Issues Paper

Access Arrangement for the Principal Transmission System

Application for Revision by GPU GasNet Pty Ltd

Southwest Pipeline

17 November 2000

Commission File No: C2000/1412
Commission and Code Registrar Application No: GR00/04

Contents

1. Introduction

On 12 September 2000 GPU GasNet Pty Limited (GPU GasNet) submitted to the Australian Competition and Consumer Commission (the Commission), for approval under the *National Third Party Access Code for Natural Gas Pipelines Systems* (the Code), revisions to the access arrangement for the Victorian Principal Transmission System (PTS) and associated supplementary access arrangement information.

An access arrangement describes the terms and conditions on which a service provider makes access to its pipeline available to third parties. The Commission will assess the proposed revisions to the access arrangement for the PTS and the supplementary access arrangement information against the principles in the Code.

The Commission issued its final approval for the PTS access arrangement on 16 December 1998. At that stage the system was respectively owned and operated by Transmission Pipelines Australia (Assets) Pty Ltd and Transmission Pipelines Australia Pty Ltd. The access arrangement came into effect on 1 March 1999. GPU GasNet acquired the PTS on 2 June 1999 and also operates the business. The access arrangement as approved by the Commission continues to apply to the system now owned and operated by GPU GasNet.

GPU GasNet proposes to expand the capital base of the PTS, and to amend the PTS reference tariffs, to take account of the Southwest Pipeline, on the basis that it passes the Code's system-wide benefits test. These assets were commissioned after approval of the PTS access arrangement and link the PTS with the Western Underground Gas Storage Pty Ltd (WUGS) facility at Iona and the Western Transmission System (WTS). The WTS is also owned by GPU GasNet. The Southwest Pipeline comprises the Southwest Link (from Lara (near Geelong) to Iona) and the Western System Link (from Iona to North Paaratte) and associated facilities. The figure at Appendix A illustrates GPU GasNet's transmission pipeline network.

GPU GasNet considers that the Southwest Pipeline is primarily an injection pipeline as it allows primarily for the seasonal injection of gas from the WUGS facility into the PTS, and for injections from the Otway Basin.

On 28 April 2000 the Commission issued its *Final Decision* to approve an earlier application by GPU GasNet to include the Interconnect Assets in the asset base of the PTS and to increase the reference tariffs on average by approximately ten per cent. The Interconnect Assets link the Victorian and NSW natural gas transmission systems and allow gas from Moomba in SA to be transported into Victoria and the potential for reverse flows. That application was also made on the basis of system-wide benefits.

This *Issues Paper* has been prepared to assist interested parties making submissions as part of the Commission's public consultation process, and uses information provided in GPU GasNet's proposed revisions and supplementary access arrangement information. In addition, it incorporates subsequent information provided by GPU GasNet to the Commission.

The *Issues Paper* identifies a number of issues raised by GPU GasNet's proposals. However it is not intended to be exhaustive or to replicate the details of the proposals. Interested parties are invited to make submissions to the Commission on any issues raised by, or relevant to, these revisions by Friday 15 December 2000.

All submissions should be in writing and, where possible, be supplied in electronic format compatible with Microsoft Word 97 for Windows. They will be made publicly available and placed on public registers held by the Commission and the Code Registrar. Any information considered to be of a confidential nature should be clearly marked as such, and the reasons for seeking confidentiality should be provided. Under the terms of the Code, the Commission must not disclose such information unless it is of the opinion that disclosure would not be unduly harmful to the legitimate business interests of the service provider, a user or a prospective user. Submissions should be addressed to:

Ms Kanwaljit Kaur
Acting General Manager
Regulatory Affairs – Gas
Australian Competition and Consumer Commission
PO Box 1199
Dickson ACT 2602

Copies of the proposed revisions to the access arrangement and the supplementary access arrangement information are available from the Commission's website at http://www.accc.gov.au (under 'Gas'). Copies of these documents may also be obtained from the Commission by contacting Ms Hema Berry (phone 02 6243 1274, fax 02 6243 1202, e-mail hema.berry@accc.gov.au). There is a $5 fee for disks and a $20 fee for photocopies. Requests for photocopies may also be directed to the Code Registrar (Level 19, Wakefield House, 30 Wakefield Street, Adelaide 5000; phone 08 8226 5786, fax 08 8226 5866); fees applicable will be according to the Code Registrar's determination.

Requests for hard copies of submissions lodged by interested parties should be directed to Ms Francine Adams at the Commission (phone 02 6243 1000, fax 02 6243 1199, e-mail francine.adams@accc.gov.au) or to the Code Registrar (phone 08 8226 5786, fax 08 8226 5866). While submissions may be inspected free of charge, a fee is payable for copies.

Any inquiries on this matter should be directed to the project manager, Mr Michael Walsh (phone 02 9230 9156, fax 02 9231 5652, e-mail michael.walsh@accc.gov.au), or the contact officer, Ms Nicole Moffatt (phone 02 9230 9115, fax 02 9231 5652, e-mail nicole.moffatt@accc.gov.au).

2. Revisions proposed by GPU GasNet

2.1 Purpose of revisions

GPU GasNet has proposed revisions under its extensions and expansions policy to incorporate the Southwest Pipeline, which are described below, in the PTS access arrangement. While the Southwest Pipeline now links the PTS and the WTS, the WTS is currently subject to a separate access arrangement. GPU GasNet has advised that it expects to apply to include the WTS in the PTS access arrangement by March 2001 when a new compressor station becomes operational at Iona which will boost westerly flows.

A new Southwest zone is proposed by GPU GasNet with the PTS capital base expanded by $75.5 million to include the Southwest Pipeline. GPU GasNet states that incremental revenue from the Southwest Pipeline would only be expected to cover part of the costs associated with these assets. GPU GasNet proposes to increase the reference tariff at the Longford injection point to recoup the balance of the capital and non-capital costs associated with these assets. The same injection tariff would apply at Longford and for the Southwest zone so that users of the PTS would be indifferent to the transmission price when sourcing their gas supplies.[1] A new peak withdrawal tariff and the current Metro 'Anytime' charge would apply on the Southwest zone.[2]

GPU GasNet proposed that the commencement date for the revised reference tariffs would be 1 October 2000. It has advised that a later revisions commencement date would not impact on the tariff calculations. Most importantly, all the incremental costs on the Southwest Pipeline would be recovered from the injection charges, which are applied from June to September (as is the Longford injection charge). While the calculation of the net present value (NPV) of revenues to be recovered would commence on 1 October 2000, the tariff would not be affected by any delay as the injection revenues

1 GPU GasNet does not expect substantial flows from Moomba in the immediate term.

2 Zonal injection and withdrawal charges based on five peak day demand are intended to recover fixed costs with anytime charges recovering variable costs.

commence on 1 June 2001. Users would receive rebates as appropriate for any charges applied between 1 October 2000 and 1 June 2001 that are inconsistent with the tariff approved by the Commission.

2.2 The Southwest Pipeline

These assets, which were constructed under direction by the Victorian Government following the September 1998 fire and explosion at the Longford processing plant, were commissioned in June 1999 and comprise:

- the Southwest Link, which is a 500 mm diameter gas transmission pipeline (with a capacity of 200 TJ/day) approximately 144 km long linking Lara (on the PTS) with Iona (near Port Campbell), the site of the WUGS facility. Associated pressure and flow control regulators at Lara and Brooklyn are necessary for the operation of the Southwest Link. The Brooklyn regulator, although not connected to the pipeline, is essential to the functionality of the Southwest Link; and
- the Western System Link, which is a 150 mm diameter gas transmission pipeline approximately 8 km long, connects the Southwest Link at Iona with the WTS at North Paaratte. It is associated with a regulator and a small compressor station, both located at Iona.

A number of new withdrawal points will be created on the Southwest Pipeline. GPU GasNet has identified possible off-takes at Colac and Simpson as well as withdrawals to refill the WUGS facility.

The Southwest Pipeline was built under an accelerated timetable in response to the Longford fire and explosion and as part of the broader Winter 1999 project to boost available gas supplies on the PTS by that peak demand period. Its primary role is to provide additional sources of gas supply on an on-going basis during winter peak demand periods. The Commission understands that in the short term nearly all of the winter eastward flows will be sourced from Longford gas stored in the WUGS facility. The North Paaratte reserves currently supplying the WTS are expected to be depleted in the medium term and would be unlikely to make a substantial contribution to supply into the PTS. GPU GasNet considers that there are good prospects for further gas field discoveries in the Otway Basin. It notes that Santos has developed the Mylor and Fenton Creek fields and is currently marketing the newly discovered Penryn field. In addition an intensive new exploration program is being planned and the Minerva field is awaiting development.[3]

The WUGS facility will have an injection capacity from 2001 of 200 TJ/day, of which 197 TJ/day is reportedly under contract from 2001 to 2004 (115 TJ/day in 2000).[4] Of the total capacity of 10 PJ, 8.6 TJ was reported to be contracted from October 2000. VENCorp forecasts that by 2004 peak demand for gas in Victoria in a 1 in 20 winter would be 1 222 TJ/day[5]. The Longford Pipeline (990 TJ/day) and the Interconnect (92 TJ/day)[6] would only partially meet this demand. While it is expected that summer refills of the WUGS facility generally will be sourced from Longford, VENCorp reported that some of the gas stored for the winter of 2000 was sourced from another Otway Basin well.[7]

GPU GasNet advises that the pipeline and facilities (with the exception of the Iona compressor) were constructed over a period of six months, rather than the standard of at least 18 months for a pipeline of this size.

GPU GasNet states that the Victorian Government compensated it for an amount of $7.3 million to cover additional costs incurred due to the accelerated timetable. GPU GasNet proposes that this amount be deducted from total construction costs of $82.8 million so that new facilities investment of $75.5 million would be rolled-in to the capital base. This approach is consistent with that adopted for the $2.2 million the Victorian Government contributed towards the Interconnect Assets.

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3 GPU GasNet Application for revisions to access arrangement, 11 September 2000, pp. 16-17.

4 VENCorp *Annual Gas Planning Review, 2000 to 2004*, 30 November 1999, pp. 14-15.

5 *Ibid*, p. 17

6 *Ibid*, p. 26

7 *Ibid*, pp. 14-15.

Table 2.1: Proposed roll-in of Southwest Pipeline costs

Component	Cost ($ million)[(a)]
Southwest Link	59.4
Western System Link	1.7
Lara regulator	3.9
Brooklyn regulator	4.1
Iona regulator	2.5
Iona compressor	3.9
Total	75.5

Source: GPU GasNet application, p. 26.
Note: (a) GPU GasNet has allocated interest during construction of $0.5 million over the assets.

2.3 Impact on reference tariffs

GPU GasNet estimates that the stand-alone five peak day tariff (excluding GST) needed to recover costs for the Southwest Pipeline would be in the range of $7-10/GJ which it states would make gas injections in the Southwest zone uncompetitive compared with the current tariff of $2.26/GJ for gas injections at Longford.[8] On an annual basis, the stand-alone tariff for a typical industrial end-user would be $0.12-0.17/GJ, $0.08-0.13/GJ higher than the current Longford equivalent of $0.04/GJ. The price differential for a residential market load would be higher at $0.16-0.26/GJ annually.

GPU GasNet considers that, in the case of the Southwest Pipeline, the economic feasibility test is difficult to apply, but that it passes the system-wide benefits test (see below). On this basis it seeks to expand the PTS capital base and amend the existing reference tariffs to reflect the actual costs of the Southwest Pipeline. GPU GasNet has estimated that its proposal would result in a 12.8 per cent increase in the NPV of revenues over the life of the pipeline system. Accordingly, users would on average face increased transmission charges commensurate with that amount over the period.

GPU GasNet proposes to use a form of backend loaded depreciation such that $8.2 million of depreciation would be deferred in the years 2000 to 2002 (compared with that implied by a real, straight-line depreciation schedule), with the target revenue being levelized during the subsequent 20 years. GPU GasNet states that this approach would significantly reduce the target revenue in the early years (when flows are lower) with a commensurate increase in later years. Under this approach the total new revenue requirement would be higher by 7.8 per cent in 2000 and by 8.7 per cent in 2001. Under a straight-line depreciation schedule the increases would be 13.0 per cent and 14.1 per cent respectively.

As noted earlier, GPU GasNet proposes that a new Southwest zone tariff and a Port Campbell injection tariff will be introduced, with the latter at the same level as an increased Longford injection tariff. Table 2.2 and Table 2.3 below present the revised tariffs proposed by GPU GasNet. The two injection charges would be based on the flows on the combined five peak days, and contribute sufficient revenue to reflect the capital costs of the Southwest Pipeline.[9] A matched injection factor equating to the entire charge would be offered to retailers on the WTS who can match demand in the WTS to injections at Port Campbell. A new peak withdrawal tariff and the current Metro 'Anytime' charge would apply on the

[8] GPU GasNet Application for revisions to access arrangement, 11 September 2000, p. 21.

[9] The Port Campbell area encompasses injection points from a number of fields including North Paaratte, Mylor, Fenton Creek and the WUGS facility at Iona. For tariff purposes, these sources would be treated as a single injection point to be designated as the Port Campbell injection point.

Southwest zone. Users on the Southwest Pipeline, and refills into the WUGS facility, would be eligible for a matched withdrawal rebate on any matched volumes injected at Port Campbell.[10]

Table 2.2: Current and proposed Longford and Port Campbell injection tariffs

For withdrawal in a transmission zone or at a transmission pipeline supply point	Transmission demand tariff component 1999 ($/GJ)[(a)]		Matched injection factor
	Current	Proposed	
All except LaTrobe and Lurgi transmission zones	2.4819	3.1862	
LaTrobe zone	2.4819	3.1862	0.293
Lurgi zone	2.4819	3.1862	0.324
WTS transmission pipeline supply point	2.4819	3.1862	1.000

Source: GPU GasNet application, Annexure 2, p. 16 and advice to the Commission, 15 September 2000.
Note: (a) 1999 tariffs for 5 peak day joint injection MDQ.

Table 2.3: Proposed Southwest Zone withdrawal tariffs ($/GJ)[(a)]

Transmission zone	Standard	Matched booking
Southwest	$0.1200	$0.0848

Source: GPU GasNet application, Annexure 2, p. 17.
Note: (a) 2000 tariffs, Transmission volume tariff component.

Table 2.4 below demonstrates the impact of the proposed reference tariffs on users. The incremental revenue requirement has been allocated into two parts – the part which is recovered from within the new Southwest zone, and the part which is recovered as additional revenue from the existing Longford zone. GPU GasNet considers that it is the increase in the existing Longford zone charge which is most relevant to the system-wide benefits test (see below), since it is this component which measures the extent to which the tariff proposal does not satisfy the economic feasibility test.[11]

Table 2.4 also shows:

- the percentage increase in the Longford tariff;
- the percentage increase in the revenues generated from the Longford pipeline, based on two scenarios of volumes on the Southwest Pipeline (the medium forecast splits the growth in load between Longford and the Southwest Pipeline, while the high forecast allows for maximum usage of the Southwest Pipeline, with the residual growth carried on the Longford pipeline); and
- the percentage increase in the total existing system revenues due to the incremental revenues on the Longford pipeline (but ignoring the revenues generated within the Southwest zone itself).

Table 2.4: Impact of proposed revisions on current revenues and tariffs (%)

	2000	2001	NPV over life
Total new revenue requirement over total existing revenues	7.8	8.7	12.8

[10] GPU GasNet Application for revisions to access arrangement, 11 September 2000, p. 23.

[11] GPU GasNet advice to the Commission, 20 September 2000.

Increase in Longford Tariff	35	39	
Increase in Longford revenues			
medium forecast	35	39	55
high forecast	28	35	50
Additional Longford revenues over total existing revenues			
medium forecast	4.5	4.9	7.9
high forecast	3.6	4.4	7.2

Source: GPU GasNet response to Commission, 20 September 2000.

The impact in 2000 and 2001 would be considerably less than over the life of the assets because of the deferred depreciation approach discussed below.

2.4 Proposed costs allocation

As noted above, GPU GasNet proposes that the current Longford injection tariff be increased and that a new Southwest zone tariff be introduced such that the two tariffs are at the same level and will contribute the appropriate revenue to reflect the costs of the Southwest Pipeline. No changes would be made to existing withdrawal and anytime charges. In addition, GPU GasNet proposes that $8.2 million of depreciation would be deferred in the years 2000 to 2002. Such a structure raises a number of cost allocation issues including:

- users would be expected to be indifferent to the gas source (assuming gas quality and price to be equal) with equal injection costs at Longford and from the Southwest Pipeline;
- the depreciation deferral would benefit users in the first years over users in later years; and
- recovery of all costs through increased injection charges would favour high load factor customers over low load factor customers such as households.

GPU GasNet notes that a stand-alone tariff for the Southwest Pipeline (that recovers the incremental capital and operating costs from the flows forecast on the pipeline) would be expected to be three to four times higher than the existing Longford injection tariff (the differential would depend on volume assumptions, the treatment of depreciation and contracted revenues). It considers that a large part of this difference is simply a vintage effect arising from the fact that the Longford pipeline is highly depreciated whereas the Southwest Pipeline is new capital. GPU GasNet notes that the pipeline from Longford to Pakenham (the asset which is recovered by the Longford injection charge) has a length of 141 km, which is similar to the length of the Southwest Pipeline from Iona to Lara of 144 km.

GPU GasNet notes that the original cost allocation methodology used to establish the PTS reference tariffs involved all assets being valued at their Optimised Replacement Cost (ORC), then those values were scaled down as a group so that the group value equalled the total Depreciated Optimised Replacement Cost (DORC) of all assets. This method effectively ignored the vintage of each asset and assigned the same proportion of depreciation to each asset irrespective of the actual age of that asset. Consequently, older assets were written down by the same proportion as relatively new assets.

GPU GasNet considers that this method would be in keeping with the original philosophy of the tariff model, and that it is generally accepted as a legitimate means for cost allocation where vintage bias is a concern. However, GPU GasNet states that this is not its preferred option as its effect would be to transfer the deemed Southwest Pipeline depreciation costs onto the withdrawal tariffs in all zones, whereas the decision to use the Southwest Pipeline is principally a choice of supply point between Port Campbell and Longford.

2.5 Tariff methodology

GPU GasNet states that all tariff calculations in its application utilise the same current cost accounting methodology as originally employed in the access arrangement. All asset values, depreciation charges and returns on assets are escalated at the CPI each year.

GPU GasNet proposes to use updated forecast injection volumes based on published VENCorp forecasts, its internal assessment of peak gas used in power generation and exports of 7–8 TJ/day into NSW based on current flows.[12] GPU GasNet states that this has no substantive effect on the revenues received by GPU GasNet as they are ultimately based on the delivered volumes. However, GPU GasNet considers that the approach presents users with a more reasonable and cost reflective injection tariff, and minimises the extent to which delivery tariffs will be adjusted through the price control procedures (as the revised forecast volumes will be more closely aligned to the actual expected flows). It is assumed that this load is supplied principally from Longford and the Southwest Pipeline, with small supplementary volumes provided from imports through Culcairn and injections of liquefied natural gas (LNG).

The proposed injection tariff for the Longford and Port Campbell injection points has been calculated using the following procedure:

1. calculate the sum of the revenue requirements of the Longford injection pipeline and the Southwest Pipeline for the years 2000 to 2002 inclusive;
2. forecast the combined injection volumes from Longford and Port Campbell on the five peak injection days;
3. levelize the tariff from 2001 to 2002 at an escalation rate of CPI; and
4. back-date the revised injection tariff to the year 1999. The tariffs for the years 2001 and 2002 are then determined by applying the modified price control procedures each year.

GPU GasNet notes that the original tariff for the Longford injection point was designed to recover the full revenue requirement of the Longford injection pipeline over the period 1998 to 2002 and that a levelized tariff (CPI-2.7%) was derived taking into account the forecast reduction in injections from 990 TJ/day (in 1998, 1999 and 2000) to 853 TJ/day (in 2001 and 2002). It states that, as the revenues for 1999 and 2000 are deemed to have been recovered at the published tariff, the appropriate revenue requirement for 2001 and 2002 is the forecast revenue based on the product of the published tariff (escalated each year at CPI-2.7%) and the forecast injection volume (from the existing tariff model). It notes that the published injection tariff slightly over-recovers the revenue requirement since a matched injection rebate is paid to withdrawals in the Latrobe and Lurgi zones, and that the forecast rebates are deducted from the forecast injection revenues to derive the revenue requirement.

The proposed revenue requirement for the Southwest Pipeline has been derived from the following financial and economic parameters:

- a capital investment of $75.5 million;
- commissioning of the South West Pipeline in June 1999 and the Iona compressors in March 2000;
- an opening asset value obtained by depreciating the capital investment from the commissioning date to the tariff commencement date, using real, straight-line depreciation;
- incremental annual operating and maintenance costs of $0.35 million;
- a pre-tax real weighted average cost of capital of 7.75 per cent; and
- an economic life ending in 2033 (as for the main assets of the PTS).

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[12] GPU GasNet Application for revisions to access arrangement, 11 September 2000, Annexure 3, p. 28.

2.6 Prudency of investment

As outlined in section 3.1 below, under the Code only new facilities investment that is prudent may be rolled-in to the regulated asset base. GPU GasNet provided a Capital Cost Benchmarking Analysis in support of its application.[13] The study compared the capital cost of the Southwest Pipeline with a range of oil and gas transmission pipelines built in Australia since 1980. GPU GasNet considers that the unit cost of $820/mmDia/km for the Southwest Pipeline is consistent with the norms of the last ten years (average of $812/mmDia/km with a standard deviation of $163/mmDia/km) and that results of the analysis demonstrate that it has met this requirement. Unit costs recorded for the earlier ten year period of the study were higher.

Nonetheless, GPU GasNet recommends caution in interpreting these data. It notes that the results show a wide range of dispersion about the mean which it states demonstrates that uncontrolled variables are present in the data. GPU GasNet gave the following examples of factors that can bear on the final construction cost:

- the level of development and land use en route;
- the number of road, rail and river crossings;
- the terrain;
- the foreign exchange rate; and
- the level of supply and demand for pipe and for construction crews.

GPU GasNet also states that the size of the Southwest Pipeline is appropriate:

> The selection of a pipeline with a diameter of 500 mm between Lara and Iona was made on the basis of the design capacity of the underground storage, the anticipated need for this capacity in the market, and the efficient development of this pipeline over time.
>
> The initial design capacity of the Western Underground Storage is understood to be 200 TJ/day (to be in place by winter 2001). This quantity can be delivered by a 500 mm pipeline but not by a 450 mm pipeline. The capacity of the 500 mm pipeline can be expanded to 300 TJ/day with additional expenditure on the Brooklyn loop, and to 415 TJ/day with installation of the Stonehaven compressor.
>
> A smaller pipeline option (such as a 450 mm pipeline) was rejected because it could not have carried 200 TJ/day without additional expenditure of at least $28 million for a partial Brooklyn loop. This cost is well in excess of the additional cost of a 500 mm pipeline.[14]

GPU GasNet stated that it is not aware of any benchmarking analysis that can be applied to facilities such as the compressor and city gates installed on the Southwest Pipeline whose costs are directly related to the specific design requirement of each facility. Nevertheless, GPU GasNet states that it believes that the costs of these facilities, after adjustment is made for the effects of accelerated design and construction, are reasonable and prudent.

2.7 System-wide benefits

PTS access arrangement extensions and expansions policy

Section 3.1 below outlines the PTS access arrangement extensions and expansions policy and related Code requirements. Briefly, GPU GasNet considers that its investment in the Southwest Pipeline:

- does not pass the economic feasibility test;[15]

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[13] *Ibid*, Annexure 5.

[14] *Ibid*, Annexure 1, p. 14.

- is prudent; and
- is eligible for roll-in to the capital base on the grounds that it generates system-wide benefits that justify a higher tariff for all users.

System security benefits

GPU GasNet considers that two aspects of system security benefits need to be taken into account:

- system security benefits provided in the winter of 1999; and
- on-going system security benefits.

Following the September 1998 fire and explosion at Longford the Victorian Government initiated a number of projects to provide additional security of supply in case gas production at Longford did not return to full capacity before peak demands were experienced in the winter of 1999. The principal projects designed to secure alternative sources were the Moomba-Melbourne Augmentation Project (MMAP)[16] and the Southwest Pipeline. GPU GasNet describes the potential contribution of these projects as follows:

> The Southwest Pipeline was constructed at government direction under an accelerated schedule, and linked with accelerated field development work at North Paaratte, Mylor and Fenton Creek, and the installation of additional gas processing capacity at Iona. The entire project was designed to supply at least 100 TJ/day into the Principal Transmission System by winter 1999.
>
> The Southwest Pipeline (supplying 100 TJ/day) and the Moomba-Melbourne Augmentation Project (supplying 92 TJ/day) together provided a delivery capacity of at least 192 TJ/day during winter 1999, sufficient to satisfy the bulk of the shortfall from Longford in the event that Gas Plant No. 1 did not return to production.[17]

GPU GasNet notes that the Longford plant did return to full production for the winter of 1999, but considers that the Southwest Pipeline provided a critical element in the planning for system security for that winter in the context of uncertainty associated with supply from Longford at that time. On this basis it states that the system security benefits of the Southwest Pipeline (and the MMAP) were established in the planning for the winter of 1999. GPU GasNet estimates the value of these benefits accruing from the Southwest Pipeline was in the range of $80 million to $3.2 billion.[18]

GPU GasNet identifies on-going system security benefits in that the Southwest Pipeline could, if necessary, supply the entire needs of the WTS (either from the WUGS facility or from Longford), or deliver at least 200 TJ/day (compared with the Longford deliverability of 990 TJ/day) to the PTS to supply Melbourne and country centres. GPU GasNet considers that the Southwest Pipeline provides a high level of enhanced system security in the event of:

- a failure at the Bass Strait wells or gathering lines;
- a failure at the Longford gas processing plant;
- a failure of the Longford to Dandenong pipeline (which it notes is unduplicated for one third of its length);
- a failure of the LNG facility during peak shaving operations (which it notes is relied upon for up to 150 TJ/day); and

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15 In addition to GPU GasNet's assessment that incremental revenue would only be expected to cover part of the costs of the assets, as there is currently no reference tariff for the Southwest Pipeline, it is not clear as to which reference tariff would be applicable if the assets passed the economic feasibility test.

16 The Commission assessed the MMAP in part when approving roll-in of the Interconnect Assets.

17 GPU GasNet Application for revisions to access arrangement, 11 September 2000, p. 12.

18 *Ibid*, p. 14. GPU GasNet has followed the same estimation methodology as it used for its Interconnect Asets revisions application.

- a failure at the North Paaratte processing plant or associated wells or gathering lines.

GPU GasNet considers that the Southwest Pipeline supplements the security provided by the Interconnect and the LNG facility, but that it allows a significantly greater quantum of protection. It states that the security benefits can range from fewer involuntary curtailments during a partial supply failure (such as the June 1998 'ice-plug' incident), to the support of critical loads and the maintenance of minimum system pressure during a total supply collapse (such as occurred in September 1998). GPU GasNet estimates the value of these benefits to be in the range of $40 million to $400 million.

Competition benefits

GPU GasNet believes a fundamental issue of gas reform in Victoria (and elsewhere) is the market power of the incumbent producers. It comments that Esso-BHP has had a virtual monopoly on gas supply in Victoria for 30 years and that its market power has been largely undiminished by the gas market reforms introduced by the Victorian Government. While reforms such as the introduction of three foundation gas retailers and, later, Energex with access to shares of the on-going gas supply contract between Esso-BHP and GASCOR have the potential to set a cap on gas prices GPU GasNet is concerned about the level of peak deliverability that is available. It comments:

> However, whilst the gas contracts make available a significant quantity of gas at a contract price to each of the three retailers, it is our understanding that there are limits to the amount of peak deliverability that is available. Given that the load in Victoria is very peaky and requires a firm supply, and given that firm peak deliverability from Esso-BHP is limited, it follows that Esso-BHP still retains considerable market power. In theory, in the absence of additional sources of peak supplies into the market, a producer in such a position may be able to use this market power to influence the price of gas and the growth of the gas market.[19]

GPU GasNet notes that upstream reform has been identified as a potential source of increased producer competition both between and within basins but that it appears these reforms will take some time to develop. In the shorter term it considers the most appropriate means to introduce competition to the gas supply market are through connections to new gas basins and new sources of peak and seasonal supplies. It contends that the Southwest Pipeline contributes in both ways.

In the context of gas flows to and from NSW via the Interconnect and to NSW through the EGP GPU GasNet notes that competitive pressures are expected to develop on the commodity price of gas from Esso-BHP. GPU GasNet states:

> The Southwest Pipeline connects the Victorian market to the gas fields at Port Campbell. This allows gas owned by other producers to compete in the market against gas from Bass Strait, and further enhances the competitive pressures on Esso-BHP. There are good prospects for further gas field discoveries in the Otway Basin. Santos has developed the Mylor and Fenton Creek fields, and is currently marketing the newly discovered Penryn field. An intensive new exploration program is being planned.
>
> The presence of the Southwest Pipeline (and a reasonable tariff on this pipeline) must act to stimulate further exploration in this region. In the absence of a pipeline connection to Melbourne, the likelihood is that small fields would not be economic to develop, and therefore exploration would not occur (small field developers could not afford to build a stand-alone pipeline connection to Geelong, nor could the Western zone absorb more than a small level of production).
>
> The Minerva field is awaiting development, and this field could also utilise the Southwest Pipeline for carriage of some or all of the reserves to the Victorian demand centres. This field is permitted to BHPP, but to the extent that BHPP is distinct from the Esso-BHP Joint Venture in Bass Strait, there may be some prospect of further competitive pressure on Bass Strait.[20]

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[19] *Ibid*, p. 15.

[20] *Ibid*, p. 16.

GPU GasNet states that retailers currently obtain firm gas supply during periods of peak demand by use of the existing peak delivery rights under the Esso-BHP contract, the use of LNG to shave the 'needle peak', and by limited imports of Moomba gas, and that the former two sources of peak supply are almost fully utilised. Further, it is GPU GasNet's understanding that peak supply entitlements from Bass Strait will be reduced in 2001. To meet their peak delivery needs, the retailers must source more gas from Moomba, purchase additional peak delivery rights from Esso-BHP at Longford, or purchase capacity in the WUGS facility.

GPU GasNet states that the WUGS facility will be able to contribute up to 200 TJ/day in the winter of 2001 in direct competition with the peak deliverability provided by the Esso-BHP producers at Longford, and that it will significantly diminish their market power. GPU GasNet contends that a competitive tariff is required on the Southwest Pipeline to facilitate this competition.

2.8 Retailers' take-or-pay obligations

GPU GasNet states that it will offer to relieve the three foundation retailers of certain take-or-pay obligations if the Commission approves the roll-in proposal as presented in its application. GPU GasNet has advised that these obligations relate to five year contracts between GPU GasNet and the three foundation retailers for gas transportation associated with their contracted use of part of the planned WUGS facility capacity and that the contract tariff is significantly higher than that proposed in GPU GasNet's application.[21]. GPU GasNet has advised the Commission that it considers certain details of these contracts are commercially sensitive and has requested that the Commission consider them on a confidential basis.[22] The Commission will consider these claims as part of its assessment of the proposed revisions.

[21] GPU GasNet advice to the Commission, 9 November 2000.

[22] GPU GasNet advice to the Commission, 17 November 2000.

3. Commission approval of revisions

Section 2 of the Code sets out the consultative process the Commission must follow when reviewing revisions to an access arrangement that would result in changes to the reference tariffs. The Commission must issue a draft decision on the revisions after considering submissions from interested parties. The Commission will then request submissions on the draft decision before issuing its final decision.

Pursuant to section 2.46 of the Code, the Commission may approve the proposed revisions only if it is satisfied the access arrangement as revised would contain the elements and satisfy the principles set out in sections 3.1 to 3.20 of the Code (the mandatory elements). Conversely, the Commission must not refuse to approve revisions solely for the reason that the revised access arrangement does not address a matter that sections 3.1 to 3.20 do not require an access arrangement to address.

In assessing proposed revisions, the Commission must take into account the provisions of the access arrangement and the following factors which are described in section 2.24 of the Code.

(a) the Service Provider's legitimate business interests and investment in the Covered Pipeline;

(b) firm and binding contractual obligations of the Service Provider or other persons (or both) already using the Covered Pipeline;

(c) the operational and technical requirements necessary for the safe and reliable operation of the Covered Pipeline;

(d) the economically efficient operation of the Covered Pipeline;

(e) the public interest, including the public interest in having competition in markets (whether or not in Australia);

(f) the interests of Users and Prospective Users;

(g) any other matters that the Relevant Regulator considers are relevant.

3.1 Relevant Code and access arrangement provisions

This section identifies sections of the Code and provisions of the PTS access arrangement which are specifically relevant to the revisions proposed by GPU GasNet.[23]

New facilities investment

Section 8.15 of the Code allows for the capital cost of new facilities investment to be incorporated into the capital base at the start of a new access arrangement period in recognition of costs incurred in the provision of services. Alternatively the service provider may submit revisions to this effect during the access arrangement period in which new facilities investment was made.

Pursuant to section 8.16(a), the amount by which the capital base can be increased is the actual capital cost of the investment provided that the investment is prudent. That is, it does not exceed the amount that would be invested by a prudent service provider acting efficiently, in accordance with accepted good industry practice, and to achieve the lowest sustainable cost of delivering services. This is the 'prudent investment test'.

In addition, the new facilities investment must meet one of the following conditions:

[23] Section 2.46(b) of the Code requires the regulator to take into account the provisions of an access arrangement when assessing proposed revisions.

- the 'economic feasibility' test: that anticipated incremental revenue is expected to exceed the cost of the investment (section 8.16(b)(i));
- the regulator is satisfied that the new facility generates system-wide benefits that justify a higher reference tariff for all users (section 8.16(b)(ii));[24] or
- the new facility is necessary to maintain the safety, integrity or contracted capacity of services (section 8.16(b)(iii)).

As noted, GPU GasNet submits that its new facilities investment is prudent (section 8.16(a)) and satisfies the system-wide benefits test (section 8.16(b)(ii)).

In assessing the prudency of an investment, the regulator must consider factors such as economies of scale, the increments with which capacity can be added, and the matching of forecast demand and capacity over a reasonable time frame to achieve the lowest sustainable cost of delivering services (see section 8.17 of the Code). The Commission is also guided in its assessment by other principles and criteria set out in section 8 of the Code.

The Code allows an access arrangement to provide that the service provider may undertake new facilities investment that does not satisfy section 8.16.[25] If this is the case, the capital base may be increased by that part of the investment that does satisfy section 8.16 (the recoverable portion). Section 8.19 allows an access arrangement to provide that the balance of the investment may be placed in a speculative investment fund, of which any part may subsequently be included in the capital base provided section 8.16 is satisfied.

Capital contributions and surcharges

A capital contribution or a surcharge from users of a new facility can recover any part of the balance that does not meet all the criteria in section 8.16. It is explicitly noted, in section 8.23 which relates to capital contributions, that nothing in the Code prevents a user from agreeing to pay a charge higher than the reference tariff '… in any circumstance including, without limitation, if the excess is paid in respect of funding a New Facility'. Sections 8.25 and 8.26 deal with surcharges that may be levied on users of incremental capacity to recover some or all of the costs that cannot be recovered at the prevailing tariffs. The portion of the new facilities investment to be recovered by a surcharge must meet the prudent investment test of the Code.

Victorian Code provisions

The Commission approved the PTS access arrangement in December 1998 under the *Victorian Third Party Access Code for Natural Gas Pipeline Systems* (the Victorian Code). Sub-section 24A(3) of the *Gas Industry Acts (Amendment) Act 1998* provides that access arrangements approved under the Victorian Code continue to be subject to sections 3, 8 and 9 (so far as it applies to sections 3 and 8) and to sections 2.33 and 2.48A of the Victorian Code. These sections are not subject to the corresponding provisions of the Code until the first scheduled review of the access arrangements under section 2 of the Code. GPU GasNet's application does not cite these provisions.

Extensions and expansions policy

Under section 3.16 of the Code an access arrangement is required to contain an extensions and expansions policy. The Commission has previously assessed the extensions and expansions policy in the PTS access arrangement.[26] The revisions proposed by GPU GasNet must comply with this policy in addition to the above mentioned provisions of the Code.

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[24] The Code (section 10.8) distinguishes between users and end-users. In the instance of the PTS, users contract directly with GPU GasNet while end-users acquire gas from users.

[25] In accordance with section 8.18 of the Code, clause 5.7.2 of the PTS access arrangement allows new facilities investment that does not meet the criteria in section 8.16 of the Code to be undertaken.

[26] See ACCC, *Victorian Final Decision*, 6 October 1998, pp. 138-145.

Clause 5.7.1 of the PTS access arrangement extensions and expansions policy provides that, in general, an extension or expansion to the PTS will be covered by the access arrangement. Clause 5.7.1(c) provides that GPU GasNet may exclude certain extensions from coverage, which are referred to as significant extensions. While the Southwest Pipeline meets the requirements of a significant extension according to the policy, GPU GasNet has chosen to seek its inclusion in the PTS access arrangement.

New facilities investment that passes the economic feasibility test is able to be included in the capital base and existing reference tariffs are applied (clause 5.7.2(a)). New facilities investment that does not meet the economic feasibility test can be recovered under clause 5.7.2(b) of the PTS access arrangement. The portion of the investment that meets the economic feasibility test can be recovered by the existing reference tariffs. The remaining portion can be:

- recovered by a surcharge under section 8.25 of the Code;
- recovered by a capital contribution;
- included in a speculative investment fund; or
- any combination of these options.

Clause 5.7.2(c) of the PTS access arrangement provides that new facilities investment that does not pass the economic feasibility test may be recovered outside the standard procedure.[27] This may occur where either: the regulator is satisfied that the new facility generates system-wide benefits that justify a higher reference tariff for all users; or the new facility is necessary to maintain the safety, integrity or contracted capacity of services. As noted earlier, GPU GasNet submits that its new facilities investment of the Southwest Pipeline satisfies the system-wide benefits test (section 8.16(b)(ii) of the Code and clause 5.7.2(c)(1) of the PTS access arrangement).

[27] 'Standard procedure' refers to the options in clause 5.7.2(b) as outlined above.

4. Issues for consideration

This section identifies a number of issues that interested parties may wish to address when preparing submissions for consideration by the Commission. The list is not intended to be exhaustive and interested parties are invited to raise any issues considered relevant to the Commission's consideration of the revisions.

The Commission's current review is of the proposed revisions to the reference tariffs and is not intended to extend to the broader issues considered at the time the PTS access arrangement was approved in 1998. These issues will be re-assessed as part of the review of the access arrangement when GPU GasNet submits revisions pursuant to section 3.17 of the Code in 2002.

4.1 Prudency of investment

GPU GasNet believes that the design and construction of the Southwest Pipeline satisfies this test and has provided benchmark analysis that supports these claims.

- Is the benchmark analysis appropriate to the Southwest Pipeline?
- Are the Longford peak deliverability limitations identified by GPU GasNet sufficient to warrant construction of the Southwest Pipeline?
- Is the level of service provided by the assets appropriate?
- Could the same level of service be achieved for lower cost using the same or an alternative approach?

4.2 Economic feasibility

GPU GasNet has submitted that the Southwest Pipeline does not pass the economic feasibility test as anticipated incremental revenue on a stand alone basis would not be expected to exceed the cost of the investment. In other words, charges set at a level designed to generate adequate incremental revenue would be unsustainably high.

- Has GPU GasNet accurately assessed the level of charges on the Southwest Pipeline that would be sustainable?

4.3 System-wide benefits

GPU GasNet has submitted that the Southwest Pipeline provides (system security and competition) system-wide benefits and that all users of the PTS should contribute to the actual capital costs of these assets (other than for injections at Culcairn).

- How relevant are the system security benefits identified by GPU GasNet?
- Are system security benefits enjoyed by users of the WTS relevant to the current assessment?
- How relevant are the competition benefits identified by GPU GasNet?
- Who are the main beneficiaries of the Southwest Pipeline? Do benefits accrue broadly across the users and end-users of the PTS? Are any existing or prospective participants (for example, gas suppliers) particularly advantaged?
- Does the Southwest Pipeline generate sufficient system-wide benefits to justify increased tariffs for all users? Is GPU GasNet's quantification of system-wide benefits reasonable?
- To what extent, if any, should benefits accruing from the new facilities investment in the Interconnect Assets (which have already been rolled-in to the capital base) be considered in the current assessment?

4.4 Costs allocation

Under GPU GasNet's proposals, all of the capital costs of the Southwest Pipeline would be recovered from increased injection charges. The existing Longford injection charge would be increased, and a new Port Campbell injection charge would be introduced at the same level. All users of the PTS (other than if a user did not inject at Longford or Port Campbell) would contribute to the costs of these assets.

- Is the proposed cost allocation methodology appropriate? Would application of the overall PTS cost allocation methodology (based on ORC relativities) or some other approach provide a more appropriate alternative?
- Are equal injection charges at Longford and Port Campbell necessary and sufficient to encourage use of the WUGS facility and inter-basin competition? If equal charges are appropriate, should they also apply for injections at Culcairn?

4.5 Proposed tariff structure

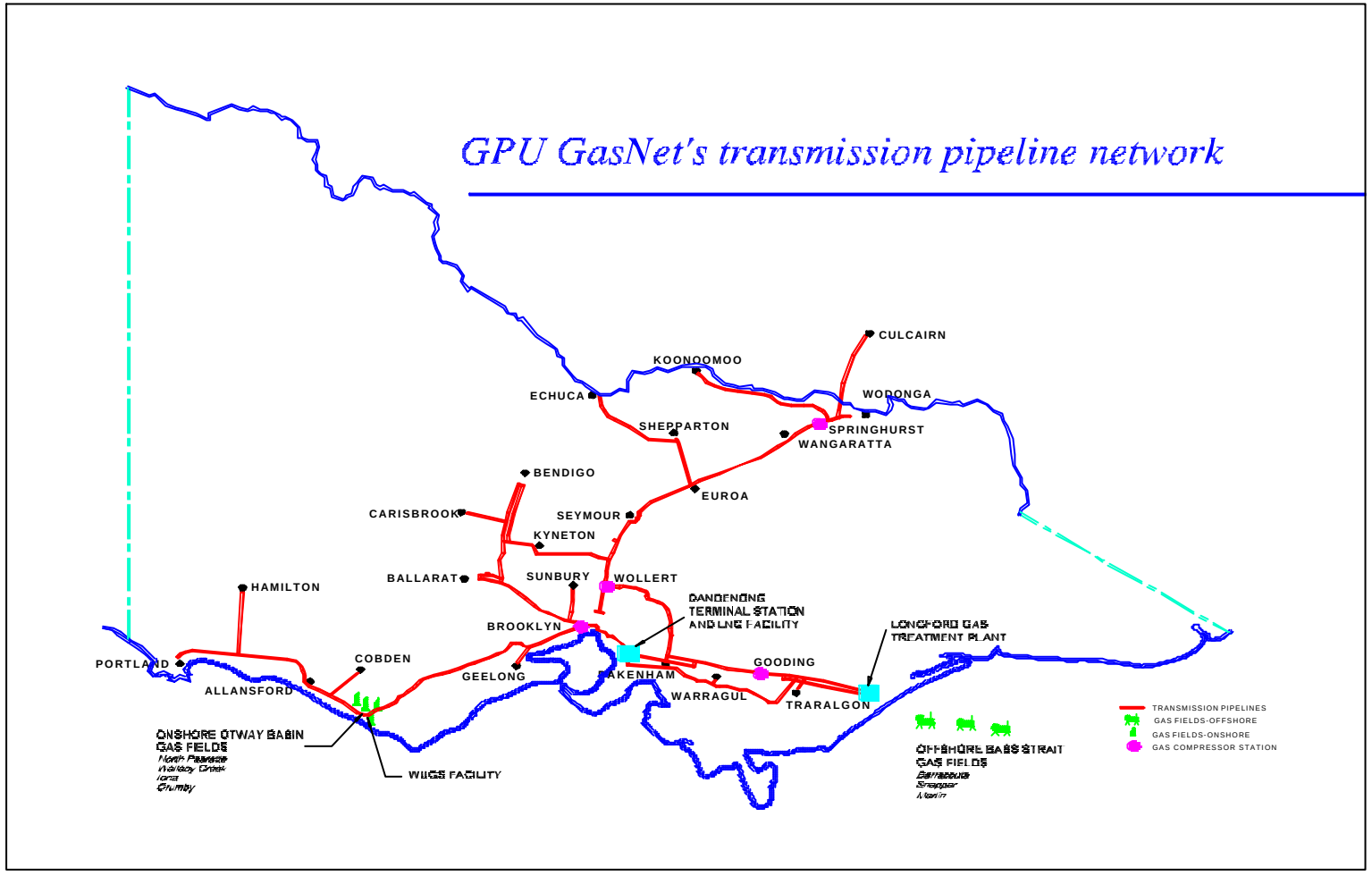
Under the proposed tariff structure the costs related to the Southwest Pipeline would be recovered through an increase in the Longford injection charge (other than for $0.35 million a year of operations and maintenance costs which would be recovered through Anytime charges). The increase in the proportion of revenue collected from peak charges would comparatively favour high load factor customers.

- Does recovery of the costs associated with the Southwest Pipeline through increased injection charges reasonably reflect the distribution of benefits associated with these assets?
- Is the proposed tariff structure efficient and equitable? If not, what would be a more appropriate structure to generate the same amount of revenue?

4.6 Other issues

Interested parties are invited to raise any other issues that are relevant to the Commission's review of the proposed revisions to the PTS access arrangement.

Appendix A: GPU GasNet's gas transmission system



Source: GPU GasNet application.