields are uneconomic without existing offshore infrastructure being in place to facilitate export of the gas to shore.

4.16 By contrast Chevron considers that it is uneconomic to develop another pipeline to provide the services of the Tubridgi Pipeline System. It considers that demand for gas has increased since 1999 and is projected to continue to increase into the foreseeable future. To help meet the increased demand Chevron believes that it may be necessary to exploit resources such as those contained in the Thevenard Production Joint Venture area. Chevron states that analysis of existing prospectivity has identified the potential for new production gas within the TVIJV production licence TL4. Development of projects in the region would potentially be discouraged if the TVIJV had to build a new pipeline.

4.17 Chevron estimates that it would cost around A$16 million to construct a pipeline like the Tubridgi Pipeline. Chevron considers that to avoid such an impost it is appropriate to first consider using existing pipeline infrastructure. It considers that if future gas production exceeds the capacity of the pipeline system, then expanding the pipeline system to meet demand would likely be less costly than developing a new pipeline. Expansion could be achieved without the operator losing amenity, and without delay to exports that is likely if a new pipeline had to be developed.

4.18 Apache also considers that it is not economic to duplicate the Tubridgi and Griffin pipelines. It considers that it would be unreasonable to expect companies to spend potentially in excess of A$50 million to duplicate a pipeline when there is substantial spare capacity in the existing pipelines.

4.19 Apache notes that gas fields in the offshore Exmouth region, including the Macedon Gas Field, are likely to be economically marginal at current gas prices. It also considers that a lack of gas infrastructure in the region has a negative impact on the number and type of gas discoveries that can be successfully commercialised. It considers that any unwarranted capital expenditure would likely render such marginal gas developments uneconomic. Apache considers that this is not in the interests of Western Australian gas users, nor consistent with the desire of the Western Australian and Australian governments to create a competitive gas supply environment in Western Australia.

4.20 Apache further considers that any developer seeking to build a third pipeline in the vicinity of the existing pipelines would need to overcome a range of issues, including access to land, Native Title, indemnity and liability issues and so forth. It considers that the time and cost involved in addressing such issues would frustrate new offshore Western Australian gas supply developments and potentially put at risk other gas projects throughout the state.

4.21 Apache believes that, depending on the price of gas, it may be possible to develop the Macedon Gas Field at various flow rates. It considers that it would be feasible to develop the field at initial flow rates below 150 terajoules a day (the minimum scale BHPPAO states is necessary for commercial development of the field) subject to appropriate gas markets being secured.

4.22 Apache adds that it is actively exploring in surrounding offshore areas to the Macedon Gas Field. It notes that it intends to drill six exploration wells in the next year and believes that development of the gas would be facilitated by regulated access to the Tubridgi and Griffin pipelines. It states that development of the Scarborough gas discovery, owned by BHP Billiton Petroleum Pty Ltd and ESSO Australia Resources Pty Ltd, may also result in some of the gas being sold into the Western Australian market via the pipelines. Apache does not, however, provide any evidence to support this statement.

4.23 In response to the Council's draft recommendation, BHPPAO made a further submission addressing the comments by Chevron and Apache (paras 4.16—4.22). Specifically, BHPPAO states that:

(a) commercialisation of a gas field is a market lead, rather than a production lead, activity yet Chevron has not approached BHPPAO to enquire about exporting gas from the Thevenard area via the Tubridgi Pipeline System.

(b) it is misleading for Apache to state that it would not be able to obtain access to the Tubridgi Pipeline System were the Macedon project to be commercialised. BHP Billiton

Petroleum holds 71 per cent of the Macedon Gas Field and if a market is secured to make the project economic, then access to the pipelines would be inherent in the decision by the Macedon joint venture, which includes Apache, to commercialise the field.

(c) it is part of a joint venture in relation to most of the wells in the Exmouth sub-basin to which Apache refers. The target for these wells is oil. While there is a prospect of associated gas being found, such gas would be subject to production and sale difficulties.

(d) there is no current plan for the Scarborough project to use the Tubridgi Pipeline System and if the project were to be economic it would likely be larger than the Macedon project and therefore require dedicated pipelines.

4.24 Chevron and Apache provided no further submissions in response to the Council's draft recommendation.

Analysis

4.25 The Council considers that two issues are relevant to assessing whether the Tubridgi and Griffin pipelines satisfy criterion (b):

(a) whether it is economic to develop another pipeline to provide the same services as each of the Tubridgi and Griffin pipelines given that the pipelines run parallel to each other

(b) whether over the likely range of foreseeable demand it is uneconomic to develop another pipeline to provide the services of the Tubridgi Pipeline System.

4.26 The existence of a natural monopoly does not preclude parallel facilities. The Council considered this issue in an earlier application seeking revocation of coverage of the Tubridgi Pipeline. It considered that:

> *In the event that the Griffin pipeline became capacity-constrained, it would be more economic for the Tubridgi pipeline to provide access for gas transportation than for a new pipeline to be constructed to provide this service. …*
>
> *The Council notes … that a number of new fields could be developed which might be too small to justify construction of a new pipeline.* (NCC 1999, p. 19)

4.27 At the time the Council considered the matter the Tubridgi and Griffin pipelines were not capacity constrained, but the Council accepted that, in future, demand could exceed capacity of the Tubridgi Pipeline. The Council concluded that it would uneconomic for anyone to develop another pipeline to provide the gas transport services provided by the Tubridgi Pipeline.

4.28 Since that time BHPPAO has purchased the Tubridgi Pipeline and now owns the entire Tubridgi Pipeline System. Even though it is feasible to offer competing services on these pipelines, BHPPAO has an incentive to manage the pipelines in such a way as to maximise profit across the system. Indeed mothballing of the Tubridgi Pipeline to avoid the variable costs of operating two pipelines in the presence of spare capacity is evidence that the two pipelines are managed as a single system. Thus the existence of parallel pipelines does not preclude the application satisfying criterion (b).

4.29 This means that assessment of criterion (b) turns on whether it is uneconomic to develop another pipeline or pipelines to provide the services of the Tubridgi and/or Griffin pipelines to meet current and projected levels of demand.

Current and projected levels of demand

4.30 In the Duke Eastern Gas Pipeline decision, the Tribunal considered foreseeable demand over an approximate period of 10–15 years. This period of time provides for adjustments to capacity and the development of new pipelines and new gas fields, and takes account of current long term contracts while recognising the inherent uncertainties in forecasts of demand.

4.31 BHPPAO's application states that current demand for the services of the Tubridgi Pipeline System is approximately 20 terajoules a day—the volume of gas supplied into the DBNGP via the blending arrangement—but that current contractual obligations provide for up to 50 terajoules of gas a day to be transported on a priority basis (see para 3.6). BHPPAO considers that foreseeable demand is unlikely to rise, although should market circumstances change there may be scope to develop the Macedon Gas Field. BHPPAO says this could result in demand for pipeline services in the area increasing by around 150 terajoules a day or higher. In BHPPAO's view an increase of this level cannot be met by the Tubridgi Pipeline System and justifies and requires development of a new additional pipeline.

4.32 Apache considers that increases in natural gas prices and favourable demand conditions could result in Macedon Gas or other similar developments being viable at flow rates less than 150 terajoules a day. On this basis it envisages a requirement of access to capacity within the capacity of the Tubridgi Pipeline System.

4.33 The Council has limited information on which to estimate foreseeable demand for the services of the Tubridgi Pipeline System. Nevertheless, the above information indicates that foreseeable demand for the services of the pipeline system could lie in the broad range of 23 to 200 terajoules a day—this accommodates current contracted services and a significant new development, such as Macedon Gas.

Costs and capacity

4.34 Criterion (b) assesses whether it is more economic, from a community perspective, to satisfy demand for the service via access to existing pipeline systems or via the construction of another pipeline.

4.35 The costs of providing access to the existing facility include:

(a) capital costs of augmentation or expansion that may be required to accommodate third parties

(b) incremental operating costs

4.36 The costs of providing the service via a new pipeline include:

(a) capital costs of construction

(b) transaction costs (for example, planning and financing costs)

(c) operating costs of providing the service.

4.37 Pipelines are commonly identified as having natural monopoly characteristics. This is because the costs of constructing and operating a pipeline are largely sunk and fixed, while the variable costs of increasing output are relatively low. For this reason it is uncontroversial to state that it is generally cheaper (in terms of scale economies) to provide a pipeline service via an existing pipeline than to construct another pipeline for that purpose. Even if a pipeline is operating at installed capacity, it is likely to be cheaper to expand capacity (for example through the addition of loops and/or compression) than to replicate all of the capital costs of constructing another pipeline.

4.38 Using the existing pipeline system would also avoid incurring the transaction costs involved with constructing a new pipeline. As noted at paragraph 4.20 any developer seeking to build a third pipeline in the vicinity of the existing pipelines would need to obtain access to land and to address issues such as Native Title and indemnity and liability. Dealing with such matters could involve a substantial cost both in time and money.

4.39 Only if foreseeable demand exceeds the existing pipelines' maximum potential capacity is it likely to be economic to develop another pipeline to provide the service. Even then it may be possible to develop a new pipeline within the existing corridor that accommodates the Tubridgi Pipeline System. In that sense such an "extension" of the existing system is still more economic than developing an entirely new pipeline.

4.40 BHPPAO's application implies that pipeline services, to accommodate production of about 150 terajoules a day, could be achieved by looping the entire Griffin Pipeline or constructing a new pipeline. Looping the Griffin Pipeline would provide an additional nominal capacity of 80 terajoules a day, increasing the capacity of the pipeline system to around 200 terajoules a day. Thus it would appear that foreseeable demand is unlikely to exceed the maximum potential capacity of the Tubridgi Pipeline System.

Conclusion on criterion (b)

4.41 The Council considers that it would not be economic to develop a pipeline to provide the services of the Tubridgi and Griffin pipelines at current and foreseeable levels of demand. The Council therefore concludes that the Tubridgi and Griffin pipelines satisfy criterion (b).

5 Criterion (a): Promotion of competition

5.1 Criterion (a) requires the Council to consider whether access (or increased access) to services provided by means of the Tubridgi Pipeline System would promote competition in at least one market, other than the market for the pipelines' services.

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

(a) define the relevant dependent market(s) and verify that this market(s) is separate from the market for the service to which access is sought

(b) determine whether access facilitated by coverage would promote a more competitive environment in the additional market(s)

(c) assess whether the effects of coverage have a material impact on the competitive environment in the dependent markets.

5.3 The purpose of criterion (a) is to limit coverage to circumstances where it is likely to enhance the opportunities and environment for competition in any dependent market(s). Whether competition will be enhanced depends critically on the extent to which the incumbent service provider can, in the absence of coverage, use market power to adversely affect competition in the dependent market(s). If the service provider has market power, as well as the ability and incentive to use that power to adversely affect competition in a dependent market, coverage would be likely to improve the opportunities and environment for competition, including offering the prospect of tangible benefits to consumers (such as reduced prices and better service provision).

Dependent market(s)

5.4 The first step in the application of criterion (a) is to define the market(s) in which competition may be promoted as a result of coverage and determine whether they are dependent market(s) separate from the market for the services provided by the pipelines that are the subject of the applications. Typically, the dependent market(s) will be either upstream or downstream from the market for the services.

Views put to the Council

5.5 BHPPAO states that:

(a) the possible sources of demand for the Tubridgi Pipeline System services are the various oil and gas fields in the Exmouth Sub-basin. Current demand is from the Griffin Field although other fields such as Enfield, Stybarrow, Pyrenees, Vincent, and Macedon are being developed or awaiting investment. BHPPAO excludes the TVIJV even though it is in the vicinity of the Tubridgi Pipeline System because it considers that the TVIJV has no intention of exporting gas from the Thevenard project.

(b) a previous source of demand for the Tubridgi Pipeline System services, the onshore Tubridgi Gas Field, ceased production of gas for market in October 2004.

5.6 BHPPAO does not attempt to define a boundary for the downstream gas sales market, although it discusses the two gas sales contracts for Griffin Gas—Western Power and Alcoa. BHPPAO states that only a select few customers with large portfolios of gas supply can purchase Griffin Gas due to its “non firm” nature—its production is associated with oil production and supply is subject to interruptions.

5.7 Apache refers to the markets for gas production and exploration as being the offshore Exmouth region and likely to include the Scarborough gas discovery which is further offshore. Apache refers to downstream markets for gas sales as the Western Australian gas market.

5.8 Chevron explains that the TVIJV has interests in the Thevenard region, including the Australind Gas Field and other exploration and development projects, and states that these should be included in the upstream market.

5.9 The Western Australian Department of Industry and Resources provided the following general information on production and exploration in the area upstream of the Tubridgi Pipeline System.

(a) Some of the gas fields nominated by BHPPAO are located in areas other than the Exmouth Sub-basin, including in the Barrow Sub-basin, the Alpha Arch, and the Kangaroo Trough (see figure 2 for details).

(b) While most fields in the Exmouth Sub-basin are ‘oil prone’, other significant sources of gas close to the Tubridgi Pipeline System include Coniston, Laverda and Scafell.

(c) Significant exploration activity occurs in the Exmouth Sub-basin including by Woodside and BHP Petroleum.

(d) Fields in the southern Barrow Sub-basin including the Thevenard Gas Fields (which connects with the Tubridgi Gas Plant) could use the Tubridgi Pipeline System but are not currently in use.

Analysis

5.10 The Council considers that possible dependent markets in which competition may be promoted by coverage of the Tubridgi Pipeline System relate to gas exploration and gas production (often as an adjunct to oil exploration and production), and gas sales. These markets are economically separable and distinct from the market for gas transmission.

5.11 The Council considers that the geographic boundary of the exploration and production market should be delineated by the areas served or potentially served by the pipelines in question; that is, gas producers and explorers within the scope of feasible interconnection with the Tubridgi Pipeline System. At a minimum this boundary would appear to include Exmouth Sub-basin, Barrow Sub-basin, Alpha Arch and Kangaroo Trough. The Council recognises, however, that gas discoveries from further afield (including the Scarborough Gas Field in the Investigator Sub-basin) may be within feasible interconnection with the Tubridgi Pipeline System (see figure 2).

5.12 The Council considers the downstream market for gas sales consists of, in general terms, any gas producers and users that are interconnected with the Tubridgi Pipeline System. Interconnection of the Tubridgi Pipeline System with the DBNGP extends the boundary of the downstream gas sales market to most major markets in Western Australia.

Conclusions on market delineation

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

(a) the upstream market for gas exploration, gas production and gas sales from any field within the feasible scope of interconnection with the Tubridgi Pipeline System

(b) the downstream market for gas sales, which includes any producers and customers in Western Australia connected, or within feasible interconnection, with the Tubridgi Pipeline System—which encompasses most major markets in Western Australia.

Promotion of competition in dependent markets

5.14 The Council must determine whether access (or increased access) facilitated by coverage would promote a more competitive environment in a dependent market. This requires an assessment of:

(a) whether the structure of a dependent market is such that coverage would promote competition in a dependent market, and

(b) the ability and incentive of the transmission service provider to exercise market power.

5.15 As criterion (a) requires at a minimum competition to be promoted in one market, the Council has concentrated on the most likely market for this to occur—the upstream market for exploration, production and sales. Exclusion of other markets should not be construed as meaning that promotion of competition does not occur in other markets, just that it is less likely (an example being the downstream market for gas sales).

Views put to the Council

5.16 BHPPAO contends that access to the pipeline system will not promote competition in any dependent market for the following reasons.

(a) Griffin Gas has access to the Griffin Pipeline under a long term contract between GJV (BHP is part of this venture) and BHPPAO which protects the venture's access position for the life of the field. The GJV has priority to approximately 50 terajoules a day of capacity in the Griffin Pipeline.

(b) A subsidiary of the BHP Billiton Group has a controlling interest in the largest gas field in the Exmouth Sub-basin, the Macedon Gas Field. BHPPAO states there are several barriers that prevent this gas going to market. Commercial viability requires gas production of approximately 150 terajoules a day and further that the gas meets the DBNGP gas specification and can be delivered on a firm basis. This volume will require the entire length of the Griffin Pipeline to be looped. To date, BHPPAO has been unsuccessful in locating a market for this volume of gas despite several years of active marketing, and the gas does not meet the gas specification for transport on the DBNGP.

(c) The other possible sources of demand for access to the pipelines are the various oil fields that contain associated gas in the Exmouth Sub-basin, which includes Enfield, Stybarrow, Pyrenees and Vincent. The owners of these oil fields have decided to inject their associated gas into their respective reservoirs rather than collaboratively installing collection and transportation infrastructure for exporting gas to shore for storage or sale via the Tubridgi Pipeline System.

(d) BHPPAO is not aware of other gas accumulations in the area (including gas from the TVIJV) that meet the broadened DBNGP gas specification or could be dedicated to domestic gas supply.

(e) If another source of gas did enter the Tubridgi Pipeline System it would most likely be from an oil field with associated gas that does not meet the DBNGP specifications, and hence is low value. The supply of this gas would be a function of oil production and the availability of a blending envelope on the DBNGP, therefore classified as interruptible and only large customers with diverse portfolios of gas supply contracts could accommodate this gas. This gas would be commingled with the existing associated Griffin Gas so that the entire blend would not meet the proposed widened DBNGP specification.

(f) There is no competition impact on downstream gas sales markets because customers do not prefer supply of interruptible off specification associated gas produced via the Tubridgi Pipeline System.

(g) The volume of off specification Griffin Gas that can enter the DBNGP (at compressor station 2) is limited to a volume that will not bring the total volume of gas in the DBNGP below the specification threshold. The opportunity to blend requires gas already being transported in the DBNGP to be above specification, otherwise the blending envelope disappears. BHPPAO indicates that 18-20 terajoules a day of off specification Griffin Gas currently enters the DBNGP and that any greater volume would cause the blending envelope to disappear.

(h) 620 terajoules a day of gas pass through DBNGP compressor station 2, which dilutes the impact that Griffin Gas currently has on competition in downstream markets

(i) The Western Power electricity generation plant located in Onslow is being supplied with approximately 0.3 terajoules a day of Griffin Gas under a long term contract. BHPPAO argues that the Onslow market is so small that it could not be regarded as a contestable market for new entrants (as the cost of providing the gas would not justify the benefit to be obtained).

5.17 BHPPAO also re-addressed arguments that BHP Petroleum Pty Ltd made to the Council on 10 June 1999 opposing the revocation of coverage of the Tubridgi Pipeline. At that time, BHP Petroleum was the operator of the Griffin Pipeline. Its earlier arguments opposing coverage included:

(a) that there was significant potential for both pipelines to be used by third parties

(b) the Tubridgi Pipeline could be used separately from the Griffin Pipeline to transport off specification gas to markets while the Griffin Pipeline continues to be used for within specification gas transport. Tubridgi could be used for gas commingling, back haul or reversible flows from the DBNGP or the Goldfields Gas Transmission Pipeline for storage in the depleted Tubridgi Gas Field

(c) access will promote competition for actual and future upstream suppliers into the Goldfields Gas Transmission Pipeline, the DBNGP, for local needs and industrial users

(d) access is currently being sought.

5.18 BHPPAO provides the following changed circumstances to rebut BHP Petroleum's 1999 views.

(a) Griffin Gas has not met the specifications for transport on the DBNGP since closure of the processing facility, the Griffin Gas Plant, in February 2001.

(b) The Tubridgi Pipeline has been mothballed because of insufficient demand to justify its operation.

(c) The only gas that enters the Tubridgi hub, and is likely to, is non specification gas. Hence there is no reason to distinguish between the provisions of different services based on gas specification.

(d) The now depleted (and shut in) Tubridgi Gas Field could be used for gas disposal, though its suitability as a gas storage reservoir is much less certain. There is a risk that gas injected would not be fully recoverable due to geological complications. Storage would require large volumes of pad gas and the cost of transport to and from the DBNGP (87 kilometres each way) makes the storage option uneconomic.

(e) The strategy for known associated gas reserves in the Exmouth Sub-basin is reinjection into existing oil reservoirs, and for Macedon Gas, commercialisation requires looping of the entire Griffin Pipeline. Hence, third party access would not enable actual or future gas supplies in the area to enter the market competitively.

(f) BHPPAO is not aware of any application for access being made for the Tubridgi or Griffin pipelines, other than by Western Power. Western Power approached TJV for a back haul service from the DBNGP to supply gas to the Onslow power station following depletion of the Tubridgi Reservoir, Western Power did not proceed following substitution of Griffin Gas into its contract, which Western Power advises is in place for approximately 10 years.

5.19 Apache opposes revocation of coverage of the Tubridgi Pipeline System. It argues that:

(a) there is significant long term potential for Apache and other third parties to use the Tubridgi Pipeline System transmission services to supply gas into the Western Australian gas market (which could include markets connected to the Goldfields Gas Transmission Pipeline, the DBNGP and potentially other nearby new industrial projects). Apache supports the statements made in BHP Petroleum's 1999 submission that opposed revocation of coverage of the Tubridgi Pipeline, including that either or both pipelines in the Tubridgi Pipeline System could be used for gas commingling, for backhauls and/or reversible flows from the DBNGP or the Goldfields Gas Transmission

Pipeline to use the depleted Tubridgi Gas Field for gas storage.

(b) it is marketing gas into Western Australian gas markets which could require development of the Macedon Gas Field at various flow rates, and at initial flow rates below that suggested by BHPPAO

(c) it is drilling hydrocarbon exploration wells in the surrounding offshore area and it is realistic that access to the Tubridgi Pipeline System will be required to underpin that development

(d) the BHP Billiton group's vertical linkages in the gas industry (and its local vertical operations) could enable anticompetitive behaviour

(e) production of gas fields in the offshore area, including Macedon Gas Field, are likely to be economically marginal at current gas prices

(f) revocation of coverage would decrease the likelihood of future gas supplies (including the Macedon Gas Field) entering the Western Australian gas sales market

(g) BHPPAO has not included the Scarborough gas discovery as potentially requiring access to the Tubridgi Pipeline System to reach Western Australian gas sales markets.

5.20 Chevron opposes revocation of coverage of the Tubridgi Pipeline System. It argues that:

(a) it continues to undertake exploration activities within the Thevenard region and there is high potential for gas discovery

(b) access to the Tubridgi Pipeline System is a key criterion for its commitment to invest in the development of these projects, and development is less attractive without access due to possible pipeline construction costs

(c) continued coverage will maintain the environment for development of gas fields and exploration in the region, and to recommence export of associated gas (as it did via the Tubridgi Pipeline in the mid to late 1990s).

5.21 According to the Western Australian Department of Industry and Resources:

(a) there are significant sources of gas (though most fields are oil prone) and exploration activities in the area offshore from the Tubridgi Pipeline System

(b) the broadened specifications for gas entering the DBNGP will affect gas production and exploration, although it is marginal as most Exmouth Sub-basin associated gas contains high levels of inert gas and carbon dioxide, and some hydrogen sulphide

(c) demand for the Tubridgi Pipeline System transmission services will be dependent on two interrelated factors—the volume of gas discovered in the upstream area and transmission hurdles on the DBNGP (the available capacity to accept additional gas and meeting the specification for entry).

5.22 BHPPAO's submission in response to the Council's draft recommendation (see para 4.23) notes that while commercialisation of a gas field is a market lead activity, Chevron has not approached BHPPAO in relation to exporting gas from the Thevenard area via the Tubridgi Pipeline System. And, if a market is secured to make the Macedon project economic, existing infrastructure, including the Tubridgi Pipeline System, would be used by the joint venture (of which Apache is a part) to commercialise the field. Most of the wells that Apache refers to in the Exmouth sub-basin target oil rather than gas.

5.23 Norton White asserts that the availability of the Tubridgi and Griffin pipelines to carry any gas from the Thevenard region will materially assist in making more viable the exploitation of any gas reserves in those fields. It contends that, given this factual situation, it is not open to the Council to find other than criterion (a) is satisfied.

Analysis

Structure of the dependent market

5.24 The Council considers that owing to the relatively low quality of any additional gas that might be supplied through the Tubridgi Pipeline System, quantities would be small and in this context unlikely to have a material impact on the Western Australian downstream gas sales market.

5.25 The Council is persuaded by BHPPAO that competition for upstream gas production is constrained by factors other than access to the Tubridgi Pipeline System, and that these factors dilute demand for transmission services. These constraints are primarily that:

(a) gas discoveries are associated with oil fields and are of low quality

(b) gas production is interruptible because the volume produced is dictated by oil production requirements

(c) there are no known gas discoveries that meet the broadened gas specification for transport on the DBNGP

(d) transport on the DBNGP is necessary to reach main gas use markets in Western Australia

(e) low quality gas requires a new blending envelope to be available on the DBNGP before transport can be accepted.

5.26 BHPPAO argues that these constraints have led to the current circumstance where there is no gas production except from the GJV which transports 18-20 terajoules a day on the Griffin Pipeline. The GJV has access to 50 terajoules a day of capacity on the Griffin Pipeline under a contract that lasts for the life of the field. Coverage of the Tubridgi Pipeline System will not affect this contract arrangement—the contract removes Griffin Gas from the Council's assessment of whether coverage will improve the environment for competition.

5.27 BHPPAO also argues that the constraining factors have led to oil fields in the region reinjecting their associated gas, and to a situation where no gas producer has shown formal access interest in the past six years. This has led to TJV mothballing the Tubridgi Pipeline, and it remaining mothballed under BHPPAO ownership. The only access inquiry has been from Western Power which required a very small volume of gas (0.3 terajoules a day) for its Onslow power plant. As with the GJV, Western Power now has a contract in place that protects its access position for approximately ten years. Coverage would not affect this arrangement for the term of contract.

5.28 These constraints are likely to reduce the viability and marketability of gas from the upstream area, and hence the demand for Tubridgi Pipeline System's transmission services.

5.29 The Council received two submissions from participants in the upstream market, both of which oppose revocation of coverage of the Tubridgi Pipeline System on the basis of future prospects of exploration and development. These participants claim that their hydrocarbon exploration activities in the upstream market may discover gas that may require the transmission services of the Tubridgi Pipeline System. Their submissions suggest that without coverage of the Tubridgi Pipeline System development of future gas discoveries would be less likely due to the service provider being able to exercise market power. Chevron, for example, states that access to the Tubridgi Pipeline System is a key criterion for its commitment to invest in the development of future gas projects, and that coverage will maintain the environment for ongoing development of gas fields and exploration in the region.

5.30 Regarding the Macedon Gas Field, Apache challenges BHPPAO's view that a flow rate of 150 terajoules a day is required for the field to be economically viable, and that this would require additional pipeline investment (looping). The basis of Apache's challenge is that the flow rate is determined by the gas price. Apache argues that development may be possible at various flow rates, and at initial flow rates below BHPPAO's estimate depending on gas prices. Apache is actively marketing gas into Western Australian gas markets and may require development of the Macedon Gas Field.

5.31 BHP Billiton Petroleum has a 71.41 per cent interest in the Macedon Gas Field. The Council presumes that this may afford BHP Billiton Petroleum control over the joint venture party production decisions, including on flow rates. If this is the case, coverage of the Tubridgi Pipeline System would not prevent BHP Billiton Petroleum from making flow rate decisions that would require capacity on the Tubridgi Pipeline System in excess of the current configuration. The Council notes the link between the gas price and the flow rate requirement for viability, and that a gas price increase would (all else being equal) reduce the flow rate required for viability. Hence, there are production scenarios that differ from BHPPAO's view of a 150 terajoules a day flow rate. Apache, however, argues only that initial flow rates less than 150 terajoules a day are possible.

5.32 Coverage of the Tubridgi Pipeline System would not influence decisions regarding flow rates required for production of Macedon

Gas. The benefit of coverage would be confined to facilitating access to transmission services under an access arrangement, and preventing the transmission service provider from exercising market power by vertical leveraging or monopoly pricing.

5.33 The volume of gas from upstream of the Tubridgi Pipeline System available for sale in Western Australian gas sales markets (via the DBNGP) will be restricted by the availability of a blending envelope on the DBNGP (because off specification Griffin Gas can only be blended on the DBNGP up to the point where the envelope disappears). The quality of Griffin Gas relative to the slightly above specification gas that the DBNGP carries creates an envelope for entry of 18-20 terajoules a day of Griffin Gas on the DBNGP. Although this estimate predates the broadening of the DBNGP gas specifications, the gas specification requirement for transport on the DBNGP remains a significant constraint on the production and marketability of low quality gas.

5.34 There are several ways in which additional gas from the upstream market could be supplied to sales markets. These include:

(a) the GJV no longer supplying off specification gas into the DBNGP

(b) the effect of broadening the gas specifications for transport on the DBNGP

(c) growth in demand for gas encouraging an increase in the size of this blending envelope

(d) the processing of gas prior to transport.

5.35 The Council has no evidence to suggest that the GJV supply arrangement will discontinue in the foreseeable future. BHPPAO states that the Griffin supply arrangement will continue for the life of the project. In any case, supply of such a small volume of gas from parties other than the GJV would be further constrained by the cost of building offshore collection and transmission infrastructure. This would be the case for any participant apart from the TVIJV which already has an offshore collection system (currently not in use).

5.36 The broadened gas quality specification in the revised DBNGP access arrangement is likely to improve the marketability of gas reserves upstream from the Tubridgi Pipeline System. While BHPPAO argues that known and future discoveries of gas will be off specification for shipping on the DBNGP and not able to be shipped outside a blending envelope, the broadening of the specifications will likely increase the size of the blending envelope that allows Griffin Gas, and potentially other gas from the upstream market, to enter the DBNGP. Hence, a greater volume of off specification gas from the upstream market could be transported. In its draft recommendation, the Council noted that it had not received any information from interested parties on the likely impact of broadening the gas specification for the DBNGP, but presumed that any volume change would be marginal. In response to the draft recommendation, BHPPAO provided data on the effect of broadening the gas specification for the DBNGP and the consequent implications for volumes of Griffin Gas. These data indicate that lifting total inert limits from 5.5 per cent to 7.0 per cent would have a limited effect on the volumes of Griffin Gas that could enter the DBNGP.

5.37 The Council considers that the growth in demand for gas in Western Australia is unlikely to significantly increase in the size of the blending envelope for low quality gas upstream of the Tubridgi Pipeline System. ABARE reports that demand for natural gas in the state is estimated to grow by an average of about 4.3 per cent a year over the 2001-02 to 2009-10 period. The longer term projection is that demand for gas in Western Australia will increase by around an average of 3.6 per cent a year over the 2001–02 to 2019–20 (Akmal et al. 2004).

5.38 In its draft recommendation the Council noted that:

> *…the option of processing gas to meet DBNGP specifications has not been raised by either the applicant or by interested parties. Processing gas to this specification would overcome BHPPAO's argument that gas (current or future possible discoveries) from upstream fields is unlikely to meet the specifications for transport on the DBNGP and will therefore require a blending envelope. The Council has no evidence before it on the viability of processing gas to DBNGP specifications, except that Griffin Gas was processed in the Griffin Gas Plant until February 2001, after which time a lower quality gas has entered the DBNGP via a blending envelope. The Council presumes that the additional cost of processing low quality gas to DBNGP specifications would require a greater volume of production and perhaps to the point where a dedicated pipeline or significant augmentation of an existing pipeline becomes economic—this is likely to be a prohibitive factor. At current prices, this appears to be the case for Macedon Gas*

5.39 In response, BHPPAO contends that processing gas from the Macedon project to enable that gas to meet the DBNGP specification would 'further destroy the economics of the Macedon project'. It notes that Macedon gas would need to be spiked with condensate and put through a cryogenic unit to remove nitrogen—processes that would add substantially to costs.

5.40 BHPPAO argues that there is no reason to distinguish between the provisions of different services within the Tubridgi Pipeline System based on gas specification because only off specification gas is entering the Tubridgi Pipeline System. The Council considers this argument is valid currently and for the foreseeable future. If processed gas that meets the DBNGP gas specification becomes available for market, then this may create a need for the provision of separate services within the Tubridgi Pipeline System—transport of processed gas (that meets DBNGP specification) via the Tubridgi Pipeline and Griffin Gas (which does not meet DBNGP specification) via the Griffin Pipeline. On the basis of the evidence before it, the Council considers this scenario to be unlikely.

5.41 BHPPAO also states that if additional off specification gas enters the Griffin Pipeline it would be commingled with the existing associated Griffin Gas, and therefore the entire stream would not meet the broadened DBNGP specification. For the 1999 recommendation, the Council accepted the argument by BHP that commingling of other gas with Tubridgi Gas (which was off specification) may enable more gas to be carried in the Tubridgi Pipeline. This would be true wherever the new gas introduced to the Tubridgi Pipeline is closer to the specification of the DBNGP than the gas currently carried in the pipeline. There is no evidence before the Council as to why the argument presented in the 1999 recommendation should not still apply, despite the changes in pipeline use since then. In the current circumstances (where Tubridgi Pipeline is mothballed and the Griffin Pipeline transports Griffin Gas), it would seem plausible that commingling of other gas with Griffin Gas may enable more gas to be carried in the Griffin Pipeline wherever the new gas was closer to the specification of the DBNGP. In the 1999 recommendation, the Council also accepted that continued access to the Tubridgi Pipeline may facilitate the transport of different specifications of gas from the gas transported in the Griffin Pipeline where commingling presented a problem.

Ability and incentive to exercise market power

5.42 Whether coverage of a pipeline will promote competition depends critically on whether the provider of pipeline transmission services has market power that it could use to adversely affect competition in the dependent market(s). Competition can be adversely affected where a service provider has the ability to profitably raise prices above economic costs and/or restrict access to its services for a sustained period of time.

5.43 BHPPAO could adversely affect competition in the dependent upstream market where it has an ability and incentive to:

(a) leverage its market power to advantage a vertically related affiliate

(b) increase profits through explicit or implicit price collusion, and/or

(c) increase profits by charging monopoly prices for services.

5.44 The Council notes that BHPPAO is a subsidiary of the BHP Billiton group that operates in numerous functional levels of the gas market including exploration, production, transmission and sales. For example, the BHP Billiton group has significant interests in hydrocarbon exploration and production ventures in the vicinity of its Tubridgi Pipeline System—including in the Stybarrow, Pyrenees, Vincent, Macedon, Coniston, Scafell, Griffin, Chinook, Scindian and Scarborough fields. There are other ventures in the vicinity of the pipeline system that have no affiliation with the BHP Billiton group, including the TVIJV and Enfield.

5.45 Apache expresses a concern in its submission that the BHP Billiton group's presence in dependent upstream and downstream markets, as well ownership of the Tubridgi Pipeline System 'will put BHP [Billiton group] in an unfair position which could result in an uncompetitive outcome'.

5.46 In relation to Apache's claim, BHPPAO counters that the dominant suppliers of gas in the Western Australian gas market are the North West Shelf and Apache via its interests in the East Spar, Harriet and John Brookes fields. It adds that BHP Billiton has between a 1/12 – 1/6 interest in the North West Shelf domestic gas joint venture and so has equal or less influence than other participants.

5.47 There is compelling evidence that lack of demand means there is no current benefit from coverage of the Tubridgi Pipeline System. These views on the current circumstances were not challenged by interested parties. The Council considers that, in the short term, access is unlikely to have a material impact on competition in the dependent market for gas production. There is likely to be little or no additional demand beyond the currently contracted volumes for transmission on the Tubridgi Pipeline System.

5.48 However, consideration of coverage must be undertaken on a medium to long term basis, where a 10-15 year horizon is appropriate. Over such a period demand for transmission services may increase and access to the Tubridgi Pipeline System may be sought. The timing and probability of circumstances under which demand for the transmission services provided by the Tubridgi Pipeline System would grow are critical to the Council's determination. While the Council notes the arguments raised in submission on possible future use, it considers these to be speculative in nature, and that there is insufficient evidence to be affirmatively satisfied that gas finds will be developed over the long term.

5.49 While the Council considers that other factors such as the expanded blending envelope and rising gas prices may result in additional demand for transmission services provided by the Tubridgi Pipeline System, there is little evidence to suggest that this additional demand will emerge or be significant over the medium to long term.

5.50 In its draft recommendation the Council stated that to find criterion (a) to be met, it must be affirmatively satisfied that competition would be promoted in a dependent market. On balance, and on the information available to it, the Council considered that the effects of coverage are not likely to have a material impact on the dependent market for gas production.

5.51 Norton White argues that criterion (a) is concerned solely with whether or not coverage will improve the environment for competition in another market and hence, if '… there is a likelihood of increased competition…that is enough'.

5.52 The Council is concerned that on the basis suggested by Norton White, criterion (a) would be satisfied as a matter of definition for virtually all bottleneck facilities once a dependent market is identified. In the Council's view consideration of criterion (a) requires an exploration of the facts and a comparison of the competitive conditions in the relevant market with and without coverage to determine whether coverage would materially improve the conditions for competition.

5.53 As the Tribunal stated in Virgin Blue Airlines:

> *... we need to be satisfied that if the Airside Service is declared there would be a significant, finite probability that an enhanced environment for competition and greater opportunities for competitive behaviour—in a non-trivial sense—would arise in the dependent market.*(para 162)

5.54 Among the relevant facts to be examined are the prospect of access actually being taken up if the Tubridgi Pipeline System remains covered and whether prospective demand for the services provided by the system would be such that coverage would have a material effect on competition.

5.55 In response to BHPPAO's application for revocation of coverage, no party submitted that it is likely to use the Tubridgi Pipeline System. Accordingly, in its draft recommendation the Council sought information on the likelihood and timing of any possible demand for the transmission services provided by the system. No such information has been forthcoming.

Conclusion on criterion (a)

5.56 Vertical linkages could provide BHPPAO with some incentive to engage in strategic behaviour to limit competition in a dependent market. This incentive, however, is not strong given the scope of power that might derive from what is a relatively small and peripheral part of the transmission system in Western Australia and the relative position of other large participants in the Western Australian gas market.

5.57 In the absence of any likely additional demand for transmission services that can be supplied by the Tubridgi Pipeline System in the near future, and given current demand is covered by contracts for the life of that demand, in the immediate and short term coverage is unlikely to have any effect on competition in the relevant markets the Council has identified.

5.58 In the longer term it appears unlikely that supply and demand for gas from the upstream dependent market is such that transmission services from the Tubridgi Pipeline System will be required. Given this, the Council is unable to conclude that coverage would promote competition in the upstream dependent market.

5.59 The Council therefore finds that criterion (a) is not met in respect of the Tubridgi and Griffin pipelines.

6 Criterion (c): Health and safety

6.1 Criterion (c) requires 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. The rationale for criterion (c) is that the Gas Code should not be applied to pipelines where access or increased access may pose a legitimate risk to human health or safety.

Views put to the Council

6.2 The Council did not receive submissions arguing that it would be unsafe to provide access or increased access to the services of the Tubridgi Pipeline System. This is consistent with the Council's experience in relation to a number of applications seeking coverage and revocation of coverage of pipelines, where safety concerns were not raised to support coverage or revocation.

Analysis

6.3 The Gas Code contemplates the provision of access to pipelines throughout Australia under gas access Acts in each state and territory. The Council is not aware of any instance where safety concerns have been raised in relation to access or increased access to the services of pipelines. Nor is there any available evidence to suggest that safety is a concern in relation to the provision of access or increased access to the services of the pipeline for which coverage or revocation of coverage is sought.

6.4 The Tubridgi Pipeline System is currently a covered pipeline and access is provided consistent with the Gas Code. The Council is unaware of any human health or safety concerns resulting from access in the past.

6.5 Were coverage of the Tubridgi Pipeline System to be revoked, Western Australia has regulations dealing with the safe operation of gas pipelines. The Council is confident that these regulations would deal appropriately with any safety issues arising from access to the pipeline.

Conclusion

6.6 Access (or increased access) can be safely provided to the services of the Tubridgi and Griffin pipelines forming the Tubridgi Pipeline System. Therefore the Tubridgi Pipeline and the Griffin Pipeline each satisfy criterion (c).

7 Criterion (d): Public interest

7.1 Criterion (d) requires that the Council be satisfied that the overall benefit of regulated access under coverage outweighs the cost. The test is whether there are matters, other than those addressed by criteria (a)–(c), which would lead to the conclusion that revocation would be contrary to the public interest.

7.2 In assessing criterion (d) the Council considers whether the benefits of coverage, such as cheaper prices and more efficient use of resources, are outweighed by regulatory costs. The Council considers, in particular, whether coverage may have adverse incentives for investment in gas pipelines. Where relevant the Council also considers other matters of public interest including environmental considerations, regional development, equity, impending access arrangements, national developments and the desirability for consistency across access regimes, relevant historical matters and privacy.

7.3 The benefits of coverage depend significantly on the likely effect on competition considered under criterion (a). Coverage may be warranted where it offers the potential to facilitate competition in gas exploration, development, production and sales by providing access to essential gas transport or storage services. Where criterion (a) is not met, that is coverage is not likely to promote competition in the dependent market, it follows that revocation would likely be in the public interest. The Council concluded that criterion (a) is not satisfied for the Tubridgi and Griffin pipelines.

Views put to the Council

7.4 BHPPAO states that there is no apparent demand for the services of the Tubridgi Pipeline System other than from Griffin Gas, which has long term access arrangements in place. Further, because any gas likely to be transported in the pipelines in the future will be associated non-specification gas there would be no impact on competition in either the South West market or the Onslow market.

BHPPAO accepts that Macedon Gas would be an exception to this, but considers that it would be necessary to duplicate the Griffin Pipeline to commercialise that gas.

7.5 BHPPAO believes that any potential benefits of coverage under the Gas Code would be far outweighed by the associated cost (in time and resources). It maintains that continued coverage would impose unnecessary regulatory and compliance costs on the state, the regulator and itself as access will have no material effect. It therefore considers the public interest is served by revoking coverage of the Griffin and the Tubridgi pipelines.

7.6 Chevron argues that coverage is crucial to protect the public interest. It states that access to the pipelines would promote development of the TVIJV gas fields and encourage future exploration within the Thevenard area. It states that continuing investment in oil and gas reserves, such as those within TL 4, TL 7 and Australind Gas Field (TR/4) are influenced by access to pipelines.

7.7 Chevron considers that the opportunity to access the Tubridgi Pipeline System provides the TVIJV, and any other third party, with added flexibility in its production capability. Thus it is likely to promote investment in the region.

7.8 Chevron considers that, in the absence of coverage, the pipeline operator may refuse and/or charge monopoly prices for transporting a third party's gas. It considers this would have a flow on effect through higher gas prices and be detrimental to investment, and potentially future employment, in the region.

7.9 Apache considers that revoking coverage of the Tubridgi and Griffin pipelines would limit options for new gas developments (or make development more expensive). It states that this 'can only reduce Western Australia's security of gas supply (by discouraging new sources of supply)' (Apache 2005, p. 3). Apache estimates that over the next 25 years Western Australia is going to require in excess of 6 trillion cubic feet (approximately 1000 petajoules) of new gas supplies to satisfy growth in gas demand. It considers that any potential gas supply shortfall would be compounded if potential new gas supplies were prevented from entering the Western Australian gas market due to an inability to access vital gas supply infrastructure.

7.10 Norton White submits that 'the draft recommendation equates the criterion (d) test—which is the correct legal test—to the quite different test: whether "the Council is satisfied that the overall benefit of regulated access under coverage outweighs the cost"'. It further argues that the Council's consideration of criterion (d) excludes public interest matters in criteria (a)—(c) and is therefore legally erroneous.

Analysis

7.11 In relation to the views of Norton White (para 7.10), the Council considers that the practical application of the coverage criteria address specifically whether a pipeline is a natural monopoly (criterion (b)), whether it occupies a bottleneck position in a market and has attendant market power (criterion (a)) and whether coverage would have health and safety implications (criterion (c)). Criterion (d) encapsulates all other relevant considerations. In coming to a view on criterion (d), the Council must balance and assess the relative public benefits and costs of regulation. The approach and methodology are consistent with the intent of the Gas Code.

7.12 Submissions received by the Council raised issues about the direct costs of regulation and the possible adverse indirect impacts of revoking coverage on incentives for investment. Potential users of the pipeline system are seeking continuation of coverage to prevent BHPPAO from exploiting its market power to prevent access and/or raise gas transport prices in the event that access is sought. Chevron is also concerned that such behaviour may have flow on effects, for example, it may be detrimental to employment in the region. No other matters in relation to the public interest were raised. Therefore in assessing BHPPAO's application the Council considers it appropriate to focus on the cost of regulation relative to the potential investment and competition benefits.

Direct costs of coverage

7.13 Direct costs of regulation are largely the costs of preparing access arrangements, which both the service provider and regulator incur. (In Western Australia the costs incurred by the regulator in developing an access arrangement are borne by the pipeline owner.) BHPPAO argues that the costs of complying with the Gas Code would likely outweigh the benefits. It did not, however, provide any information to assist the Council in estimating these compliance costs.

7.14 It is also relevant to this matter to consider the costs of maintaining a mothballed pipeline in an operational state when no access is being sought. BHPPAO did not, however, provide any evidence of these costs or if coverage had any bearing on whether to mothball or decommission the Tubridgi Pipeline.

7.15 The Council does not anticipate that the costs of developing a new access arrangement for the Tubridgi Pipeline System would be overly high given that the pipeline is already covered and subject to an access arrangement. There may however be some complications in rolling over the existing access arrangement given the mothballing of the Tubridgi Pipeline and the uncertainty over future demand for using the pipelines. That said, some of the costs commonly associated with regulation may be incurred in any case; for example, settling terms and conditions of access with third party shippers.

Impact on investment

7.16 No parties argue that revocation of coverage would have an adverse effect on incentives to invest in pipeline infrastructure. Chevron argues, however, that revocation of coverage of the Tubridgi Pipeline System may have an adverse impact on investment in the development of gas fields in the vicinity of the pipeline system. It considers that revocation of coverage may reduce incentives to invest in development of gas fields in the Thevenard region because access would no longer be available in a transparent and regulated environment.

7.17 Given the marginal nature of much of the gas resources in the vicinity of the Tubridgi Pipeline System it is possible that revocation of coverage could adversely affect investment decision making, by increasing the risk that access to pipeline services may not be available in a timely and/or cost effective manner. The risk would be greater for smaller gas developments for which construction of a new pipeline would likely be uneconomic.

Benefits of coverage

7.18 The benefits of regulating access flow from the restraint of monopoly behaviour, including pricing. Given that the Council considered in its analysis of criterion (a) that it has insufficient evidence to be affirmatively satisfied that gas finds will be developed over the long term that require the Tubridgi Pipeline System transmission services, there appear to be no tangible benefits from coverage.

Conclusion on criterion (d)

7.19 The Council is not satisfied that access (or increased access) to the services provided by means of each of the Tubridgi and Griffin pipelines forming the Tubridgi Pipeline System would not be contrary to the public interest—that is, criterion (d) is not satisfied for each pipeline.

Public submissions

BHP Petroleum (Ashmore Operations) Pty Ltd: application

Apache Energy Limited: submission

Chevron Australia Pty Ltd on behalf of the Thevenard Production Joint Venture: submission

BHP Petroleum (Ashmore Operations) Pty Ltd: response to draft recommendation

Norton White Lawyers on behalf of the Thevenard Production Joint Venture: response to draft recommendation

Other references

Akmal M, Thorpe, S, Dickson, A, Burg, G, and Klijn, N 2004, *Australian energy: national and state projections to 2019-20*, ABARE *e*Report 04.11, prepared for the Australian Government Department of industry, Tourism and Resources, Canberra, August.

ERA (Economic Regulation Authority) 2005, *Further final decision and final approval of revisions to the access arrangement for the Dampier to Bunbury Natural Gas Pipeline*, http://www.era.wa.gov.au/library/DBNGP%5FFurther%5FFinal%5FDecision.pdf, viewed 8 January 2005.

Geoscience Australia 2003, 'Carnarvon Basin', http://www.ga.gov.au/oceans/rpg_Carnarvon.jsp, viewed: 4 December 2005.

NCC (National Competition Council) 1999, *Final recommendations: Applications for revocation of Tubridgi and Beharra Springs pipelines in Western Australia from coverage under WA Gas Access Regime*, Melbourne.

OffGAR (Office of Gas Access Regulation (Western Australia)) 2001, *Final decision and final approval access arrangement: Tubridgi Pipeline System*, Perth.

Australian Competition Tribunal decisions

Re Sydney International Airport (2000) ACompT 1 (1 March)

Re Duke Eastern Gas Pipeline Pty Ltd (2001) ACompT 2 (4 May)

Re Virgin Blue Airlines Pty Ltd (2005) ACompT 5 (12 December)