GOLDFIELDS GAS PIPELINE

SUPPLEMENTARY SUBMISSION REGARDING AMENDED DRAFT DECISION

Submitted to the

Economic Regulation Authority

23 November 2004

1. INTRODUCTION

The Authority issued its Amended Draft Decision (**ADD**) on the proposed Access Arrangement for the Goldfields Gas Pipeline (**GGP**) on 29 July 2004. The ADD proposed not to accept the Access Arrangement proposed by GGT and proposed a number of amendments that would be required for the Authority to approve the Access Arrangement submitted by GGT in December 2002.

On 8 October 2004, GGT submitted its initial submission in response to the ADD. At the time of lodging that submission, GGT indicated that it would be lodging a revised Access Arrangement pursuant to s.2.15A of the Code together with detailed analyses and information in support.

The revised Access Arrangement for the GGP was lodged on 17 November 2004. This supplementary submission provides information in support of the initial capital base, rate of return and non-capital costs proposed in the revised Access Arrangement, and further addresses the matters the ADD identified as being the reasons for requiring certain amendments to the Access Arrangement.

GGT believes that the revised Access Arrangement represents a reasonable balance of the interests of Service Provider and Users. In particular, it recognises, through the establishment of the initial capital base, the benefits and rights established under the prior regime and avoids the 'claw back' of those benefits which would occur if the initial capital base were set below the economic depreciated value of the GGP. GGT is also proposing a rate of return which is within the range of values produced by a conventional application of the Code methodologies.

The revised Access Arrangement is proposed to cover the period 2005-2009. Revised and updated information and forecasts for that period will be provided on or shortly after the date of this submission. The ADD indicated that establishing the Access Arrangement for this period was acceptable, and GGT concurs with this given the role of an Access Arrangement as a forward looking statement of the terms and conditions on which Users can obtain access to the GGP.

2. INITIAL CAPITAL BASE

2.1 Proper value for initial capital base

As set out in GGT's submission of 8 October 2004, the ADD contains a number of errors which result in an understated range for the initial capital base and which led to an incorrect value for the initial capital base. When those errors are corrected, the minimum value for the initial capital base is $672.0 million ($1999) being a value which provides for recovery of capital expenditure over the assumed life of the pipeline and also recognises the circumstances of the development of the pipeline and subsequent introduction of the Code.

Any value for the initial capital base which is less than this amount would fail to comply with the Code as it would not properly recognise the Service Provider's legitimate business interests and would result in a subsidy to Users which is inconsistent with the concept of the Code. As the Tribunal recognised in the *MSP Case*[1]:

> *"… EAPL may be seen to have received a bargain or a windfall. However, as our earlier discussion of the Code shows, the primary quest is for a proper contemporaneous value from which to deduce a tariff that will replicate a hypothetical competitive market. It is not to provide subsidies to customers. Pricing below a tariff based upon true value would not replicate a competitive market." [para 34]*

This proposed initial capital base is regarded as consistent with the Code and represents a fair balance between the owners and users of the pipeline in that users will pay the cost of the pipeline over its life.

2.2 ADD's reasons for requiring amendment of ICB

In the ADD, the Authority relied on the following reasons for setting the initial capital base at a value in excess of the amount which was understood to be the depreciated actual cost, and almost equivalent to the amount understood to be the economic depreciated value:

[1] Application by East Australian Pipeline Limited [2004] A CompT 8

(a) the public interest in avoidance of sovereign risk in the regulation of infrastructure assets should be accorded substantial weight in establishing an initial capital base reflecting past capital recovery of the GGP; and

(b) the value of the initial capital base originally proposed by GGT ($452.6 million at 31 December 1999) did not give sufficient recognition to this public interest and therefore did not conform to the principles of the Code.[2]

The public interest in the avoidance of sovereign risk to investors in infrastructure assets was recognised as being of such importance that it justified establishing an initial capital base for the GGP which fell outside the range (as determined in the ADD) referred to in section 8.11 of the Code. The ADD recognised that a factor to be given substantial weight in the balancing of GGT's legitimate business interests, and the interests of users and the public interest, was the set of expectations created by the tariff regime administered by the Government of Western Australia in accordance with the State Agreement. In the Authority's view, this set of expectations justified an initial capital base above the estimated value of DAC. GGT considers this view to be correct, and that it should apply generally to significantly inform the decision on the value of the initial capital base after proper consideration of all section 8.10 factors.

In particular, the ADD recognised the implications of sovereign risk to investors in infrastructure assets by giving significant weight to the economic depreciated value of the GGP. In paragraph 219 of the ADD, the Authority noted:

> *"… the Authority also considers that there is a public interest in not seeking to "undo" past determination of tariffs under the State Agreement as this could potentially create a perception of sovereign risk in dealings with the Government of Western Australia, and adversely affect future business activity and investment. Consideration of the public interest in this respect would coincide with the legitimate business interests of GGT, and the interests of GGT's owners, in retaining the past benefits gained by charging of the tariffs determined under the State Agreement and which remain in place until commencement of an Access Arrangement. As noted in relation to section 2.24(a) of the Code, the Authority is of the view that the value of the initial capital base that would reflect this interest is $495 million at 31 December 1999 …"*

The Authority described the value of $495 million as a value recognising section 8.10(f) of the Code and recognising this public interest. GGT considers that in order to achieve this objective which the ADD correctly recognises as significant, it is necessary to set the initial capital base at no less than the properly calculated economic depreciated value, namely $672.0 million.

2.3 ADD consideration of incorrect values for DAC and DORC

As set out in GGT's submission of 8 October 2004, and discussed further below, the values for DAC and DORC are significantly above those considered in the ADD.

In the ADD, the range of DAC to DORC was considered to be $434 million (DAC) and $407 million (DORC). The correct values are $500.5 million (nominal) (DAC) and $540.3 million (DORC) ($1999).

As incorrect values for DAC and DORC were taken into account in the ADD, the conclusions in the ADD which relied on those values or which were informed by consideration of those values are incorrect and must be reconsidered.

2.4 Section 8.10(a) – DAC

In the case of the GGP, the actual capital cost of the pipeline is the value under section 8.10(a). The actual capital cost of the GGP was $500.5 million (nominal). If adjusted to reflect inflation from completion of construction to 31 December 1999, the actual capital cost is $522.7 million.

The value referred to in section 8.10(a) is the result obtained by taking this actual capital cost, and subtracting the accumulated depreciation charged to users (or thought to have been charged to users) prior to commencement of the Code. As set out in GGT's submission of 8 October 2004, the wording of the section is clear: the accumulated depreciation which has been charged to users prior to commencement of the Code is to be subtracted from the actual capital cost. If there has been no depreciation charged to users, there is nothing to be subtracted, and the required value is simply the actual capital cost. Section 8.10(a) is not worded in a way which permits any addition to, or other adjustment of, actual capital cost. In particular, it does not

[2] ADD, paragraph 234.

permit the addition of any unrecovered asset value to the actual capital cost of the pipeline in the way contemplated by the Authority. Where there has been no depreciation charged to users, or where there has been an under-recovery of capital, there is no adjustment to the actual capital cost.

It is therefore necessary to determine what depreciation was charged, or can reasonably be considered to have been charged, to users of the GGP prior to commencement of the Code.

The ADD calculations of DAC assume that those who invested in the GGP accepted a return on their investment that was significantly lower than the return the original owners expected when they committed to build the pipeline. However, there is no basis on which the Authority can reasonably conclude that the investors did accept a significantly lower rate of return. They expected a return consistent with the approved proposals under the State Agreement and there is no basis on which it can be assumed that the investors subsequently formed a view that they were prepared to accept a lower return over the life of the project (as discussed further in section 2.6(c) below). When the correct rate of return is factored in to the calculations, there is no depreciation charged to users prior to commencement of the Code. In these circumstances, the value referred to in section 8.10 (a) is $500.5 million.

2.5 Section 8.10(b) – DORC

As noted above, the ADD proposed a DORC for the GGP of $407 million at 31 December 1999. This DORC was based on an optimised replacement cost ("ORC") of $432 million, and on an asset life of 65 years.

Optimised Replacement Cost

As noted in its submission of 8 October 2004, GGT considers that an ORC of $432 million understates the true optimised replacement cost of the pipeline. It appears that the report prepared for the Authority fails to recognise the constraints imposed on pipeline design by clause 9(5) of the State Agreement. Accordingly, in the absence of reasonable grounds to assume that a new pipeline being built today would not be subject to the same constraints, the report is incorrect in its optimisation of the pipeline and its conclusions should therefore not be taken into account by the Authority.

Furthermore, the consultant's estimate of ORC omits the cost of financing construction from the costing of a replacement pipeline. It is standard both in business generally and also in regulatory practice that the cost of interest during construction is treated as part of the replacement cost of an asset. For example, while the ACCC disputed several features of the ORC estimate prepared for EAPL in relation to the Moomba Sydney Pipeline, the Commission did not dispute the inclusion of a component for interest during construction. This is a significant omission in the ORC report relied on in the ADD, and confirms that the report should not be relied upon by the Authority. Given the importance of the ORC value, and the time which has elapsed since commencement of the process, GGT therefore commissioned a new assessment of replacement cost from Venton and Associates ("Venton"). A copy of the Venton report is attached.

Venton was instructed to establish a replacement cost for the pipeline that currently exists using December 1999 and also current (September 2004) prices. As there is no suggestion that the design of the pipeline in 1996 was not optimised, or that a significantly different design would have been adopted had the pipeline been built in 1999, the report by Venton can be taken as representing an optimised replacement cost for the pipeline.

As the attached report demonstrates, Venton estimated a replacement cost of $586.3 million for the GGP configured as it was in 1999 and using 1999 pipeline construction data. Venton's estimate of the 2004 replacement cost for the GGP was $739.2 million, including the Wiluna and Paraburdoo compressor stations.

Depreciated Optimised Replacement Cost – straight line method

Using the ORC of $586.3 million ($1999), and adopting the conventional straight line derivation of DORC, the DORC of the pipeline was $540.3 million as of 31 December 1999. This assumes an economic life for the pipeline of 70 years, commencing from the grant of the licence in mid 1994.

NPV DORC

Since the decision of the Tribunal in the *MSP Case*, it can no longer be accepted that the straight line methodology is the preferred or only methodology to determine the DORC of an asset under the Code.

The economic rationale for determining the DORC was considered in detail before the Tribunal. GGT submits that the Authority is obliged to take into account, and should act consistently with, the decision of the Tribunal in that case, including the obligation it placed on a regulator under the Code to make a proper effort to derive a depreciated optimised replacement cost using a net present value method ("NPV DORC") for the pipeline.[3]

The question of whether the Authority is bound, legally, by the findings of the Tribunal is addressed in Attachment A to the ADD. Regardless of whether this analysis is correct and the Tribunal's decision is not legally binding on the Authority, GGT submits the findings of the Tribunal must be considered in the establishment of an initial capital base for a covered pipeline under the Code. The reasons which led the Tribunal to find that a proper attempt should have been made by the ACCC to determine an NPV DORC for the MSP apply equally to the task of the Authority in determining the ICB for the GGP. Even if the Authority were to form the view that it is not required to take an NPV DORC value into account under section 8.10(b), GGT submits that such a valuation could, and should, be considered under section 8.10(k).

Where there is no difference between the findings of the Tribunal and the Supreme Court in the *Epic Decision*[4], the Authority should observe the Tribunal's findings. The only basis on which the Authority could properly disregard the Tribunal's decision would be where there is a clear distinction between the circumstances of the MSP and the GGP. In GGT's view, there is nothing in the case of the GGP to make the findings and observations of the Tribunal irrelevant or distinguishable.

GGT notes that the concept of NPV DORC was not argued before the Supreme Court in the *Epic Decision*. There is therefore no inconsistent reasoning between the Supreme Court and the

[3] *MSP Case*, at paragraph 38
[4] *Re Michael; Ex parte Epic Energy (WA) Nominees Pty Ltd & Anor (2002)* 25 WAR 511

Tribunal on the issue of whether or not the Authority is obliged to take account of the NPV DORC value in establishing the initial capital base for a regulated pipeline. Attachment A of the ADD therefore does not provide compelling reasons why a regulator under the Code, in any jurisdiction, does not have to take account of NPV DORC. There is no basis to form the view that NPV DORC is not relevant in the application of the Code in Western Australia. There is no basis to read down the Tribunal's decision in this way and to do so would be erroneous.

GGT is aware that an appeal has been lodged against the decision of the Tribunal in the *MSP case*. However, unless and until the Tribunal's findings are overturned on appeal, the Tribunal's decision is the authoritative decision on DORC under the Code. Given the current state of knowledge and information regarding the proper interpretation of DORC under the Code GGT submits that it would be an incorrect exercise of discretion under section 8.10 for the Authority to fail to take into account a value, or range of values, for NPV DORC.

Using reasonable assumptions, and based on the replacement cost of $586.3 million, the NPV DORC is approximately $580 million at 31 December 1999.

2.6 Economic value recognising section 8.10(f)

(a) Economic depreciated value

In its 17 December 2002 submission, GGT proposed establishing the initial capital base of the GGP at the economic depreciated value of the pipeline.

The economic depreciated value is calculated by adjusting the capital cost of the pipeline to reflect capital recovery or under-recovery from the time it began providing gas transportation services to the date of commencement of the access arrangement. Determination of the value of the GGP in this way makes explicit use of the tariffs which were set in the past, and historical returns to GGT. It is therefore a value which must be taken into account under section 8.10(f) of the Code.

As recognised in the ADD, the calculation is "highly sensitive to the methodologies and assumptions used in making it".[5] The principal factors that affect the value obtained are:

(a) whether the calculation is undertaken in nominal or real values;

(b) the assumed rate of return;

(c) revenues;

(d) capital expenditure;

(e) the value of working capital; and

(f) operating expenditure.[6]

GGT agrees with the Authority that these factors are relevant to the assessment of economic value. However, as discussed below, GGT submits that the approach taken by the Authority to the application of several of these factors is incorrect. Also, GGT had mistakenly used incorrect amounts for revenues in its December 2002 submission, and this incorrect information was also relied upon by the Authority in its calculation of economic depreciated value. When the errors in the ADD approach are corrected, and correct information is used in relation to revenues earned by the pipeline, the ADD's proposed economic value of $495 million is clearly incorrect and the proper value is $672.0 million.

(b) Nominal or real value

For GGT's 17 December 2002 submission, the economic value of the pipeline was calculated using nominal values. Consistency required that a nominal rate of return be applied to a nominal asset value to calculate the return on the investment in the pipeline which was used to determine the (nominal) recovery of capital. Under section 8.5A of the Code, the service provider may elect to adopt calculations in either real or nominal terms. There is therefore no basis on which the Authority can preclude this approach.

[5] ADD, paragraph 91.
[6] ADD, paragraph 92.

In its modelling, GGT applied a nominal rate of return consistent with the manner in which GGT has previously determined tariffs. The rate of return embodied in the approved proposals under the State Agreement was also a nominal rate of return.

At the time of the approved proposals (1995) there was an expectation that the rate of inflation would be 4.0 percent.

In paragraph D5 of Appendix D of the ADD, the Authority observed that actual inflation since 1994 had been lower than 4.0%. As a result, the Authority concludes that, by assuming a rate of return of 18.81%, GGT was compensated for inflation at a rate in excess of the actual rate. The Authority noted that the nominal calculation gave rise to an economic value substantially in excess of the value derived from a calculation using real values with an equivalent real rate of return.[7]

After reviewing the determination of tariffs in 1994, and information relating to the 1998 discounted tariffs, the Authority argued that, although the tariff calculations were in nominal terms, a real approach was actually intended. This was, in the Authority's view, evidenced by the fact that, in both cases, the base tariffs to be applied in determining charges were to be escalated for actual inflation, effectively insulating investors from inflation risk. The Authority concluded:

> *" … a real approach to calculation of capital recovery is consistent with the tariff models used by GGT under the regulatory regime put in place by the State Agreement."*[8]

GGT is of the view that this conclusion is incorrect. The tariff determination approved in 1995 was intended to provide tariffs that were, apart from inflation adjustment, fixed at a given level over the life of the GGP. A long-term view of inflation (inflation averaging 4.0 percent over project life) was taken for the purpose of determination of an initial tariff. To calculate the amounts to be paid by users, this initial tariff was then to be adjusted (quarterly) by actual inflation. At times, actual inflation would be below 4.0 percent and, other things being equal,

[7] Amened Draft Decision, Appendix D, paragraph D5.

there would be a risk of under-recovery of costs. At other times, actual inflation would be above 4.0 percent and, other things being equal, the possibility of over-recovery of costs would arise.

In these circumstances, allowing the tariff to escalate at actual inflation was not indicative of an intended real approach. It was entirely consistent with a nominal approach and an expectation that, over the longer term, inflation would average 4.0 percent. If, over the longer term, inflation averaged 4.0 per cent, the tariff would, other things being equal, recover the costs of the GGP. This position did not change with the subsequent offering of discounted tariffs.

If the same expectation of inflation is adopted in each case, the economic value of the GGP obtained from the nominal values calculation proposed by GGT will be the same as the economic value obtained from the real values calculation used by the Authority.

(c) Assumed rate of return to 1 January 2000

At paragraphs D10 to D12 of Appendix D, the ADD discussed the appropriate benchmark cost of capital with reference to which the recovery of capital is to be determined. The Authority's conclusion in this regard is set out at paragraph D12 as follows:

> *"Given this background, the Authority has formed the following views on the WACC value that reflects the past determination of tariffs.*
>
> - *For the period from commencement of construction of the pipeline (1994) to 31 December 1997, it is appropriate to assume a WACC value corresponding to the rate of return that GGT assumed in its tariff model as the appropriate WACC for that period. This WACC value reflects GGT's actual expectations, as evidenced by the financial model used to determine tariffs.*
>
> - *For the period 1 January 1998 to 31 December 1999, it is appropriate to assume a WACC value corresponding to the return implied by GGT's financial model used to determine tariff discounts. Again, this WACC value reflects GGT's actual expectations as evidenced by the financial*

[8] ADD, Appendix D, paragraph D9.

model used to determine tariffs. The Government had advice that the WACC estimates were excessive, but did not pursue a lower value and a correspondingly lower tariff.

- *For any period after 31 December 1999, it is appropriate to assume a WACC based on GGT's expectations for this period being either the continued use of either the WACC that GGT assumed in its financial model used to determine tariff discounts (for the period to December 2001), or financial model used to determine the A1 tariff (for the period after December 2001)."*

In making this assessment, the Authority has assumed that each time GGT offered discounted tariffs, the joint venturers' overall expectations in respect of rate of return for the project were reduced, and that this presumed reduced expectation should be used for the purposes of determining a benchmark cost of capital. For the reasons set out below, this assumption and all conclusions arising from it are incorrect.

The approved proposals under the State Agreement incorporated not only the approved tariff setting principles, but also the A1 tariffs and the economic parameters used to derive those tariffs. These economic parameters included a derivation of the nominal pre-tax WACC for the project of 18.81% per annum. This is discussed in more detail in the attached confidential submission entitled *'Legitimate Business Interests and Reasonable Expectations under the Goldfields Gas Pipeline Agreement Act 1994 Approved Access Arrangement'*.

The 1995 approved proposals were never amended under the terms of the State Agreement, nor were the approved tariffs or tariff models ever formally redetermined. Accordingly, the tariff proposals of 1995 (including the economic parameters referred to above) remain the only approved proposals for the purposes of tariff setting under the State Agreement. As acknowledged in paragraph 178 of the ADD, these approved tariffs were entrenched under the previous regime and created legitimate expectations that they would continue into the future. These approved proposals are also essential aspects of the existing access arrangements which were deemed by section 97(1) of the *Gas Pipelines Access (Western Australia) Act 1998* to be an

approved Access Arrangement under the Code until 1 January 2000. It is therefore not possible for the Authority to now act as if there had been re-determination of tariffs.

More importantly, however, tariff setting principle 13 allowed the joint venturers to offer discounted tariffs from time to time at their sole discretion. The mere fact that the joint venturers exercised this right in offering discounted tariffs provides no justification for the Authority to assume there was a reduction in their overall rate of return expectations.

> The fact that the joint venturers did not reduce their return expectations is made clear in the correspondence provided by GGT to the Department of Resources Development (**DRD**) at the time the A2 discount tariffs were offered.
>
> **[*CONFIDENTIAL*]**

It is clear from this correspondence that the assumption in the ADD that the offering of discounted tariffs reflected a reduction in the joint venturers' overall rate of return expectations is a conclusion which cannot be sustained. For the Authority to rely on that conclusion in reaching its view of the economic depreciated value of the pipeline, would be an error of fact and unreasonable. Similarly, any conclusions which relied on that incorrectly derived economic depreciated value would be erroneous.

All of the tariff discounts offered by the GGT since the date of the approved proposals were made in the context of anticipated load growth in the near future. Furthermore the tariff discounts were offered for temporary periods. Further detail in this regard is set out in the attached confidential submission.

In summary, there is no evidence on which the Authority can conclude that the offering of discounted tariffs during the period in question correlated with any change on the part of the joint venturers in their expectations as to the overall rate of return to be derived from the project. Indeed, there is clear evidence that this was not the case. To draw such a conclusion as proposed in the ADD is tantamount to rewriting the approved proposals and this never occurred. This

would have serious sovereign risk implications which the Authority indicated in the ADD it is keen to avoid.

In the circumstances, the ADD is erroneous in adjusting the value to be applied to the benchmark cost of capital for the period after 1 January 1998. The appropriate WACC value is 18.81% for the whole period from commencement of construction of the pipeline (1994) to the date of valuing the ICB.

(d) Revenues

The revenue adopted by GGT in the economic value calculation of its 17 December 2002 submission was the "notional revenue" of the pipeline. Notional revenue is not reflective of the actual revenues received by the owners of the pipeline, nor of the amounts paid by users over the life of the pipeline. It is an artificial amount, calculated by assuming that the original owners always paid the published tariff from time to time, applied to volumes nominated for the year ahead, and not on any predetermined "contractual" volumes, and that third parties paid tariffs equivalent to A1. This overstated the revenues because:

- it failed to reflect the discount of 7.5% available to the original owners during the period that the pipeline was owned by them;
- it did not rely on contracted volumes to calculate the revenues for the original owners;
- it failed to reflect the actual, lower tariffs paid by original owners following the sale of their respective interests in the pipeline; and
- it failed to reflect the actual, lower tariffs paid by third party users.

In the ADD, the Authority sought to correct this in part by assuming that the original owners benefited from the 7.5% discount. This conclusion was reasonable on the basis of information provided to the Authority at that time.

The notional revenue used by GGT in its 17 December 2002 submission was incorrect for the purposes of calculating the economic depreciated value of the GGP. Even allowing for the corrections proposed in the ADD, the revenue adopted by the Authority is not reflective of revenue actually paid by users. As the concept of an economic depreciated value requires consideration of the capital returned (or unrecovered) over the life of the asset, use of these incorrect revenues produces an incorrect economic depreciated value.

The estimate of capital recovery used in the calculation of economic depreciated value should be based on the best estimates available of the actual capital recovery by replacing, wherever possible, the notional revenue with the revenue actually received by the GGP owners determined as follows.

Over the period 1996 to 1999, the total revenue earned from the GGP comprised:

(a) gas transportation revenues from initial Joint Ventures WMC Resources, Normandy Pipelines, and BHP;

(b) gas transportation revenues from Duke Energy, which acquired BHP's interest in the pipeline;

(c) gas transportation revenues from third parties; and

(d) revenue from other fees and charges.

Gas transportation revenues from third parties, and revenues from other fees and charges have, since the commencement of gas transportation service using the GGP, been the actual revenues received by GGT.

For the period prior to sale of the pipeline, it is not appropriate to take as the revenue paid by the original owners either the "notional revenue" or any amounts which may have been the subject of inter-company charges. In relation to inter-company charges, GGT understands that the view of the prior owners was that such revenues are not considered relevant as they do not represent the arrangements set out in relevant Gas Transportation Agreements.

Instead, the most appropriate values for revenues are derived through estimating what the owners could be expected to have paid had the pipeline been externally owned during that period. GGT has effected this using information provided to the Department of Resources Development. In a letter to the Department dated **[*CONFIDENTIAL*]** the then manager of GGT advised that the original owners had a load factor of **[*CONFIDENTIAL*]** "based on history to date". Accordingly, GGT has estimated the revenues from the Initial Joint Venturers by applying a load factor of **[*CONFIDENTIAL*]** to the actual volumes delivered at each of their delivery points. The tariffs applied in this estimation of revenues were the applicable published tariffs at the time (ie A1 from 1996 to the end of February in 1998, A2 from March 1998 to the end of June 1999, and A3 from July 1999 to 31 December 1999), to which the 7.5% discount was applied.

For WMC and Newmont, this estimation of revenue applied until **[*CONFIDENTIAL*]** For BHP it applied until the end of 1999.

From the time transportation contracts were established for WMC and Newmont, commencing in the **[*CONFIDENTIAL*]** GGT has determined the revenues based on the provisions of the actual transportation contracts.

GGT's December 2002 estimate of revenue from the GGP for the period prior to 31 December 1999 was $268.3 million. This figure includes notional and third party revenues and was before any allowance for discounts. Replacing the undiscounted notional revenue with actual revenue or with revenue estimated as described above, GGT's revenue for the period from 1996 to the end of 1999 is $189.1 million.

(e) Working capital

In its 17 December 2002 submission, GGT determined the working capital requirements of the GGP as being the funding required to support 45 days of capital and operating expenditures. This amount was $2.6 million.

GGT has subsequently reviewed its earlier figures for working capital (and, in particular, those in the tariff model supplied on 17 December 2002). Its revised figures for the period quarter 2, 1996 to 31 December 1999 average approximately $1.3 million.

GGT submits that its current determination of the working capital requirements of the GGP should be taken into account to establish the economic depreciated value, rather than the values adopted in the ADD.

(f) Linepack

In its previous submissions, GGT did not include the value of the pipeline linepack in any of the valuations supporting its proposals for the initial capital base of the GGP. The cost of gas for linepack is a component of the capital investment in an operating pipeline system, and should be taken into account in the revised calculation of economic depreciated value.

Historical records indicate a build up of linepack following the commencement of transportation services in quarter 4 of 1996, levelling off at around 570 TJ during 1999. This build up, requiring investment of approximately $1.1 million by 31 December 1999, has now been taken into account in the economic depreciated value of the GGP, and in establishing the initial capital base.

(g) Operating expenditure

In its 17 December 2002 submission, GGT did not include, any allowance for the corporate costs of the owners, or their costs of managing their interests in the GGP. In consequence, the Authority made no allowance for owners' costs in its calculations.

On the basis of work undertaken to identify the amount of these costs for the proposed Access Arrangement Period, GGT estimates that internal ownership and corporate costs of the participants as being $1.9 million in 2004. For the purposes of calculating the economic depreciated value, GGT has included an amount of $3.9 million for the period prior to 31 December 1999.

GGT submits that these owners' costs must be taken into account to properly establish the value of the GGP as they represent part of the non-capital costs incurred in the ownership and operation of the pipeline.

(h) Conclusion on economic value

In its 17 December 2002 submission, GGT calculated the economic depreciated value of the GGP at 31 December 1999 at $568.4 million.

The economic depreciated value of the GGP at 31 December 1999, as proposed in the ADD, was $495.1 million.

GGT submits that the economic depreciated value in its 17 December 2002 submission, must be adjusted to take into account more accurate value for the revenues generated by the GGP prior to 31 December 1999, and to reflect more accurate costs for that period. When these adjustments are made, the economic depreciated value of the pipeline at 31 December 1999 is $672.0 million.

Similar adjustments must be made to the $495.1 million of the ADD.

Taking into account more accurate values for the revenues generated by the GGP prior to 31 December 1999 increases the economic depreciated value of the pipeline as calculated in the ADD to $542.0 million.

Adjusting for GGT's current calculations of working capital requirements, owners' costs and of the value of linepack, further increases the economic depreciated value as calculated in the ADD to $548.2 million.

Finally, to properly establish the economic depreciated value of the GGP, the ADD value must be adjusted to recognise GGT's longer term expectation of inflation, and to its expected rate of return for the period from commencement of construction to 31 December 1999. Recognising these two factors increases the economic depreciated value at 31 December 1999 from $548.2 million to $672.0 million.

When the calculation of the economic value of the GGP is corrected by using more accurate data the economic value of the pipeline at 31 December 1999 is $672.0 million. Accordingly, as the proposed initial capital base of $480 million in the ADD was heavily informed by consideration of the incorrect economic depreciated value, the Authority must reassess the value of the initial capital base. For all the reasons discussed above, that value must be no less than $672.0 million.

2.7 Tariffs for new pipeline

The Venton report estimates that the replacement cost of the GGP in 2004 would be $739.2 million ($2004). If the pipeline were to be developed today, it would be necessary for the

owners to recover that cost over the life of the new pipeline. In contrast, under GGT's proposed ICB of $672.0 million, which is depreciated to $650.6 million in 2004, assuming the same rate of return is applied to a new pipeline as to the GGP, this would necessarily result in tariffs which are higher than those proposed by GGT.

GGT has commissioned a report on the Hypothetical New Entrant Tariffs from Network Economics Consulting Group and will provide this report to the Authority as soon as it is received.

GGT submits that it is reasonable to take into account capital cost which would be payable by users if the pipeline were to be developed today.

2.8 Conclusions on ICB

As acknowledged in the ADD, there is great potential for sovereign risk if the Code is applied in a manner which deprives the owners of the pipeline of the benefits legitimately and lawfully gained under the previous regulatory regime, and it is necessary to determine an initial capital base which does not have this consequence.

The errors contained in the ADD resulted in an understated range for the initial capital base. When those errors are corrected, a minimum value for the initial capital base is $672.0 million as at December 1999, being a value which recognises the circumstances of the development of the pipeline under the previous regime.

Any value for the initial capital base which is less than this amount would fail to comply with the Code as it would not properly recognise the service providers legitimate business interests and would result in a subsidy to users such that they would not pay the capital cost of the pipeline over its life.

3. RATE OF RETURN

3.1 Authority's reasons for requiring amendment to ROR

Paragraph 713 of the ADD required that the reference tariff for the GGP be revised to reflect a pre-tax nominal rate of return of 10.81%. GGT maintains, for the reasons set out below, that the Authority has erred in its reasoning on rate of return.

In this section of the submission, GGT sets out the basis for the amendment it has made to the rate of return to be used in determining the reference tariff of the revised Access Arrangement for the GGP, and specifically addresses the matters identified in the ADD as being the reasons for requiring amendment.

Paragraph 258 of the ADD notes that the return which is commensurate with prevailing conditions in the market for funds and the risk involved in delivering the reference service cannot be observed, and must be estimated and forecast for the regulatory period. Although the ADD recognises that there is statistical uncertainty associated with estimation and forecasting, it argued that "it is necessary to identify a unique, single, or "true" cost of capital" in order to derive a total revenue which can be used to consider whether the proposed reference tariff complies with the Code. Introducing a range of values at each point of the rate calculation would, according to the ADD, produce a meaningless process by which to evaluate the proposed reference tariff. Section 8.2(e) therefore requires that the rate of return "reflect the *best* estimate of the true cost of capital".

GGT's approach was reviewed, in paragraphs 265 – 325 of the ADD. In these paragraphs, the Authority considered, for each of the parameters used in the rate of return calculation, the value proposed by GGT. In each instance, the Authority found the value proposed by GGT to be inappropriate, and advanced its own value for the parameter.

The rate of return parameters considered in paragraphs 265 – 325 were:

(a) risk free rate and inflation rate;

(b) market risk premium;

(c) equity beta;

(d) cost of debt;

(e) gearing; and

(f) taxation.

After examining GGT's proposals on the risk free rate (paragraphs 265 – 270), the ADD concludes that neither GGT's proposed rate in its December 1999 proposal, nor the proposal in its December 2002 submission, is consistent with the requirements of the Code. The Authority continues, in paragraph 271 of the ADD:

> *"Rather, the Authority takes the view that the best estimate of the risk free rate is derived by taking an average of bond rates over a number of consecutive trading days and, in the absence of any submission to the contrary, is of the view that an average over 20 consecutive trading days is appropriate. For the 20 trading days to 30 June 2004, the averages of observed rates of return on 10 year government bonds indicate a nominal risk free rate of 5.89 percent, a real risk free rate of 3.20 percent and an implied future inflation rate of 2.61 percent."*

On market risk premium, paragraph 273 of the ADD concludes that GGT's proposed value of 6.5 percent is inconsistent with past regulatory decisions under the Code. The ADD notes evidence on the market risk premium compiled by the Essential Services Commission of Victoria (paragraph 274), and summarises Australian historical estimates (in paragraph 275). The large standard errors reported with the estimates are noted, together with the difficulty that these pose for making inferences about a forward-looking market risk premium. In view of this, and other difficulties with historical estimates, the ADD turns (in paragraph 278) to the results of a survey of the views of financial market participants for support for a market risk premium of 6.0 percent. In paragraph 279, the ADD concludes:

> *"Taking this information into account, the Authority is of the view that a value of 6.0 percent, consistent with past regulatory practice in Australia and contrary to the value of 6.5 percent proposed by GGT, is the best estimate of the market risk premium."*

After examining GGT's arguments concerning the value of beta for the GGP, the ADD concluded, in paragraph 288, that there was no justification for a value established other than on the basis of observed values from other comparable pipeline companies. The limited amount of

empirical evidence available indicated, however, low asset betas for Australian utilities. Furthermore, the ADD expresses the view that major Western Australian gas transmission pipelines may be exposed to a greater level of systematic risk than transmission pipelines and gas distribution systems in other states. In view of the limited evidence, the positions taken by other Australian regulators on the basis of this evidence, and the view taken on systematic risk, the ADD concluded that an appropriate value of the asset beta for the GGP was 0.65.

The ADD adopted a debt margin of 120 basis points for the GGT. In this regard, the ADD:

(a) noted that CBA Spectrum data on the margin for 10 year bonds with a BBB+ credit rating over the yield on the benchmark 10 year Commonwealth Government Treasury Bond (inclusive of bank fees of 5 basis points) was around 168 basis points;
(b) examined more recent CBA Spectrum data and found that by the end of April 2004, the indicator rate for a BBB+ rated bond was in the order of 105 basis points;
(c) recognised that CBA Spectrum indicator rates should be treated with caution because the rates provided by the service are not actual market observations but rather a prediction of yields based on an econometric model;
(d) also considered yields on bonds issued by regulated utilities, which suggest a debt margin between 40 and 105 basis points; and
(e) considered that an allowance of 12.5 basis points for debt issuance costs (based on the ACCC's findings in its determination on GasNet Australia's transmission revenues) was appropriate.

In respect of the appropriate gearing of the GGP, the ADD found that the debt to assets ratio of 50% proposed by GGT was not supportable, and advised that regulators under the Code had generally approved a ratio of 60%.[9] This ratio, the ADD noted, was supported by studies undertaken by the Victorian Essential Services Commission, and by more recent data for Australian pipeline companies.[10] The ADD acknowledged the problem of the lack of data for "pure play" regulated pipeline businesses, but found, on the basis of the observed gearing levels

[9] ADD, paragraphs 312 and 313.
[10] ADD, paragraph 313.

of only two companies (gearing levels which were very different) that 60% was reasonable for the GGP. There was no attempt revealed in the ADD to understand the significant difference in the gearing of the two pipeline companies, or to consider whether one was more appropriate than the other as an indicator of a reasonable level of gearing for the GGP.

Although a number of assumptions concerning taxation must be made for the purpose of determining the rate of return on an investment in a gas pipeline system, a critical assumption made in the ADD concerned the valuation of the franking credits available to shareholders under the dividend imputation provisions of the Australian taxation system. GGT had proposed that the valuation of the credits (measured by the factor γ) be zero. In paragraph 325 of the ADD, it was argued that regulators under the Code had generally adopted a value of 0.50 for γ, based on a 1999 study by Hathaway and Officer. Accordingly, the Regulator concluded that this value was appropriate for the GGP.

The Authority's estimates of the rate of return parameters for the GGP were summarised in paragraph 326 of the ADD, and the rates of return calculated from those parameters (rates which were considered to be consistent with the Code) were set out in the tables of paragraphs 327 and 328. The only further reasoning set out in the ADD for establishing its rate of return parameters and the rates of return calculated from those parameters was set out in the opening sentences of paragraph 326:

> *"For the reasons set out above, the Authority does not consider that the Rate of Return proposed by GGT for the GGP meets the requirements of the Code as a best estimate of the cost of capital for the GGP over the Access Arrangement Period."*

For each of the key parameters used in determining the rate of return for the GGP, the ADD finds the parameter value proposed by GGT to be inappropriate, and substitutes its own value. The ADD either provides little or no reasoning supporting the substitution (risk free rate, equity beta) or justifies the change by reference to regulatory precedent (market risk premium, gearing, and taxation – valuation of franking credits). In the case of the margin component of the cost of debt, the ADD provided little support for its rejection of the value proposed by GGT, but did provide some reasoning in support of its alternative parameter value.

The following sections address the reasons in the ADD for requiring an amendment to the proposed rate of return. In addition, GGT refers to the submissions set out in section B of its submissions dated 8 October 2004.

3.2 *GasNet* and the assessment of proposed Rate of Return

As previously submitted in a letter from GGT's legal representatives dated 7 October 2004, the approach taken in the ADD to the assessment of the proposed rate of return in the Access Arrangement is inconsistent with the decision of the Tribunal in *Re: GasNet Australia (Operations) Pty Ltd* [2003] A CompT6. That decision indicates that the Authority has misconstrued the Code in the reasoning adopted in the ADD by:

(a) considering it is bound to adopt a single, uniquely correct outcome for the proposed rate of return for the purposes of assessing a reference tariff under section 8;

(b) not having regard to a possible range of outcomes for the proposed rate of return; and

(c) as a result of the above, failing to determine whether the proposed Access Arrangement, in its treatment of the rate of return, is consistent with the provisions of sections 8.30 and 8.31 of the Code, and whether the proposed rate of return falls within the range of rates commensurate with the prevailing market conditions and relevant risks.

The Authority has responded to these assertions in a letter to Minter Ellison dated 26 October 2004. Notwithstanding the comments made in the Authority's letter, GGT remains of the view that the Authority has erred in its approach, and that a different approach must be adopted in assessing GGT's revised Access Arrangement in order to ensure that the final decision is a valid exercise of the Authority's powers.

3.3 Relevance of approved proposals under State Agreement to ROR

In section 2.6(c), GGT has addressed the relevance of the approved proposals under the State Agreement to the determination of the benchmark cost of capital used to determine the recovery

of capital for the purposes of establishing the initial capital base. The attached confidential submission also sets out in detail the matters relevant to the assessment of the joint venturers' legitimate business interests and reasonable expectations under the State Agreement access regime.

GGT contends that the interests and expectations arising from the State Agreement regime are also highly relevant to determining the forward looking rate of return to be applied for the purposes of determining the reference tariff allowable in the access arrangement under the Code. Section 8.30 of the Code requires the Authority to have regard to 'the risk involved in delivering the Reference Services', and section 2.24(a) requires the Authority to take into account 'the legitimate business interests and investment in the covered pipeline'. The flexibility of section 8.31 also makes it clear that the Authority is not limited to basing its calculations on 'a financing structure that reflects standard industry structures for a growing concern.' The Authority is entitled to adopt 'other approaches… where it is satisfied that to do so would be consistent with objectives contained in section 8.1'.

Section 8.1(a) establishes the objective of:

> *"… providing the Service Provider with the opportunity to earn a stream of revenue that recovers the efficient costs of delivering the Reference Service over the expected life of the assets used in delivering the Reference Service;"*

Paragraph 219 of the ADD expresses the view that:

> *"there is a public interest in not seeking to "undo" past determination of tariffs under the State Agreement as this could potentially create the perception of sovereign risk in dealings with the Government of Western Australia and adversely affect business activity and investments. Consideration of the public interest in this respect would coincide with the legitimate business interests of GGT and the interests of GGT's owners, in retaining the past benefits gained by charging of tariffs determined under the State Agreement and which remain in place until the commencement of an Access Arrangement."*

Paragraph 232 reiterates the point that there is 'a significant public interest in avoiding sovereign risk to investors in infrastructure assets when a new regulatory regime is implemented.' GGT strongly supports the Authority's concerns with respect to the potential adverse effects on business activity and investment, but contends that these apply equally to GGT's legitimate business interests and expectations on a forward looking basis, as they do to the retention of past benefits. Both the original and subsequent owners of the GGP relied heavily on the State Agreement, and the proposals approved thereunder, in making their respective investment decisions.

In paragraph 257, the Authority interprets section 8.30 of the Code:

> *"… to require that the implied return factored into the assessment of the price controls for a pipeline owner's regulated activities reflects the opportunity cost of capital associated with those activities, that is, the returns that the pipeline owners would have to make to providers of debt and equity funds to motivate the provision of funds."*

For a long lived capital intensive asset such as a pipeline, opportunity cost can only be properly measured when the investment decision is being evaluated. Once committed, the investment is sunk and cannot be retrieved. In the case of the GGP, the three original owners were all mining and processing companies (not utility investors) with a suite of alternative mining and processing projects to invest in. These companies participated in a competitive process run by the State Government and successfully argued for a specific rate of return as representing the true opportunity cost of capital relevant to the development of the GGP. The Minister endorsed this rate of return prior to the decision to proceed with construction, and this served as the basis for the investment.

In paragraph 258, the ADD concluded that *'section 8.2(e) of the Code requires the rate of return to reflect the best estimate of the true cost of capital'*. GGT contends that the most realistic estimate of the true cost of capital for the GGP is that incorporated in the original proposals approved under the State Agreement. To prefer a rate of return derived from economic theory over the rate of return agreed at the time and in the context of the original investment, is to ignore a real world competitive outcome.

In all but the most unusual cases, capital is a scarce commodity within private sector firms. In other words, there are more investment opportunities available than there are funds to satisfy them. Consequently, capital is, of a necessity, 'rationed' so that the more attractive investment opportunities are allocated capital at the expense of the less attractive opportunities.

It is reasonable to assume that at the time the decision to proceed with construction of the GGP was taken, the joint venturers were in the position of having to ration their capital. It is unlikely that any of these firms were seeking to place surplus funds 'at any cost'. As a consequence, the rate of return deriving from the GGP project – as envisaged at the time of irreversible commitment of construction funds and agreed between the joint venturers and the State of Western Australia, and embodied in the approved proposals – represents the opportunity cost of capital at the time the GGP was constructed. This rate of return was to be realised through the application of agreed tariffs.

This rate of return was what the ADD identifies at paragraph 257 as the return 'that the pipeline owner would have to make to providers of debt and equity funds to motivate the provision of these funds'. Importantly, the Rate of Return, as realised through the application of agreed tariffs, reflected the agreed view of the project as a whole, and not the restricted application of the CAPM or any other theoretical model or construct.

By way of illustration of the above point, the original owners and the State agreed that project specific risks should be explicitly recognised. This is made clear in tariff setting principle 2 which states (in part) that the 'commercial rate of return' delivered by tariffs set under the State Agreement 'shall be commensurate with the business risk associated with the project'. The reference to 'business risk associated with the project' clearly identifies a risk beyond that accommodated by strict application of the CAPM.

In dismissing the issue of project specific risk and determining the Rate of Return applicable to the GGP solely on a theoretical application of the CAPM, the Authority has not followed the specific direction provided in section 8.30 of the Code, which requires consideration of the 'risk associated with delivering the reference service', whose extent is specifically defined as 'any' risk.

In this regard, the ADD also fails to take into account the joint venturers' 'legitimate business interests in the Covered Pipeline' as required under section 2.24 of the Code. The GGP was developed under the terms and conditions of the State Agreement following competitive tender for the opportunity to pursue the project, and included the provision of surplus pipeline capacity at the sole expense and hence risk of the project's proponents in order to fulfil public policy objectives. The explicit recognition in the tariff setting principles of project specific risk constitutes a key aspect of the owners' 'legitimate business interests'.

Accordingly, the rate of return on which the construction of the GGP was predicated reflects the reasonable expectations of both the pipeline owners and the State Government. These issues are set out in more detail in the confidential attachment to this supplementary submission.

3.4 Economic arguments in support of maintaining original approved ROR

Economic theory also supports the continuation of the rate of return embodied in the approved proposals under the State Agreement.

When investors commit resources to a project, that commitment involves an opportunity cost – which is defined as the highest return they could secure by using elsewhere the funds they instead commit to the venture. They must expect to recover at least this amount if the project is to proceed.

Accordingly, the appropriate point in time in which the relevant risks of the project should be evaluated is the time at which the commitment of funds to the project is engaged. It is at that time that the opportunity cost is incurred, and it is with respect to the opportunities that are then foregone that the opportunity cost needs to be assessed.

The costs for which compensation must be expected cannot be altered by the mere fact of subsequent sale or transfer of the asset in which those costs are embodied. Rational decision makers will capitalise into the decision they make at the moment of choice the anticipated consequences of that choice, that is, the stream of subsequent outflows the decision causes.

This is also made clear by Macquarie Bank in its report for the ACCC on *Issues for Debt and Equity Providers in Assessing Greenfields Gas Pipelines* (May 2002), where it states that valuation must reflect 'the time of the initial assessment', for otherwise:

> *" … the concept of maintaining revenues on the basis of expectations held at the time of financial close would be lost."*

The report of Davis and Handley to the ACCC (*Cost of Capital for Greenfields Investments and Pipelines*, 2002) also accepts that it is the situation at the time of decision that is relevant. Their report states that:

> *"Incentives for investment relate to expectations held at time zero – the point at which decisions are made to assess the viability of various projects."*

Considering specifically the issues associated with demand forecasts, Davis and Handley then stressed the risks and distortions that would arise were:

> *"regulatory determinations … made at a time at which further information about market conditions has become available, such that forecast demand on which those determinations are based is different to the expected demand underlying the original (date 0 and 1) investment decisions. … specifically, for investment decisions at date 0 and 1 to be unaffected by subsequent regulatory determinations, the target revenue will need to be based on expected demand forecast at date 0 (or 1)."*

More generally, they emphasise that:

> *"Risk is an ex ante concept which exists when there is uncertainty about future events which may affect the project. It is therefore logically inconsistent to assess the risk at some prior point in time using information known at a later point in time."*

Given the desirability, from society's perspective, of avoiding the distortion of investment incentives that falling into this inconsistency would create, the authors say that:

> *"It would thus seem appropriate to develop a process whereby the position regarding access arrangements is determined at an earlier stage in the project evaluation/development process, such as at the time of financial close for the project."*

Accordingly, both economic theory and financial analysis provides unambiguous guidance that costs must be evaluated at the moment of decision. In the case of infrastructure projects, this is at the time of which financial closure obtains.

Providing the initial rate of return has been set to reflect risks over the life of the project, the rate of return should only be redetermined when costs and revenues have diverged in a manner that could not be anticipated at the time of project initiation and where outcomes are necessarily uncertain. For example, re-determination is warranted where costs and revenues diverge in a manner that cannot be insured against by the firm or fully diversified against by investors.

Not all project costs and outcomes are locked in at the time of the decision to proceed with the project. For example, a project's financing may provide for some degree of hedging of nominal interest rate risk, so that the interest cost can be redetermined to some extent as nominal interest rates change. Therefore, if there is a significant change in the interest rate, and there is no mechanism in the regulatory contract to pass on these costs there may be a case to revisit these costs during the regulatory review. The desirability of such a review would need to be considered on a case by case basis.

There are other costs or shocks that a firm is unable to fully hedge against, nor can investors in the firm fully diversify against. For example, changes to the taxation system of a similar nature to the introduction of the Goods and Services Tax are unlikely to be foreseeable by the firm. Alternatively, there may be a major cost and/or demand shock, such as a major explosion or terrorism that significantly affect the firm's rate of return. Even in the case of terrorism, it may not be appropriate for the regulatory arrangements to fully insure the owner of the asset if the existence of full insurance adversely affects the incentive for the firm to engage in preventative behaviour, otherwise known as moral hazard.

There also may be certain demand shocks where it will be in the interest of the regulator to share the risks. For example, where sources of demand are concentrated, the firm may be vulnerable

to a major disruption to one customer for reasons beyond its control. It may be appropriate to partially protect the firm from such disruption if, for example, the government would become obligated to guarantee continuing supplies to other customers. However, the threshold for a review in the case of such an event would need to be high so as not to introduce problems with incentives. These may arise if the firm is in a position to influence demand and has a better information base than the regulator.

These impacts should be distinguished from good and bad states of the world or factors such as luck. While these may result in the firm's rate of return diverging from that anticipated, these factors can be considered as part of the normal course of business events, and events that investors can diversify against to some degree.

In conclusion, providing the initial rate of return is set to reflect risks over the life of the project, the rate of return should only be redetermined when costs and revenues have diverged in a manner that could not be anticipated at the time of project initiation and where outcomes are necessarily uncertain. Factors that could trigger such a review include certain changes to the taxation system, major unanticipated cost changes such as an act of terrorism, a major unanticipated disruption to demand that is clearly outside the influence of the firm and potentially significant changes in the risk free rate.

No unanticipated cost or revenue 'shocks' of the kind referred to above have occurred during the relevant period such as to warrant any adjustment in the originally established rate of return.

In particular, (as discussed in section 2.6(c) of this submission) the mere fact that the joint venturers from time to time offered discounted tariffs in accordance with tariff setting principle 13 provides no justification for reducing the overall rate of return expectations of the joint venturers for the project based on the approved proposals under the State Agreement.

3.5 On an alternative view, the ROR should not be less than 13.5 percent

GGT believes there are sound legal and economic arguments for now taking, as the rate of return for determination of the GGP reference tariff, the pre-tax nominal rate of return embodied in the approved proposals under the State Agreement.

However, GGT notes that the Authority had some concern about the rate at which the original joint venturers were prepared to invest in the pipeline being in excess of a commercial rate of return.[11] This concern arose from a study commissioned by the Department of Resources Development (now the Department of Industry and Resources). Nevertheless, the Authority acknowledged that tariffs derived using GGT's proposed rate of return had been established and maintained under the State Agreement.

The Authority was, however, of the view that:

> "*The Rate of Return used in historical determinations of third party tariffs under the State Agreement (as submitted by GGT) could only be relevant for the purposes of the Code if those historical determinations provide useful evidence in calculating the forward-looking cost of capital for the Access Arrangement Period. Rates of Return implied by third party tariffs determined under the State Agreement are relevant in assessing the Rate of Return for determination of the Reference Tariff to the limited extent that they provide some evidence of the cost of capital associated with the project over the Access Arrangement Period.*"[12]

GGT maintains that the rate of return determined under the State Agreement is now directly relevant to assessing the rate of return to be used for determination of the GGP reference tariff. The rate of return determined under the State Agreement provides evidence of the assessment of risks that was made prior to the initial joint venturers' commitment to invest in the pipeline, and for which they sought compensation. Compensation for those risks was to be provided, over the life of the pipeline, via the rate of return used in the determination of the tariffs that would be charged for gas transportation service. Without this compensation for the risks to which they were exposed, the initial joint venturers would not have invested in the GGP.

In the subsequent sale of their interests in the pipeline, the initial joint venturers can be expected to have realised the value of the future compensation for the risks to which they were exposed through their decision to invest. The sale of their interests was a normal commercial transaction.

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[11] ADD, paragraph 158.
[12] ADD, paragraph 259

If they had not realised the future value of the compensation for risk, the initial joint venturers would not have sold their interests in the GGP.

In consequence, the economic implications of the risk assessment that was made at the time of the commitment to invest in the GGP has flowed through to the pipeline's current owners. If the current owners are now not compensated for that risk, through the application of the reference tariff principles of the Code, they will have been arbitrarily deprived of the opportunity to earn a stream of revenue that recovers the efficient costs of delivering the reference service over the expected life of the pipeline.

Furthermore, if there is no recognition given, or compensation provided, for the risks as they were assessed at the time of the commitment to invest in the GGP, the access arrangement will fail to properly take into account the current joint venturers' legitimate business interests and investment in the pipeline.

Recognition of the risks as they were assessed at the time of the commitment to invest in the GGP, through the rate of return used for determination of the reference tariff, is entirely consistent with the requirements of section 8.30 of the Code. Section 8.30 is explicit in its requiring that the rate of return be commensurate with the risk involved in delivering the reference service. The assessment of that risk was made prior to the commitment to invest in the GGP. It was made manifest through the setting of the parameters required for establishing the rate of return used in determination of the tariffs that were to apply under the access regime of the State Agreement.

The rate of return used in determination of the tariffs that were to apply under the access regime of the State Agreement was established using a method similar to the method now recognised by the Authority as being appropriate for establishing the rate of return required for reference tariff determination under the Code. In accordance with that method, the rate of return is determined as a weighted average of the costs of debt and equity. The cost of equity is, in turn, determined using the CAPM, and the cost of debt is estimated by adding a margin to the risk free rate of return.

The assessment of risk made manifest in the setting of the rate of return parameters for the tariff to apply under the State Agreement, must now be carried forward into reference tariff determination under the Code by applying the same parameter settings. To not do so will arbitrarily deprive GGT of the opportunity to earn a stream of revenue that recovers its efficient costs.

The values of the parameters which must now be used in setting the rate of return in accordance with sections 8.30 and 8.31 of the Code are:

- market risk premium – 7.6%;
- capital structure – 50.0% debt, 50% equity;
- value of imputation credits (γ) – 0.0%; and
- equity beta – 1.1035.

Even if it is assumed that:

(a) the proper interpretation of the Code prevents the continuation of the rate of return previously applying under the State Agreement; and

(b) the rate of return must be determined afresh in accordance with the current prevailing conditions in the market for funds;

this does not mean that all of the parameters of the previously approved model must be redetermined.

If this is the proper interpretation of section 8.30, then the rate of return required for reference tariff determination under the Code might appropriately be determined using current values for those elements of return which vary with market conditions, while retaining the parameter values reflecting the assessment of risk prior to the commitment to invest in the pipeline.
If the real and nominal risk free rates used in the ADD are taken to be current market values, the pre-tax nominal rate of return to be used in determining the reference tariff for the GGP should be 14.4 percent. The yields on the Commonwealth Government Treasury Bonds used to estimate the nominal and real risk free rates have, however, fallen since the issue of the ADD. If

these rates are estimated at the end of September 2004, the pre-tax nominal rate of return to be used in reference tariff determination should be 13.5 percent.

The pre-tax nominal rate of return to be used in determining a reference tariff for the GGP should therefore not be lower than 13.5 percent.

3.6 13.5 percent is within the range of values for a ROR for the GGP

GGT asked advisory firm KPMG to examine the upper limit of the range of values which might be established for a rate of return for the GGP assuming that:

(a) the Code is interpreted in such a way that of the previous rate of return applying under the GGP State Agreement (and the parameters from which it was derived) are to be disregarded;

(b) the rate of return is to be determined afresh in accordance with current prevailing conditions in the market for funds; and

(c) the models referred to by way of example in s8.31 of the Code are applied consistently with the conventional use of those models.

In asking KPMG to examine an upper limit for a rate of return for the GGP in a way in which the models referred to by way of example in s8.31 of the Code were applied consistently with the conventional use of those models, GGT sought to ensure that consideration was given to the Tribunal's decision in *GasNet*. In its decision in *GasNet*, the Tribunal:

(a) reiterated the finding of the Full Court of the Supreme Court of Western Australia in *Epic Energy* that there was no single correct figure for each of the parameter values which must be determined for the purpose of developing a reference tariff, and noted that issues of degree and judgement were involved which may lead to tensions which should be resolved by reference to the statutory objectives;

(b) identified the task of the regulator as being one of assessing whether the service provider's treatment of rate of return was consistent with the provisions of sections 8.30 and 8.31 of the Code, and assessing whether the service

provider's rate of return falls within the range of rates commensurate with prevailing market conditions and the relevant risk;

(c) indicated that choice of the method by which the rate of return was determined was a matter for the service provider;

(d) limited the regulator to ensuring that the service provider applied its chosen method in a way which was consistent with the conventional use of that method; and

(e) acknowledged that, where the service provider's method required use of the capital asset pricing model ("CAPM"), there was flexibility in the choice of inputs, but insisted that this did not preclude remaining true to the mathematical logic underlying the model.

Accordingly, KPMG:

(a) reviewed the conventional method of determination of a rate of return as a weighted average of the costs of equity and debt, using the CAPM for estimation of the cost of equity, and estimating the cost of debt by adding a margin to the risk free rate of return (which was the model recognised by the Authority as being appropriate for establishing the rate of return required for reference tariff determination under the Code);

(b) examined the range of values of each of the parameters required to establish a rate of return; and

(c) calculated a rate of return for the GGP applying, as appropriate, the upper or lower limit of the range of values for each of the parameters required for consistent application of the model (weighted average cost of capital, using the CAPM for estimation of the cost of equity, and estimating the cost of debt by adding a margin to the risk free rate of return).

KPMG found that, when values at the upper or, as appropriate, lower limits of the ranges of values for the parameters used in applying the CAPM, and in determining a weighted average of

costs of equity and debt are used, the rate of return (expressed in pre-tax nominal terms) is 13.7 percent.

GGT's alternative view of the rate of return for the GGP – 13.5 percent – is below the rate of return calculated by KPMG. A copy of the KPMG report is attached.

3.7 Conclusions on rate of return

There are sound legal and economic arguments for continuing to allow, as the rate of return to be used for determining the GGP reference tariff, the pre-tax nominal rate of return embodied in the approved proposals under the State Agreement (namely 18.81%). Sections 8.30 and 8.31 of the Code do not prevent the Authority from accepting that rate of return.

Alternatively, even if the Code is interpreted in such a way that the rate of return must be determined afresh in accordance with current prevailing conditions in the market for funds, this does not mean that all of the parameters of the previously approved model must be re-determined. The parameter values reflecting the assessment of risk prior to the commitment to invest in the pipeline should, as a minimum, be retained with only those elements of return which vary with market conditions being re-determined. Applying that methodology, the pre-tax nominal rate of return to be used in reference tariff determination would be 13.5%.

The above-mentioned rate of 13.5% is within the range of allowable returns for the GGP even if all elements of the rate of return were redetermined in accordance with the conventional application of the models referred to in section 8.31 of the Code (which would produce a rate of return expressed in pre-tax nominal terms of up to 13.7%).

Having regard to the above, GGT has proposed in its revised Access Arrangement to use a rate of return of 13.5%. This proposal has been put forward by GGT on the basis that the proper value is attributed to the initial capital base (namely $672.0 million). If the Authority proposes not to allow an initial capital base of this magnitude, a higher rate of return would be necessary in order to give proper recognition to the joint venturer's legitimate business interests.

4. NON CAPITAL COSTS

4.1 Introduction

The ADD proposes to not accept GGT's forecast non-capital costs for the years 2004 to 2009, on the basis that GGT has not provided sufficient information to enable the Authority to determine that those proposed costs are efficient. While GGT is proposing an Access Arrangement Period from 2005 to 2009, and the level of these prior non-capital costs is no longer directly relevant to consideration of the Access Arrangement, GGT will provide information in relation to 2004 non-capital costs when providing further information regarding the 2005 to 2009 non-capital costs.

4.2 Code requirements

Under section 2.24, the Regulator must take into account GGT's legitimate business interests and the operational and technical requirements necessary for the reliable operation of the GGP. GGT submits that its proposed non-capital costs are required to enable it to meet its statutory and contractual obligations in the provision of Services. A reduction in the recoverable amount of those costs will compromise GGT's ability to manage and operate the pipeline in the manner which it considers appropriate.

The GGP transports about 96% of its gas to Users who require gas for power generation for mining operations, which operate 24 hours a day for 365 days of the year. Therefore, these Users demand from GGT a high level of reliability.

If the non-capital costs are reduced below the proposed level, it will be necessary for GGT to vary its level of operations or maintenance activities. If the reliability of the GGP is compromised through such reductions, then there is potential for Users to be disadvantaged, contrary to section 2.24(f) of the Code. GGT is unaware of any evidence that the benefit to Users of a relatively small and short term tariff reduction arising from reduced non-capital costs will offset the disadvantages to those Users which arise through reduced operations and maintenance of the GGP.

Section 8.36 provides that "Non Capital Costs are the operating, maintenance and other costs incurred in the delivery of the Reference Service. Non Capital Costs may include, but are not limited to, costs incurred for generic market development activities aimed at increasing long-term demand for the delivery of the Reference Service." Section 8.37 provides that a "Reference Tariff may provide for the recovery of all Non Capital Costs (or forecast Non Capital Costs, as

relevant) except for any such costs that would not be incurred by a prudent Service Provider, acting efficiently, in accordance with accepted and good industry practice, and to achieve the lowest sustainable cost of delivering the Reference Service."

4.3 Non Capital Costs – Errors in ADD

GGT submits that the ADD is incorrect in concluding that one of the reasons for reducing GGT's non-capital costs is that:

> *"370. The Authority notes that the cost items for which GGT has indicated increases in forecast costs are items that would be expected to affect any gas transmission pipeline in Western Australia. Similar cost increases would therefore be expected for the DBNGP in Western Australia".*

Unlike the DBNGP, the GGP operates under two regulatory regimes, being the Code and the State Agreement, which necessarily leads to reasonable increases in additional expenditure. The comparison of the GGP with the DBNGP is simplistic and does not afford proper weight to the hybrid regime that operates for the GGP.

In paragraph 372, the ADD suggests that the GGP is similar to the Amadeus Basin to Darwin Pipeline (ABDP) and the Moomba to Sydney Pipeline (MSP) as follows:

> *"372. The comparison indicates that the forecast Non Capital Costs for the GGP are relatively high in comparison with the other two pipelines that have similar characteristics in length and numbers of compressor stations. While the comparison provides insufficient data for reliable benchmarking of Non Capital Costs, the comparison causes the* Authority *to question whether the actual and forecast operating costs of GGT meet the requirements of section 8.37 of the Code".*

Neither of these pipelines are sufficiently similar to the GGP to be used as a reliable indicator of the efficiency of GGT's non-capital costs. The GGP is in a remote area and is required to provide a level of reliability appropriate to Users who generate electricity for mining operations - the MSP does not do so. While the ABDP provides transportation for the primary purpose of power generation, it operates with only one compressor station. Neither of these pipelines incur

the level of FIFO/additional operating costs which arise from the remoteness of the GGP. Additionally, neither of them is subject to a hybrid statutory/regulatory regime such as that which applies to the GGP, and neither must pay directly for the costs of regulation. Accordingly, conclusions which are based on the comparability of these pipelines is erroneous.

4.4 Owners' Costs from 1999 and post 2004 to be included

GGT has submitted costs relating to pipeline operating and maintenance (representing direct operation and maintenance associated with the facilities and engineering of the pipeline) and management (representing commercial support and contractual support to the direct operations). However, GGT has not previously included any amount for the costs of the owner participants. The costs incurred by those companies in managing their interests in the Joint Venture and addressing issues that arise under contracts for services in the GGP, are part of the costs of the provision of services through the covered pipeline. Accordingly, an amount for the costs of the joint venturers in owning and managing their interests should be included in the non-capital costs for the pipeline.

As well as the costs of directly attending to joint venture business, these corporate costs include such items as corporate insurance, directors' fees, compliance, general corporate governance including ASX listing requirements, personnel and training, general legal, accounting, managing taxation affairs, office administration and government levies.

These general ownership costs are discussed in more detail below for the period 2005 to 2009.

4.5 GGT Corporate Costs for period 2005 - 2009

Generally, these amounts are regarded as corporate overheads. Whilst determining an appropriate allocation of such costs between the various assets owned by the joint venture owners may be subjective, GGT has performed an allocation which is consistent with a methodology accepted by the ACCC in its review of the MSP Access Arrangement. This methodology allocates on the basis of specific time spent on the ownership of the pipeline as well as an allocation of non-specific costs.

The proposed corporate costs that have been included in GGT's Non Capital Costs are as follows:

GGT Corporate Overheads ($Nominal $m)

	2005	2006	2007	2008	2009
Corporate Overheads	1.99	2.04	2.09	2.14	2.19
% of Non Capital Costs	9.2%	8.9%	8.8%	9.1%	9.1%

It is difficult to compare different pipelines' corporate overhead costs as their respective ownership structures and thus corporate overhead costs may differ significantly. In addition, a company that may own numerous assets, whether regulated or unregulated, may have per asset a corporate overhead cost below that of an entity which owns a single asset. As a result, the following comparisons are for illustrative purposes, although they are indicative of the level of corporate costs accepted by several regulators under the Code.

In support of the inclusion of corporate costs into the Non Capital Costs, GGT notes that the ACCC reviewed the approach and methodology and accepted the inclusion of equivalent Non Capital Costs for the Moomba to Sydney Pipeline (MSP).

The amount allowed by the ACCC for inclusion into the MSP Non Capital Costs is as follows:

MSP Corporate Overheads ($July 2001 $m)

	2004	2005	2006	2007	2008
Corporate Overheads	2.12	2.17	2.21	2.26	2.30
% of Non Capital Costs	9.2%	9.4%	9.6%	9.8%	10.0%

In addition, the Independent Pricing and Regulatory Tribunal of NSW (IPART) also allowed the recovery of corporate overheads in its July 2000 Decision on AGL Gas Networks NSW gas distribution system. The corporate overheads allowed in that decision are as follows:

AGL Gas Networks Corporate Overheads ($1999/2000 $m)

	2000	2001	2002	2003	2004
Corporate Overheads	14.9	14.5	13.9	13.9	13.8
% of Non Capital Costs	15.3%	15.8%	16.2%	16.7%	17.2%

4.6 Allowance for Asymmetric Risk

The CAPM approach used to determine a rate of return assumes that non-systematic risk can be eliminated by portfolio diversification. However, to the extent that there are risks which cannot be eliminated in this way, investors will require a return for bearing those risks.

In a report prepared in connection with the Access Arrangement for the Moomba-Sydney Pipeline, Network Economics Consulting Group (NECG) identified a number of asymmetric risks which regulated infrastructure firms face. They concluded that to the extent that CAPM does not recognise those risks, there must be an adjustment made to the cashflows to recognise these risks.

GGT has commissioned a report from NECG on the amount which should be included in the cashflows for the GGP to compensate for these risks, and that report will be provided as soon as it is received. Pending receipt of the report, GGT has included an amount of approximately $2 million in its non-capital costs for each year of the proposed Access Arrangement Period.

5. OTHER MATTERS INCLUDED IN REVISED ACCESS ARRANGEMENT

5.1 Depreciation Schedule for GGP – Code, section 8.32 – 8.33

The proposed ICB of $672.0 million is depreciated on a straight line basis from 1 January 2000, over the period of 64.5 years. This represents the remainder of a 70 year life commencing in July 1994 with the issue of the pipeline licence. As recognised in the ADD, there can be no certainty as to the likely economic life of the GGP and GGT submits that it is primarily a matter for the judgement of the service provider to determine the period over which the ICB should be depreciated.

As recognised in the ADD[13], adoption of the shorter 42 year life results in relatively early recovery of the capital value of the pipeline, meaning that current users would pay higher tariffs due to the effective acceleration of depreciation arising from the shorter life, and future users will pay tariffs based on a significantly reduced capital value. GGT submits that, in the context of the Code[14], having regard to GGT's legitimate business interests, and the interests of Users and Prospective Users, the use of the 70 year life is appropriate. In doing so, GGT recognises

[13] ADD, paragraph 74.
[14] The position may be different under the State Agreement.

that the Code will permit revision of the economic life if it subsequently appears that a 70 year life is not economic. GGT also notes that an economic life of 70 years is consistent with the proposal contained in the 2001 Draft Decision.

With an initial capital base of $672.0 million, straight line depreciation and a remaining economic life of 64.5 years, the depreciation schedule for the GGP is as follows:

GGP Depreciation Schedule ($ million, nominal)

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Depreciation	10.4	10.4	10.6	10.6	10.8	10.9	10.9	11.0	11.1	11.1

5.2 MDQ and throughput forecast

Maximum daily quantity ("MDQ") and throughput forecasts for the GGP have changed since GGT's 17 December 2002 submission and, in preparing a revised Access Arrangement, GGT has made use of the most recent forecasts. The primary forecasts are those for the MDQ's of the various users of the pipeline. They are set out in the following table.

Forecast maximum daily quantities (TJ/d)

	2005	**2006**	**2007**	**2008**	**2009**
GGP	105.6	108.4	110.1	109.9	107.9

Forecast throughput has been derived from the forecast of MDQ by applying a load factor. Review of recent usage of the pipeline indicated that the average load factor (which is expected to continue into the future) is approximately 85%.

5.3 Tariff structure

GGT has retained, for its revised Access Arrangement for the GGP, the tariff structure proposed in its 17 December 2002 and earlier submissions. That structure – a toll charge, reservation charge and throughput charge – was accepted by the Authority in the ADD.

However, in the revised Access Arrangement, GGT has proposed a single reference tariff to apply to access contracts of all durations. GGT is no longer proposing discounted tariffs for contracts of longer duration. This use of a single reference tariff across contracts of all durations

(eliminating any discrimination between users arising solely from differences in length of contract) has become common in access arrangements for transmission pipelines.