

IN THE WESTERN AUSTRALIAN ELECTRICITY REVIEW BOARD

Application No. 1 of 2010

Re Application for review of the decision by the Western Australian Economic Regulation Authority published on 5 August 2010 to approve its own revised Access Arrangement for the Goldfields Gas Pipeline

Applicant BHP Billiton Nickel West Pty Ltd (ABN 76 004 184 598)

First Respondent Southern Cross Pipelines Australia Pty Ltd (ABN 64 084 521 997)
Southern Cross Pipelines (NPL) Australia Pty Ltd (ABN 99 085 991 948)
Alinta DEWAP Pty Ltd (ABN 78 058 070 689)
Goldfields Gas Transmission Pty Ltd (ABN 87 004 273 241)

Second Respondent Economic Regulation Authority of Western Australia

Application No. 2 of 2010

Re Application under section 39(1) of Schedule 1 of the *Gas Pipelines Access (Western Australia) Act 1998* (which provision continues to apply by reason of section 28(4) of Schedule 3 of the *National Gas Access (WA) Act 2009*) for a review of the decision of the Economic Regulation Authority to draft and approve revisions of the access arrangement to apply to the Goldfields Gas Pipeline in place of the access arrangement revisions submitted for approval by Goldfields Gas Transmission Pty Ltd on behalf of the Goldfields Gas Transmission Joint Venture

Applicant Southern Cross Pipelines Australia Pty Ltd (ABN 64 084 521 997)
Southern Cross Pipelines (NPL) Australia Pty Ltd (ABN 99 085 991 948)
Alinta DEWAP Pty Ltd (ABN 78 058 070 689)
Goldfields Gas Transmission Pty Ltd (ABN 87 004 273 241)

First Respondent BHP Billiton Nickel West Pty Ltd (ABN 76 004 184 598)

Second Respondent Economic Regulation Authority of Western Australia

Members Messrs DS Ellis (Presiding), GA Mathieson and EA Woodley
Date 30 March 2012
Place Perth

SUPPLEMENTARY DECISION

Summary

- 1 The Board's decision of 22 November 2011 ("Original Decision") did not completely resolve two matters:
 - (a) the terms of the Extensions/Expansions Policy ("EEP"), forming clause 10 of the 2010 Access Arrangement¹; and
 - (b) the specific Reference Tariff applicable to the balance of the 2010 Access Arrangement Period².
- 2 The terms of the EEP which the Board considers appropriate are set out in Appendix 1 to this Decision.
- 3 The Board considers that the appropriate Reference Tariff elements to apply from 1 April 2012 are as follows:
 - (a) Toll Charge of \$0.237193/GJ;
 - (b) Reservation Charge of \$0.001462/GJ-km; and
 - (c) Throughput Charge of \$0.000401/GJ-km.
- 4 The reasons for the conclusions set out at [2] and [3] follow.

¹ See Original Decision at [111] to [114]. Terms which have been defined in the Original Decision have the same meaning in this Decision.

² See Original Decision at [254] to [256].

1. Extensions/Expansions Policy

1.1 Introduction

5 Paragraph [112] of the Original Decision states “In the Board’s opinion, a replacement clause 10.2 along the lines of the following clause would contain the elements and satisfy the principles identified in s 3.16 of the Code (“Draft Clause 10.2”):

10.2 GGT may, with the Authority’s consent, elect at some point in time whether or not a proposed extension to, or expansion of the Capacity of, the Covered Pipeline should be treated as part of the Covered Pipeline for all purposes under the Code or should not be treated as part of the Covered Pipeline for any purpose under the Code.

6 The parties made submissions that Draft Clause 10.2 should be amended in several respects. The parties also proposed amendments to clauses 10.1 and 10.3 (renumbered from 10.4) of the Access Arrangement.

7 A copy of clause 10, with the various amendments proposed to the Board by the parties is Appendix 2 to this Decision.

8 It is convenient to work sequentially through clause 10, as set out in Appendix 2, rather than to deal with changes proposed by each party.

1.2 Deletion of “Negotiated”

9 BHPB originally proposed deletion of the expression “Negotiated” in clause 10.1(c). At the Hearing³, BHPB did not pursue this amendment. The Board considers that there is no need for “Negotiated” to be deleted.

1.3 Addition of “Expansion”

10 BHPB proposed that the heading of clause 10.2 refer to expansion as well as extension. The parties agreed to this clarification and the Board concurs. However, for consistency with other references in clause 10, the Board considers it appropriate that the heading refer to Extensions/Expansions. Also, the Board

³ Board Hearing at Perth on 17 February 2012.

has made the same change to the heading and first line of clause 10.3.

1.4 “May/must”

- 11 The Authority proposed that “may” be changed to “must” in the first sentence of clause 10.2(a). BHPB agreed and GGT did not strongly oppose this change. The Board considers it is appropriate. Section 3.16 of the Code contemplates that a decision about coverage will be made. The use of “may” in clause 10.2(a) could suggest that GGT might have discretion to not make an election.

1.5 Public consultation

- 12 BHPB proposed that “following public consultation” be added after “consent” in clause 10.2 and after “elects” in clause 10.3(a). The Board considers that this change is not appropriate. There may be minor changes which are so uncontroversial that public consultation is not appropriate. It should be left to the Authority to decide what information it requires and what process it follows in order to exercise its powers under clauses 10.2 and 10.3. This may involve public consultation. However, this should be left to the discretion of the Authority.

1.6 Deletion of “Covered” and lower case “capacity”

- 13 BHPB proposed that “Covered” be deleted from Draft Clause 10.2, where first appearing. During the course of the hearing, the Board suggested that, if “Covered” was deleted, then it would also be appropriate to change “Capacity” to “capacity”. BHPB agreed with this suggestion.

- 14 Two issues arise:

- (a) is there a problem with Draft Clause 10.2?
- (b) if so, what can be done about it?

Is there a problem with Draft Clause 10.2?

- 15 BHPB argued that Draft Clause 10.2 has the potential to permit GGT to manipulate the operation of the EEP so as to permit it to unilaterally determine Coverage of expansions or extensions, contrary to the intention of s 3.16 of the

Code. BHPB argued that this potential arose from the language of Draft Clause 10.2, which only requires GGT to seek the Authority’s consent for an extension or expansion where the extension or expansion is an extension to, or expansion of the Capacity of, the Covered Pipeline. It argued that this would give GGT the discretion to decide that an extension or expansion did not apply to the Covered Pipeline and hence need not be referred to the Authority for its consent on whether or not Coverage is applicable.

16 “Capacity”, “Covered Pipeline” and “Covered/Coverage” are each defined terms in s 10 of the Code:

Capacity means the measure of the potential of a Covered Pipeline as currently configured to deliver a particular Service between a Receipt Point and a Delivery Point at a point in time.

...

Covered Pipeline means, subject to sections 2.3 and 2.4, the whole or a particular part of a Pipeline or proposed Pipeline which is Covered and any extension to, or expansion of the Capacity of, that Covered Pipeline which is to be treated as part of the Covered Pipeline in accordance with the Extensions/Expansions Policy contained in the Access Arrangement for that Covered Pipeline and any expansion of that Covered Pipeline required to be installed under section 6.22.

...

Coverage/Covered means, in relation to a Pipeline or part of a Pipeline, that that Pipeline or part of a Pipeline is subject to the provisions of this Code pursuant to sections 1.1, 1.13, 1.20 or 1.21.

It will be observed that the definition “Covered Pipeline” includes within it capacity that is treated as Covered by the operation of an EEP and does not specifically refer to any uncovered capacity of the Pipeline.

17 BHPB argued that the use of “Capacity” and “Covered Pipeline” in Draft Clause 10.2 suggests that:

- (a) the EEP only applies to proposed extensions to, or proposed expansions of the Capacity of, the Covered Pipeline; and
- (b) the EEP does not apply to a proposed extension that is not an extension of the Covered Pipeline nor to a proposed expansion that is not an expansion

of the Capacity of the Covered Pipeline.

If this is the case, then the scope for the application of the EEP will be significantly curtailed. Furthermore, this interpretation has the effect that “Coverage” under the Code arises primarily as a necessary condition for the operation of the method contained in Draft Clause 10.2, rather than being solely the outcome of the application of that method.

- 18 BHPB argued that Draft Clause 10.2 would enable GGT to manipulate the application of clause 10.2 to its own ends. BHPB contended that, if GGT proposed to expand the capacity of the Pipeline by looping, GGT would be likely to proceed on the basis that the expansion is an expansion of the Covered Capacity of the Pipeline and seek the Authority’s consent to its election that the expansion be treated as part of the Covered Capacity for all purposes. GGT would be able to earn a commercial return on the costs of looping through the Reference Tariff. Conversely, if GGT proposed to expand the capacity of the Pipeline by installing additional compressors, it would be to treat this expansion as an expansion of the uncovered capacity of the Pipeline, so that the EEP does not apply, the question of the consent of the Authority does not arise and GGT could proceed as it saw fit. The marginal unit cost of additional compressor-related capacity would be significantly less than the Reference Tariff but GGT may be able to charge for this capacity at its commercial rates, thereby earning more than a commercial return on that investment. At the time of the Original Decision the rates charged by GGT for the transportation of gas forming part of the uncovered capacity exceeded the Reference Tariff.
- 19 In response, GGT appeared to accept BHPB’s interpretation of Draft Clause 10.2, i.e. that Draft Clause 10.2 would not apply unless a proposed extension or proposed expansion was with respect to the Covered Pipeline. However, GGT made two points:
- (a) there was no real possibility of manipulation because the question whether the EEP applied was a question of objective fact;

- (b) s 3.16(a) of the Code had the same limitation as Draft Clause 10.2 so that:
 - (i) the Board could not approve an EEP which operated beyond the scope of Draft Clause 10.2;
 - (ii) alternatively, the Board should, as a matter of prudence, adopt the language of s 3.16(a).

The possibility of manipulation

- 20 GGT argued that whether an extension or expansion fell within the expression “extension to, or expansion of the Capacity of, the Covered Pipeline” of a Covered Pipeline was a question of “objective fact”.⁴ It contended that, as a consequence, GGT was not in a position to manipulate the answer to this question.
- 21 GGT gave the following example: “if the pipeline runs between points A and C, and B lies between them, and the extra compressor station is added at point B, it would be fairly clear, as a matter of fact, that what is happening is that the extra compressor station, and the capacity between points A and C, are Covered. As a matter of fact, the extra compressor station, by reason of its location, by reason of the fact that, as a matter of physical process, it is compressing gas in the pipeline to a greater degree to allow further gas to come down it, is to be regarded as something that expands the capacity of the Covered Pipeline.” GGT also raised the situation where a pre-existing extension of the Pipeline was not Covered and that extension was further extended. GGT said that it would not make sense to consider whether that further extension should or should not form part of the Covered Pipeline.⁵
- 22 There are significant difficulties with a consistent application of GGT’s suggested approach, particularly in the absence of readily ascertainable objective factual criteria for determining whether an extension or expansion falls within the

⁴ See Transcript of Hearing on 17 February 2012 (“T17.2.12”) at p18.

⁵ GGT Written Submissions dated 19 December 2011 at [3.5].

expression “a proposed extension to, or expansion of the Capacity of, the Covered Pipeline”. At the substantive Hearing GGT stressed that the Code regulates capacity. GGT stated⁶:

...the dividing line that is made between what is and what is not made subject to the provisions of the Code, which is what coverage means, is a dividing line drawn by reference to capacity. It's not drawn by reference to compressors or other bits of equipment. It's drawn by reference to capacity”.

There is substance to this approach. However, it is not consistent with the notion that whether or not an extension or expansion is Covered, so that the EEP applies, is a matter of “objective fact”.

23 Not all extensions or expansions will have pre-existing Covered or uncovered infrastructure or capacity with which the proposed extension or expansion can be readily associated. It is not clear, for example, what “objective facts” would determine whether installation of a new compressor at, say Wyloo West, is a proposed expansion of uncovered capacity, to which the EEP would not apply, or a proposed expansion of Covered Capacity, to which the EEP would apply. Compressors pump gas within the Covered Capacity as well as gas that is not subject to regulation under the Code. The gas is comingled in the pipeline and is not associated with or allocated to particular users of the Pipeline or to particular contracts until the gas is delivered. Applying GGT’s reasoning, the resulting expansion might be an expansion of both the Covered Capacity and uncovered capacity, so that the EEP applied in respect of the expansion of the Covered Capacity, but not in respect of the uncovered Capacity. And what if GGT wished to construct more pipeline at the end of the Pipeline? The Pipeline has both Covered Capacity and uncovered capacity. Would the additional pipeline also be both an extension of the Covered Pipeline and of the uncovered pipeline?

24 These scenarios are problematic. It might be that the intention of the Service Provider would be relevant to determining whether an extension or expansion fell within the expression “extension to, or expansion of the Capacity of, the Covered

⁶ See Transcript of Hearing on 19 April 2011 at P-79.

Pipeline”. However, if the intention of GGT is a relevant factor in determining how the proposed extension or expansion was characterized, the prospect is raised of GGT forming intentions which advantage it commercially rather than advance the policies and objectives of the Code.

25 Other difficulties arise as well. If indeed the question of characterization of an extension or expansion as an “extension to, or expansion of the Capacity of, the Covered Pipeline” is a matter of “objective fact”, GGT might be prevented from asserting that an extension or expansion was an extension to the Covered Pipeline or an expansion of Covered Capacity. It might, for example, be unable to assert that work on the second compressor at Paraburdoo could increase the Covered Capacity in any way or that the whole of an expansion by looping was attributable to the Covered Capacity. GGT or the Authority might act on the basis of an erroneous characterization of an extension or expansion, only to discover that the characterization was incorrect. There may be disputes between GGT and the Authority about whether a particular extension or expansion of the Pipeline is in fact an extension of the Covered Pipeline or an expansion of the Covered Capacity. Although such disputes may be capable of resolution through Court proceedings, the determination may take some time. In the meantime, GGT may have acted on its view of the objective facts and proceeded on the basis that the extension or expansion did not require the consent of the Authority because it was not an extension to the Covered Pipeline or of the Capacity of the Covered Pipeline. A clearer, faster process is desirable for all parties and is contemplated by the Code.

26 In conclusion then, the Board considers that there are problems with the operation of Draft Clause 10.2.

What, if anything, should be done?

27 GGT pointed out that Draft Clause 10.2 adopted language from s 3.16(a) of the Code. Section 3.16 provides:

Extensions/Expansions Policy

3.16 An Access Arrangement must include a policy (an *Extensions/Expansions Policy*) which sets out:

(a) the method to be applied to determine whether any extension to, or expansion of the Capacity of, the Covered Pipeline:

(i) should be treated as part of the Covered Pipeline for all purposes under the Code; or

(ii) should not be treated as part of the Covered Pipeline for any purpose under the Code;

(for example, the Extensions/Expansions Policy could provide that the Service Provider may, with the Relevant Regulator's consent, elect at some point in time whether or not an extension or expansion will be part of the Covered Pipeline or will not be part of the Covered Pipeline);

...

In particular, s 3.16(a) contemplates that the thing to which an EEP applies is "any extension to, or expansion of the Capacity of, the Covered Pipeline".

28 GGT argued that:

(a) Draft Clause 10.2 has the same limitation as s 3.16(a);

(b) the Board could not approve an EEP which operated beyond the scope of s 3.16(a); and

(c) alternatively, the Board should not, as a matter of prudence, adopt an EEP which operated beyond the scope of s 3.16(a).

29 The first of GGT's propositions requires consideration of the proper construction of s 3.16(a) of the Code. The Board does not accept that s 3.16(a) has the operation for which GGT contends, although the difficulties alluded to in the context of Draft Clause 10.2 also arise from a literal reading of s 3.16(a).

30 Section 7(1) of the Appendix to Schedule 1 of the Act provides:

In the interpretation of a provision of this Law, the interpretation that will best achieve the purpose or object of this Law is to be preferred to any other interpretation.

31 In the present case, the purpose or object of s 3.16(a) is that the issue of the extent to which the capacity of a Pipeline and its physical infrastructure will be Covered by the Code is to be the subject of provisions within the Access Arrangement. This purpose cannot be effected if s 3.16(a) is given the literal meaning identified above. If “Capacity” were used in its defined sense in s 3.16(a), then the operation of a method which complied with s 3.16(a) would be essentially circular: an expansion might possibly be treated as an expansion of the Capacity, if, and only if, the expansion was already, as a matter of fact, an expansion of the Capacity of the Covered Pipeline. A similar circularity arises in relation to whether an extension is an extension of a Covered Pipeline. The circularity is particularly significant where, as discussed at [22], the existence of objective criteria to determine the application of the EEP is not consistent with the general treatment of Coverage in the Code.

32 The intention of s 3.16(a) is to ensure there is a policy in the Access Arrangement that sets out a method that will enable the determination of whether any extension or expansion is to be treated as part of the Covered Pipeline. This broad scope is confirmed by the use of “any” before “extension” in s 3.16(a). The role of an EEP is not simply to formalize or ratify what has already been ascertained by some form of factual inquiry to be an extension of, or an increase in the Capacity of, a Covered Pipeline. It must be recalled, of course, that s 3.16(a) contemplates a method which will be applied at a time before the extension or expansion has been constructed, when the extension or expansion has the potential to subsequently extend, or expand the Capacity of, the Covered Pipeline. At the time the method is applied, the extension or expansion will not have been carried out and the extension to and additional Capacity (or capacity) of the Pipeline will not exist.

33 This view of s 3.16(a) is consistent with s 1.40 of the Code, which provides:

1.40 Extensions/Expansions of a Covered Pipeline

An extension to, or expansion of the Capacity of, a Covered Pipeline shall be treated as part of the Covered Pipeline for all purposes under the Code if the Extensions/Expansions Policy contained in the Access Arrangement for that

Covered Pipeline provides for that extension or expansion to be treated as part of the Covered Pipeline.

There are obvious similarities between the language of s 3.16(a) and s 1.40. Section 1.40 is looking at matters after the EEP has been applied and a determination has been made as to whether a potential extension or expansion will in fact be an extension, or an expansion of the Capacity of, the Covered Pipeline. It is not, in s 1.40, a precondition for the application of the EEP that the extension or expansion be in respect of the Covered Pipeline or Capacity of the Covered Pipeline for this clause to apply.

- 34 Section 3.16(a) also contemplates that questions of Coverage will be determined having regard to the policies and objectives of the Code. This is not consistent with the operation of a complying EEP being dependent upon the extension or expansion being already deemed to be Covered. Section 3.16(a) also contemplates that the Service Provider may have a considerable role in determining Coverage. This role is preserved in Draft Clause 10.2. This too is at odds with the operation of a complying EEP being dependent upon the extension or expansion being already Covered.
- 35 These matters lead the Board to conclude that, on a proper construction of s 3.16(a), the EEP required by the Code is to be applied to a *potential* extension of, or *potential* expansion of the Capacity, of a Covered Pipeline, rather than to an extension or expansion which is already, as a matter of fact, an extension of a Covered Pipeline or an expansion of (Covered) Capacity. It is the application of the EEP that will determine whether the particular extension or expansion will be treated as an extension of the Covered Pipeline or an expansion of its Capacity.
- 36 Because Draft Clause 10.2 is so closely based on the language of s 3.16(a), the Board considers that Draft Clause 10.2 should be understood to apply to any extension or expansion which has the potential to extend the Covered Pipeline or expand the Capacity of the Pipeline. Strictly speaking, this means that no amendment to Draft Clause 10.2 is necessary. However, Draft Clause 10.2 could

be better expressed to make its proper operation more apparent.

- 37 The Board considers that Draft Clause 10.2 would be better expressed by changing “Capacity” to “capacity” and deleting “Covered” where it first occurs. It should be unambiguous that the Authority must be consulted on all proposed extensions or expansions and must decide whether or not it consents to GGT’s proposed treatment with respect to each extension or expansion. It is that process which determines Coverage.

1.7 Addition of criteria

- 38 GGT proposed that an additional paragraph be added after Draft Clause 10.2 as follows:

- (b) In determining whether to consent pursuant to paragraph (a), the Authority must apply the matters set out in Section 2.24 of the Code and have regard to the objective of the Code. In doing so the Authority must consider whether the following parties: Users or Prospective Users of the Covered Pipeline, prospective users of the proposed extension or expansion, or GGT, are adversely affected by the election relative to their position if the proposed extension or expansion did not occur.

- 39 The Board does not consider the addition of this clause is appropriate, especially with respect to the second sentence. It would have the tendency to distort the exercise by the Authority of its discretion under Draft Clause 10.2 so as to give more weight to the matters specifically identified in that sentence than to the other matters referred to in s 2.24(a) to (g) of the Code and to suggest that the identified matters will always be relevant. Further, the matters specifically identified in the second sentence do not accurately reflect the factors identified in s 2.24(a) to (g) of the Code. These defects would not be remedied by the insertion of the expression “without limitation” between “must” and “consider”, as was discussed during the Hearing.

1.8 Requirement for a specific decision by the Authority

- 40 The Authority proposed that:

- (a) a subclause be inserted after clause 10.2, as follows:

- (b) To avoid doubt, in the event that the Authority refuses consent to GGT's election, the Authority must make an express determination whether or not the proposed extension to, or expansion of the Capacity of, the Covered Pipeline should be treated as part of the Covered Pipeline for all purposes under the Code or should not be treated as part of the Covered Pipeline for any purpose under the Code.

- (b) Draft Clause 10.2 become 10.2(a).

41 This change was not opposed by GGT or by BHPB, although BHPB suggested that "Covered" should also be deleted from this paragraph where first appearing. The Board considers that this proposed amendment adds clarity, although, for consistency "Capacity" should be changed to "capacity" and "Covered" deleted where first appearing.

1.9 Notification to the Authority

42 During the course of the Hearing, the issue arose as to whether GGT should notify the Authority of proposed extensions to or expansions of the capacity of the Pipeline. GGT did not concede that a provision to this effect was appropriate, but undertook to supply a form of words for consideration by the Board. The words provided by GGT are as follows. It was contemplated that they might be added as clause 10.2(c):

- (c) Where GGT is undertaking an extension to, or expansion of, the uncovered capacity of the Pipeline, GGT will:
 - (i) notify the Regulator that it is undertaking such an extension or expansion and set out the basis upon which GGT considers the extension or expansion is an extension or expansion of the uncovered capacity of the Pipeline; and
 - (ii) following a request for specified information from the Regulator, provide the Regulator with information that the Regulator reasonably requires to consider whether the extension or expansion is an extension or expansion of the uncovered capacity of the Pipeline.

43 BHPB objected to aspects of this clause.

44 However, in light of the conclusion that the Board has reached above about the proper construction of s 3.16(a) of the Code and the appropriate changes to Draft Clause 10.2, the Board considers that an additional clause such as 10.2(c) is

unnecessary, and would be redundant. The Board's changes to Draft Clause 10.2 will ensure that the Authority is notified of all proposed extensions and expansions and will decide on GGT's proposals concerning Coverage.

1.10 Deletion of clause 10.3

45 Draft Clause 10.2 deals with both extensions and expansions, so clause 10.3 should be deleted. Clause 10.4 should be renumbered as clause 10.3.

2 The Reference Tariff

2.1 Background

46 In the Original Decision, the Board concluded that the Authority had incorrectly calculated the Reference Tariff based upon financial modeling for the period 1 January 2010 to 31 December 2014, rather than for the period of 20 August 2010 to 31 December 2014. The Board directed the Authority⁷ "to rerun its financial model using the estimates available at the time of its Decision, but for the period of 20 August 2010 to 31 December 2014 so as to determine the Total Revenue for the 2010 Access Arrangement Period, and calculate a new Reference Tariff". The new Reference Tariff would come into operation on a date to be determined and compensate for any over or under recovery during the period between 20 August 2010 and the date the new Reference Tariff comes into effect.

47 The Authority has carried out such remodeling based on a commencement date for the new Reference Tariff of 1 April 2012. The parties have exchanged comments, held joint discussions and are in agreement, but for one aspect of the Authority's remodeling.

48 The issue in contention is whether the Weighted Average Cost of Capital (WACC), which has been determined as 10.48% per annum, should be calculated on a compounding or a pro-rata basis over the period 20 August to 31 December

At [255]

2010. There is no dispute between the parties on the resulting Reference Tariff figures when applying either a compounding or a pro-rata approach. The dispute is confined to which of the two approaches is more appropriate in determining the cost of capital during the period 20 August 2010 to 31 December 2010.

2.2 Discussion

49 The Authority's model for calculation of the 2010 Access Arrangement Reference Tariff used for the Further Final Decision covered the five full calendar years of an Access Arrangement Period commencing on 1 January 2010.

50 However, when rerunning its model in accordance with the Board's direction, the Authority was not able to apply its standard annual calculation because the first part of the Access Arrangement Period is not a full year. In rerunning its model, the Authority therefore calculated a WACC value for each period within the 2010 year, i.e. from 1 January 2010 to 19 August 2010 and from 20 August 2010 to 31 December 2010. It did so applying a daily compounding effect – i.e. an approach that assumes re-investment of returns on a daily basis. The Authority's remodeling allocates the annual pre-tax nominal WACC of 10.48 % across the two periods as follows:

(a) 1 January 2010 to 19 August 2010, 6.51%; and

(b) 20 August 2010 to 31 December 2010, 3.73%.

The combined effect of applying the respective WACC's for these two periods is a 10.48% annual Rate of Return on a compounding basis. Again, this calculation is not in dispute.

51 GGT contended that neither the Authority nor BHPB is entitled to raise matters of compounding in these proceedings, and the Board is also not entitled to consider them under s 39 of Schedule 1 of the *Gas Pipelines Access (Western Australia) Act, 1998*. The Board rejects this contention. This issue is simply one of determining how best to apply the Authority's model to determine the Reference Tariff for the 2010 Access Arrangement in the present circumstances.

52 More substantively, GGT contended that the 10.48% WACC for the two periods should be calculated on a pro-rata or simple proportional basis by reference to the number of days in the respective period compared to the full year, as follows:

(a) 1 January 2010 to 19 August 2012 (231 days), 6.63%; and

(b) 20 August 2010 to 31 December 2010 (134 days), 3.85%.

The effect of this pro-rata approach of allocating the WACC is to increase the amount allowed in the model for the cost of capital (comprising the return on plant value and the return on non-depreciable assets) within the period 20 August 2010 to 31 December 2010 by \$0.535 million compared to the result using the compounding approach, and consequently, to allow GGT to recover that sum from Users by way of an increased Reference Tariff over the 2010 Access Arrangement Period. Again, the \$0.535 million difference between the two approaches is not in dispute.

53 GGT argued that its pro-rata approach was preferable because it was consistent with other aspects of the model, which adopted a straight-line allocation of costs over the year. GGT argued that there was no basis shown for adopting a compounding approach rather than a pro-rata approach for the WACC.

54 It is true that the Authority's model allocates capital and non-capital cost inputs on a pro-rata basis (effectively assuming an even distribution of these costs throughout the year), in the absence of more detail on the distribution timing of these expenditures. Also, depreciation is modeled on a straight-line basis and therefore allocated linearly in proportion to the number of days within each period.

55 However, the WACC operates differently in the ordinary application of the Authority's model. It is an effective annual rate of return. That is to say, in a simple investment analogy, it expresses the difference between the sum of money that an investor might have at the beginning of the year and the amount the investor would have at the end of the year and it does so on the basis that the

annual return is received, once only, on the last day of the year. Irrespective of whether the periods within a particular year are days, months, quarters or two or more periods of unequal length, the compounding approach operates consistently to determine nominal rates applicable for each period, which when compounded together yield the equivalent effective annual rate of interest (return) upon which the nominal rates have been based. In the context of the Authority's modeling of the Cost of Service approach to the determination of the Total Revenue, the WACC operates as an effective annual rate of return on the Capital Base at the beginning of the period being evaluated. The return at the end of a year is 10.48% of the opening Capital Base at the beginning of that year. An effective rate is always greater than a corresponding nominal rate of interest that would produce the same annual return, when compounded over shorter periods than one year. Thus, returning to the simple investment analogy, \$100 invested at an effective rate of 10.48% per annum would produce \$104.80 at the end of the year, while \$100 invested at a nominal rate of 10.48% compounded daily, is equivalent to an effective annual rate of 11.05% and would produce \$110.50 at the end of the year. A nominal rate of 9.97% compounded daily however is required to produce an effective annual return of 10.48%.

56 Because the period from 20 August 2010 to 31 December 2010 is not a full year, it was necessary for the Authority to adopt a method of allocating the WACC between the two relevant periods of 2010. Allocating the WACC through the determination of a daily nominal rate and then compounding this over the 134 days in the period 20 August 2010 to 31 December 2010 is an approach which recognises time value of money principles and which is consistent with the nature of the WACC as an effective annual rate of return. This approach leads the Authority to determine a 3.73% return on the opening Capital Base at 20 August 2010, which is received on 31 December 2010, and which gives rise to an effective annual Rate of Return of 10.48% over this 134 day period.

57 The compounding approach is evident elsewhere in the 2010 Access

Arrangement, including the calculation of quarterly tariff variations. It is also consistent with the basis of the Authority's original model in that, for the period 20 August 2010 to 31 December 2010, revenue associated with the return on the opening Capital Base at 20 August 2010 is received on the last day of the year. The GGT pro-rata approach, however, proceeds on the basis that revenue associated with the return on the opening Capital Base at 1 January 2010, over the whole of the 2010 calendar year, is received on 31 December 2010 and then allocated pro-rata between the two periods. This is inconsistent with the requirement that matters occurring prior to 20 August 2010 are not part of the modeling for the Access Arrangement Period. The GGT approach also results in a return on capital for the period 20 August 2010 to 31 December 2010, and therefore for the 2010 Access Arrangement Period, which is in excess of the requisite 10.48% effective annual rate.

2.3 Decision

58 The Board considers that the Weighted Average Cost of Capital (WACC), which has been determined as 10.48% per annum, should be calculated on a compounding basis, rather than a pro-rata basis, for the period 20 August 2010 to 31 December 2010.

59 In consequence of this Decision, the appropriate Reference Tariff elements to apply from 1 April 2012 are the values corresponding to the compounding approach, as agreed between the parties, as follows⁸:

- (a) Toll Charge of \$0.237193/GJ
- (b) Reservation Charge of \$0.001462/GJ-km
- (c) Throughput Charge of \$0.000401/GJ-km

⁸ Values provided in GGT letter, of 16 March 2012.



DS Ellis
Presiding Member

Appendix 1

Clause 10 of the Access Arrangement as determined by the Board

10 Extensions/Expansions Policy

10.1 Extensions/Expansions

Other than as required under the Code or the GGP Agreement, GGT will not incur capital to expand the Capacity of the Covered Pipeline unless a User:

- (a) satisfies GGT of the existence of reserves and demand for the economic life of the expansion;
- (b) demonstrates to GGT that the User has the financial capability to pay the costs of the provision of Services provided through expanded Capacity; and
- (c) commits to a Negotiated Service Agreement sufficient to ensure the payment to GGT of all costs incurred by GGT in expanding the capacity and providing of Services through that expanded capacity.

10.2 Application of Arrangement to Pipeline Extensions/Expansions

- (a) GGT must, with the Authority's consent, elect at some point in time whether or not a proposed extension to, or expansion of the capacity of, the Pipeline should be treated as part of the Covered Pipeline for all purposes under the Code or should not be treated as part of the Covered Pipeline for any purpose under the Code.
- (b) To avoid doubt, in the event that the Authority refuses consent to GGT's election, the Authority must make an express determination whether or not the proposed extension to, or expansion of the Capacity of, the Pipeline should be treated as part of the Covered Pipeline for all purposes under the Code or should not be treated as part of the Covered Pipeline for any purpose under the Code.

10.3 Pipeline Extensions/Expansions and Tariffs

- (a) Pipeline extensions or expansions which GGT elects to cover under clause 10.2 will result in no change to the Reference Tariff applied to a User when those extensions or expansions have been fully funded by that User's capital contributions except to contribute to GGT's non-capital costs in connection with those extensions and expansions. Any change to Reference Tariffs may occur only pursuant to the process in Section 2 of the Code for revisions to Reference Tariffs.
- (b) Incremental Users as defined in the Code which have not made capital contributions towards Incremental Capacity as defined in the Code which they use and which has been funded by others will be liable to pay for surcharges as allowed for in Section 8 of the Code.

- (c) Pipeline extensions or expansions funded by GGT and which GGT elects to cover under clause 10.2 may result in the application of surcharges as allowed for in Section 8 of the Code subject to GGT providing written notice to the Regulator, and the Regulator approving the same, in accordance with Section 8.25 of the Code.

Appendix 2

Clause 10 showing changes proposed by the parties

In the version of clause 10 set out below:

- (d) the current clause 10 in the 2010 Access Arrangement, amended by the Board's Draft Clause 10.2, is in black text;
- (e) the amendments proposed by GGT are in blue text and double underlined;
- (f) the amendments proposed by the Authority are in green text;
- (g) the amendments proposed by BHPB are in red text.

10.1 Extensions/Expansions

Other than as required under the Code or the GGP Agreement, GGT will not incur capital to expand the Capacity of the Covered Pipeline unless a User:

- (a) satisfies GGT of the existence of reserves and demand for the economic life of the expansion;
- (b) demonstrates to GGT that the User has the financial capability to pay the costs of the provision of Services provided through expanded Capacity; and
- (c) commits to a ~~Negotiated~~ Service Agreement sufficient to ensure the payment to GGT of all costs incurred by GGT in expanding the capacity and providing of Services through that expanded capacity.

10.2 Application of Arrangement to Pipeline Extension/Expansion

- (a) GGT ~~may~~must, with the Authority's consent ~~following public consultation~~ elect at some point in time whether or not a proposed extension to, or expansion of the ~~Capacity~~capacity of, the ~~Covered~~ Pipeline should be treated as part of the Covered Pipeline for all purposes under the Code or should not be treated as part of the Covered Pipeline for any purpose under the Code.
- (b1) In determining whether to consent pursuant to paragraph (a), the Authority must apply the matters set out in Section.2.24 of the Code and have regard to the objective of the Code. In doing so the Authority must consider whether the following parties: Users or Prospective Users of the Covered Pipeline, prospective users of the proposed extension or expansion, or GGT, are adversely affected by the election relative to their position if the proposed extension or expansion did not occur.

- (b2) To avoid doubt, in the event that the Authority refuses consent to GGT's election, the Authority must make an express determination whether or not the proposed extension to, or expansion of the Capacity of, the ~~Covered~~ Pipeline should be treated as part of the Covered Pipeline for all purposes under the Code or should not be treated as part of the Covered Pipeline for any purpose under the Code.
- (c) Where GGT is undertaking an extension to, or expansion of, the uncovered capacity of the Pipeline, GGT will:
- (i) notify the Regulator that it is undertaking such an extension or expansion and set out the basis upon which GGT considers the extension or expansion is an extension or expansion of the uncovered capacity of the Pipeline; and
 - (iii) following a request for specified information from the Regulator, provide the Regulator with information that the Regulator reasonably requires to consider whether the extension or expansion is an extension or expansion of the uncovered capacity of the Pipeline.

10.3 Application of Arrangement to Pipeline Extension

If GGT expands the Capacity of the Pipeline the expanded Capacity will be treated as part of the Covered Pipeline for all purposes under the Code.

10.3 Pipeline Extension/Expansion and Tariffs

- (a) Pipeline extension or expansions which GGT elects **with the Authority's consent** to cover under clauses 10.2 ~~or 10.3~~ will result in no change to the Reference Tariff applied to a User when those extensions or expansions have been fully funded by that User's capital contributions except to contribute to GGT's non-capital costs in connection with those extensions and expansions. Any change to Reference Tariffs may occur only pursuant to the process in Section 2 of the Code for revisions to Reference Tariffs.
- (b) Incremental Users as defined in the Code which have not made capital contributions towards Incremental Capacity as defined in the Code which they use and which has been funded by others will be liable to pay for surcharges as allowed for in Section 8 of the Code.
- (c) Pipeline extensions or expansions funded by GGT and which GGT elects **with the Authority's consent** to cover under clauses 10.2 ~~or 10.3~~ may result in the application of surcharges as allowed for in Section 8 of the Code subject to GGT providing written notice to the Regulator, and the Regulator approving the same, in accordance with Section 8.25 of the Code.