



(ABN 19 078 551 685)

ACCESS ARRANGEMENT

for the

South Australian Gas Distribution System

8 April 2003

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DISCLAIMER

This document has been prepared solely for the purpose of compliance with the *Gas Pipelines Access (South Australia) Act 1997* and the National Third Party Access Code for Natural Gas Pipeline Systems.

This document is not intended for any other purpose and should not be relied upon as the basis for any decision to buy or sell, or otherwise deal in, Envestra's securities or for any other purpose.

1. INTRODUCTION

1.1 Purpose of this Document

This Access Arrangement is submitted by Envestra Limited ('Envestra') to the South Australian Independent Pricing and Access Regulator ('the Regulator') in accordance with the *Gas Pipelines Access (South Australia) Act 1997* and section 2 of the National Third Party Access Code for Natural Gas Pipeline Systems ('the Code'). Envestra first submitted a proposed Access Arrangement to the Regulator on 22 February 1999, and subsequently submitted revised Access Arrangement Information on 21 July 1999. The Regulator issued a Draft Decision on 12 April 2000 and a Final Decision (available at www.saipar.sa.gov.au) on the proposed Access Arrangement on 21 December 2001. This Access Arrangement incorporates amendments required by the Final Decision.

The Access Arrangement applies to Envestra's Covered South Australian natural gas distribution network ('the Network') that is located in the Adelaide (including the Barossa Valley), Peterborough, Port Pirie, Riverland, South East and Whyalla Regions. Maps of the Network have been provided to the Regulator. An overview of the Network in metropolitan Adelaide (which constitutes almost 95% of the Network) and a map showing the Regions served by the Network are included as Annexure A and B of this Access Arrangement respectively. Further information about the Network is included in the Access Arrangement Information.

Details of the policies and terms and conditions which will apply in relation to third party access to Network Services are set out in this Access Arrangement. Access Arrangement Information relating to this Access Arrangement has been submitted to the Regulator in accordance with section 2 of the Code.

1.2 Commencement Date

This Access Arrangement will come into effect on the date on which its approval takes effect under section 2 of the Code.

1.3 Interpretation

Section 10 of this Access Arrangement is a glossary, which sets out the definitions given to some terms used in this Access Arrangement.

Unless otherwise defined in this Access Arrangement, terms used have the same meaning as they have in the Code. Terms which are defined in the Code or in this Access Arrangement commence with capital letters. Unless specified otherwise, references to section numbers are references to sections in this Access Arrangement.

1.4 Contact Details

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2. SERVICES POLICY

2.1 Services

Envestra offers the following Network Services to Network Users and Prospective Network Users:

- three Haulage Reference Services;
- three Ancillary Reference Services; and
- Negotiated Services.

To the extent practicable and reasonable, a Network User or Prospective Network User may obtain a Network Service which includes only those elements that the Network User or Prospective Network User wishes to be included in the Network Service.

To the extent practicable and reasonable, Envestra will provide a separate Tariff for an element of a Network Service if requested to do so by a Network User or Prospective Network User.

2.2 Haulage Reference Services

2.2.1 *Domestic Haulage Service*

The Domestic Haulage Service is a Haulage Reference Service that comprises the firm forward haulage of Gas to a Domestic Delivery Point in accordance with, and subject to, the terms and conditions referred to in section 4.

A Delivery Point is a Domestic Delivery Point for a given period if the Gas delivered through that Delivery Point during that period was used primarily for domestic purposes. Gas will have been used primarily for domestic purposes if 50% or more of that Gas was used for domestic purposes.

Envestra will determine from time to time whether Gas delivered through a Delivery Point during any period was used primarily for domestic purposes or primarily for other purposes. Envestra's determination will bind the Network User, unless proven incorrect.

2.2.2 *Demand Haulage Service*

The Demand Haulage Service is a Haulage Reference Service that comprises the firm forward haulage of Gas to a Demand Delivery Point for a minimum period of one Year, in accordance with, and subject to, the terms and conditions referred to in section 4.

A Delivery Point is a Demand Delivery Point at a given time if:

- that Delivery Point is not a Domestic Delivery Point at that time; and
- any of the following apply:
 - the Quantity of Gas delivered through that Delivery Point during the then most recent Metering Year was equal to or greater than 10TJ; or
 - the Quantity of Gas delivered, or deemed to have been delivered, through that Delivery Point on any Network Day during the then most recent Cycle was equal to or greater than 50GJ.

Where the measurements taken from the Metering Equipment at a Delivery Point do not separately show the Quantity of Gas delivered on particular Network Days, the maximum

Quantity of Gas delivered on a Network Day during a Cycle will be deemed to be the average daily Quantity of Gas delivered through that Delivery Point during that Cycle, multiplied by a factor of 1.3. It is noted that this Access Arrangement provides for all Demand Delivery Points consuming greater than 10 TJ per annum to have telemetry (interval metering) installed.

In this section, a reference to the Quantity of Gas delivered is a reference to Gas delivered whether to or for the account of the Network User or another person or persons.

2.2.3 Commercial Haulage Service

The Commercial Haulage Service is a Haulage Reference Service that comprises the firm forward haulage of Gas to a Commercial Delivery Point in accordance with, and subject to, the terms and conditions referred to in section 4.

A Delivery Point is a Commercial Delivery Point at a given time if that Delivery Point is not a Demand Delivery Point or a Domestic Delivery Point at that time.

2.2.4 Nature of Haulage Reference Services

Each Haulage Reference Service will consist of accepting Gas into the Network at a Receipt Point and delivering an equivalent quantity of Gas to a Delivery Point on the Network.

2.2.5 Associated Services

Each Haulage Reference Service also includes:

- odourisation of Gas;
- provision and maintenance of Metering Equipment; and
- meter reading on a quarterly basis for Domestic Delivery Points and Commercial Delivery Points, and on a monthly basis for Demand Delivery Points.

The Haulage Reference Services do not include any of the Services described as Ancillary Reference Services (see section 2.3) or Negotiated Services (see section 2.4). For the avoidance of doubt, Unaccounted for Gas is supplied by Envestra and the cost is incorporated in the Network operating costs.

2.2.6 Reference Tariffs

The Reference Tariffs that apply for Haulage Reference Services in the year 1 July 2002 to 30 June 2003 are set out in the Tariff Schedule which forms Annexure C to this Access Arrangement.

2.3 Ancillary Reference Services

In addition to the Haulage Reference Services set out in section 2.2 above, Envestra offers the following Ancillary Reference Services:

- Special Meter Reading Service – this Reference Service comprises meter reading for a Delivery Point, that is in addition to scheduled meter readings that form part of the Haulage Reference Services;
- Inlet Disconnection Service – this Reference Service comprises the isolation of a Domestic Customer's gas service from the gas main that delivers Gas to the Delivery Point for that Customer; and

- Inlet Reconnection Service – this Reference Service comprises the reconnection to the Network of a Domestic Delivery Point that has been the subject of an Inlet Disconnection Service request. This Service includes relighting any appliances installed at the premises to which Gas is delivered through the Delivery Point.

Each Ancillary Reference Service will be provided in accordance with and subject to the terms and conditions referred to in section 4.

The Reference Tariffs that apply for Ancillary Reference Services in the year 1 July 2002 to 30 June 2003 are set out in the Tariff Schedule which forms Annexure C to this Access Arrangement.

2.4 Negotiated Services

Any Network User or Prospective Network User may request Envestra to provide a Negotiated Service. A Negotiated Service is a Network Service that is different from the Haulage Reference Services and the Ancillary Reference Services, eg an interconnection service or interruptible haulage service. (Interruptible haulage services will only be negotiated where Envestra determines they are of value to the Network, i.e. where they assist in managing capacity constraints in the Network).

The terms and conditions on which Envestra will provide Negotiated Services will be the same as the terms and conditions referred to in section 4, where Envestra determines that those terms and conditions are appropriate and applicable to the Negotiated Service requested by the Network User or Prospective Network User.

2.5 Network Service Standards

Envestra will provide each Network Service, including each Reference Service, in accordance with and subject to the requirements of any Distribution Licence or applicable law.

3. REFERENCE TARIFFS AND REFERENCE TARIFF POLICY

The Reference Tariffs for the Reference Services are set out in the Tariff Schedule which forms Annexure C to this Access Arrangement.

The Reference Tariffs set out in Annexure C are those that will apply from 1 July 2002 to 30 June 2003. Envestra will apply to the Regulator each year to adjust Reference Tariffs with effect from 1 July each year in accordance with the adjustment mechanisms in section 3.3.6.

3.1 Reference Tariffs for Haulage Reference Services

3.1.1 Demand Haulage Service

The Reference Tariff for the provision of the Demand Haulage Service varies according to the Region of the Network in which the Demand Delivery Point is located.

The Network comprises six Regions. They are the Adelaide Region, the Peterborough Region, the Port Pirie Region, the Riverland Region, the South East Region and the Whyalla Region. These are shown on the map included as Annexure B.

In the case of a Demand Delivery Point in the Adelaide Region, the Reference Tariff also varies according to the Zone in which the Delivery Point is located. There are four Zones within the Adelaide Region. These are shown on the map included as Annexure D.

Reference Tariffs for the provision of Demand Haulage Services are set out in Tables 1 and 2 of the Tariff Schedule.

3.1.2 Domestic Haulage Service

The Reference Tariff for the provision of Domestic Haulage Services is set out in Table 3 of the Tariff Schedule.

3.1.3 Commercial Haulage Service

The Reference Tariff for the provision of Commercial Haulage Services is set out in Table 4 of the Tariff Schedule.

3.2 Reference Tariffs for Ancillary Reference Services

The Reference Tariff applicable to the provision of each Ancillary Reference Service is set out in Table 5 of the Tariff Schedule.

3.3 Reference Tariff Policy

In this section 3.3, a reference to the percentage change in the CPI is a reference to the percentage change between the March quarter CPI in the then current year and the March quarter CPI in the previous year.

3.3.1 *New Facilities Investment*

The Reference Tariffs for Haulage Reference Services will vary in accordance with the Extensions and Expansions Policy set out in section 8.

Where only part of any New Facilities Investment that is included as part of the Network satisfies section 8.16 of the Code, then:

- the Capital Base will be increased by that part of the New Facilities Investment that satisfies section 8.16 (the ‘Recoverable Portion’); and
- Reference Tariffs for that part of the New Facilities Investment that satisfies section 8.16 of the Code will be determined in accordance with section 8.2 of this Access Arrangement.

Where part or all of any New Facilities Investment that is included as part of the Network does not satisfy any of the requirements of section 8.16 of the Code, Envestra may agree a Capital Contribution with a User in relation to that New Facilities Investment, or apply to the Regulator to impose a Surcharge, in accordance with section 8 of the Code.

3.3.2 *Imposts*

Whenever Envestra determines that the costs of operating the Network or performing its obligations under the Agreement have increased or decreased materially as a result of a New Impost or change in an Impost, Envestra may apply to the Regulator for approval to increase or decrease the Reference Tariffs accordingly, in accordance with the provisions of the Code.

Any amendment to a Reference Tariff as a result of a New Impost or change in an Impost will be effective from the date of the introduction of the New Impost or change in the Impost.

This element of the Reference Tariff Policy is a Fixed Principle for a Fixed Period of two Access Arrangement Periods.

3.3.3 *Asset Base and Rate of Return*

3.3.3.1 *Forecasting the Capital Base*

The Capital Base to be adopted for the purposes of forecasting Total Revenue for an Access Arrangement Period, will be the opening value of the Capital Base, as determined in accordance with clause 3.3.3.2 (with the exception that for the first Access Arrangement period, the opening value of the Capital Base will be the Initial Capital Base), adjusted by (on an annual basis):

- forecast New Facilities Investment that is proposed to be added to the Capital Base in accordance with the Extensions/Expansions Policy and section 8 of the Code;
- forecast depreciation calculated in accordance with section 3.3.5 of this Access Arrangement;
- forecast Redundant Capital determined in accordance with section 3.3.4 of this Access Arrangement; and
- a forecast percentage change in the CPI of 2.5%.

3.3.3.2 Capital Base at Review

The Capital Base, when reviewed, shall be adjusted to reflect the following factors, which will be calculated on an annual basis:

- New Facilities Investment that is to be added to the Capital Base in accordance with the Extensions/Expansions Policy and section 8 of the Code;
- depreciation calculated in accordance with section 3.3.5 of this Access Arrangement;
- Redundant Capital determined in accordance with section 3.3.4 of this Access Arrangement; and
- the actual percentage change in the CPI (or if not available, estimates of the CPI).

The Capital Base at the commencement of the next Access Arrangement Period will be adjusted to account for any difference between actual and forecast New Facilities Investment in accordance with section 8.22 of the Code.

3.3.3.3 Rate of Return

In accordance with the Final Decision a real pre-tax Rate of Return of 7.60% will apply for the first Access Arrangement Period.

3.3.4 Redundant Capital

When reviewed, the Capital Base shall be reduced in the following circumstances and in accordance with the following approach:

- where assets dedicated to providing Network Services to a specific Delivery Point cease to contribute in any way to the delivery of Network Services, the value attributable to those assets shall be removed;
- where any other assets in the Capital Base cease to contribute in any way to the delivery of Network Services, the value attributable to those assets shall be removed; and
- the value attributable to assets that are sold shall be removed.

If assets that have been declared Redundant Capital subsequently contribute, or make an enhanced contribution, to the delivery of Services, the assets will be treated as a New Facility, having New Facilities Investment equal to the Redundant Capital Value increased annually on a compounded basis by the Rate of Return (applicable to that period) from the time the Redundant Capital Value was removed from the Capital Base.

3.3.5 Depreciation

Depreciation of the assets which form the Capital Base for the Network will be calculated on a straight-line basis.

3.3.6 Reference Tariff Adjustments – Price Path and Transition Arrangements

3.3.6.1 Reference Tariffs for Haulage Reference Services to Demand Delivery Points

The Reference Tariffs for Haulage Reference Services to Demand Delivery Points (section 3.1.1) will be adjusted on 1 July each year, in a manner that is designed to change the average price per GJ by the percentage change in the CPI minus 0.5%.

3.3.6.2 Reference Tariffs for a Haulage Reference Service to a Commercial Delivery Point

The Reference Tariff for Haulage Reference Services to Commercial Delivery Points (section 3.1.2) will be adjusted on 1 July each year by the percentage change in the CPI minus 0.3%.

3.3.6.3 Reference Tariff for a Haulage Reference Service to a Domestic Delivery Point

The Reference Tariff for Haulage Reference Services to Domestic Delivery Points (section 3.1.3) will be adjusted on 1 July each year by the percentage change in the CPI minus 0.3%.

3.3.6.4 Reference Tariffs for Ancillary Reference Services

The Reference Tariffs for Ancillary Reference Services (section 3.2) will be adjusted on 1 July each year by the percentage change in the CPI.

3.3.6.5 Reference Tariffs From 1 July 2006

If revisions to this Access Arrangement have not come into effect by 1 July 2006, then:

- the Reference Tariffs for the Haulage Reference Services for the period between 1 July 2006 and the date the revisions come into effect will be adjusted on 1 July each year by Envestra, commencing on 1 July 2006, in a manner that is designed to change the average price per GJ for each Reference Tariff by the percentage change in the CPI; and
- the Reference Tariffs for the Ancillary Reference Services for the period between 1 July 2006 and the date the revisions come into effect will be adjusted on 1 July each year by Envestra, commencing on 1 July 2006, by the percentage change in the CPI.

3.3.6.6 Full Retail Competition Costs

Reference Tariffs may be adjusted in accordance with a Trigger Event Adjustment Approach as follows:

(1) Non-Capital Costs

Reference Tariffs may be adjusted, or a Charge may be imposed, within an Access Arrangement Period in accordance with the Code to recover Non-Capital Costs associated with the introduction of retail competition in the gas industry in South Australia (which includes costs necessary to implement market rules or satisfy relevant licence conditions) where the Regulator deems compliance with the following:

- (a) Envestra has not already recovered those costs
- (b) The costs are considered prudent, this being the amount that would not exceed the amount that would be incurred by a prudent Service Provider acting efficiently, in accordance with accepted good industry practice, and to achieve the lowest sustainable cost of delivering Services, taking into account timeframes set by the Government
- (c) Envestra provides the Regulator with the following information:
 - (i) the nature of the costs
 - (ii) the amount of the costs it seeks to recover, and when they were or are expected to be incurred

- (iii) the amendments it proposes to the Reference Tariffs in order to recover those costs and the basis on which those amendments were calculated, or the level of the proposed Charge and on whom it is proposed to be imposed; and
- (iv) the date on which it is proposed that the new Reference Tariffs or the proposed Charge will commence, and in the case of a Charge, the proposed duration.

The impact of such costs shall not be taken into consideration when determining Envestra's performance in relation to any efficiency or incentive measures.

Reference Tariffs cannot be adjusted, or a charge imposed, without the approval of the Regulator.

(2) New Facilities Investment

Reference Tariffs may be adjusted, or a Charge may be imposed, within an Access Arrangement Period in accordance with the Code to recover New Facilities Investment associated with the introduction of retail competition in the gas industry in South Australia (which includes costs necessary to implement market rules or satisfy relevant licence conditions) where the Regulator deems compliance with the following:

- (a) Envestra has not already recovered those costs
- (b) The costs are considered prudent, this being the amount that would not exceed the amount that would be incurred by a prudent Service Provider acting efficiently, in accordance with accepted good industry practice, and to achieve the lowest sustainable cost of delivering Services, taking into account timeframes set by the Government
- (c) Envestra provides the Regulator with the following information:
 - (i) the nature of the costs
 - (ii) the amount of the costs it seeks to recover, and when they were or are expected to be incurred
 - (iii) the amendments it proposes to the Reference Tariffs in order to recover those costs and the basis on which those amendments were calculated, or the level of the proposed Charge and on whom it is proposed to be imposed; and
 - (iv) the date on which it is proposed that the new Reference Tariffs or the proposed Charge will commence, and in the case of a Charge, the proposed duration.

The impact of such costs shall not be taken into consideration when determining Envestra's performance in relation to any efficiency or incentive measures.

Reference Tariffs cannot be adjusted, or a charge imposed, without the approval of the Regulator.

Where the Regulator approves the New Facilities Investment under this clause, the New Facilities Investment shall be considered to meet the requirements of 8.16 of the Code and the Capital Base will be increased by the New Facilities Investment from the commencement of the next Access Arrangement Period.

3.3.6.7 Approval of Annual Tariff Variations

Envestra will apply to the Regulator to adjust Reference Tariffs with effect from 1 July each year in accordance with the adjustment mechanisms in sections 3.3.6.1 to 3.3.6.4, and in accordance with any procedure set out in the Code.

3.3.7 Incentive Mechanism

- (1) The full value of any efficiency gains, including reductions in the costs of providing Reference Services and any revenue from the sale of Reference Services greater than forecast, may be retained by Envestra. This applies during this Access Arrangement Period and the following Access Arrangement Period (two Access Arrangement Periods).

The application of this Incentive Mechanism is subject to Envestra continuing to manage and operate the Network in accordance with accepted industry practice and any service standards prescribed by any relevant law or applicable regulatory instrument.

- (2) At the completion of the first Access Arrangement Period estimates relevant to the efficiency gains for the previous period will be re-examined. At the completion of the re-examination process, if it is discovered that:
 - (i) all or a component of the actual efficiency gains achieved were the result of significant decreases in input prices that were reasonably foreseeable at the time that the estimates relevant to the efficiency gains were made, or
 - (ii) the actual efficiency gains achieved were based on excessive under-estimations of sales that were reasonably foreseeable as such at the time that the estimates relevant to the efficiency gains were made, then

the proposed estimates relating to efficiency gains for the following Access Arrangement Period may be adjusted accordingly by the Regulator (however the efficiency gains for the first Access Arrangement Period will still be retained by Envestra within the first Access Arrangement Period).

3.3.8 Tariff Schedules

Whenever Envestra proposes to make an application to the Regulator or has been granted approval by the Regulator to adjust or modify Reference Tariffs in accordance with this Access Arrangement, it will publish details of this (including revised Tariff Schedules) on its website “www.envestra.com.au” Any revised Tariff Schedule approved by the Regulator will specify the period during which it is to be in effect and will be effective as the Tariff Schedule during that period, unless it is superseded by another revised Tariff Schedule published pursuant to this Access Arrangement.

3.4 Trigger Mechanism

The Access Arrangement will be reviewed in the event of an interconnection of the Network with a new pipeline, but only if that interconnection results in an injection of Gas into the Network at points such that the flow of Gas in the Network is significantly altered and as a consequence there is a material impact on aspects of tariff design.

4. TERMS AND CONDITIONS

4.1 Reference Services

Reference Services will be provided to Network Users under this Access Arrangement on and subject to the terms of an Agreement that will comprise:

- (a) the terms and conditions set out in Annexure E; and
- (b) the Specific Terms and Conditions agreed between Envestra and the Network User.

The Specific Terms and Conditions that form part of the Agreement between Envestra and the Network User will comprise:

- (a) details of each User Receipt Point at which Gas is to be delivered to Envestra by or for the account of that Network User pursuant to the Agreement;
- (b) details of each User Delivery Point at which Gas is to be delivered by Envestra to or for the account of that Network User pursuant to the Agreement;
- (c) the period for which the Agreement is to remain in force (assuming it is not terminated earlier in accordance with the terms and conditions set out in Annexure E) which period¹ must be at least 12 months;
- (d) the date on which Envestra is to commence providing Reference Services pursuant to the Agreement;
- (e) details of the maximum Quantity of Gas Envestra is obliged to deliver through each User Delivery Point to or for the account of the Network User during any Network Day and during any period of sixty minutes; and
- (f) an address and facsimile number for the purposes of the service of notices on the Network User pursuant to the Agreement.

It is possible that a Network User will wish to deliver Gas to Envestra through multiple/different Receipt Points that vary over the term of the Agreement or requires Envestra to deliver Gas through multiple/different Delivery Points that will vary over the term of the Agreement. In this case, the Specific Terms and Conditions will describe how those Receipt Points and Delivery Points will be determined and identified from time to time over the term of that Agreement. The Specific Terms and Conditions might, for example, describe the Delivery Points as the Delivery Points identified in a schedule to be revised by agreement from time to time between the Network User and Envestra.

4.2 Negotiated Services

A Negotiated Service is a Network Service that is different from the Reference Services.

If a Network User or a Prospective Network User requires a Network Service on terms and conditions that differ in any way to the terms and conditions set out in Annexure E or with Specific Terms and Conditions that do not correspond with the Specific Terms and Conditions described in section 4.1, then the Network User or Prospective Network User requires a Negotiated Service.

The terms and conditions on which Envestra will provide a Negotiated Service will be determined through negotiation between Envestra and the Network User who requires that

¹ This period relates to the Agreement and not to Delivery Points.

Negotiated Service, or in default of agreement, through dispute resolution in accordance with section 6 of the Code.

The terms and conditions on which Envestra will provide a Negotiated Service will be the same as the terms and conditions described in section 4.1 to the extent that Envestra and the Network User agree that those terms and conditions are appropriate and applicable to the Negotiated Service requested by the Network User or Prospective Network User.

4.3 Pre-Conditions to Network Services

A Prospective Network User that requires a Network Service must satisfy a number of pre-conditions before Envestra is required to provide that Network Service. These pre-conditions are as follows:

- (a) the Network User must satisfy Envestra that the Network User meets the requirements of Envestra's Credit Policy;
- (b) the Network User must satisfy Envestra that the Network User has adequate arrangements in place to ensure that the aggregate Quantity of Gas delivered to Envestra by or for the account of the Network User will be equal at all times to the aggregate Quantity of Gas delivered by Envestra to or for the account of the Network User;
- (c) the Network User must satisfy Envestra that the Network User has adequate arrangements in place to ensure that the Network User will comply with its obligations to Envestra in relation to the Network Service; and
- (d) The Network User must execute a written agreement setting out or incorporating the terms and conditions on which Envestra is to provide the Network User with the Network Service.

The arrangements mentioned in section 4.3(b) must include the agreement of the Network User to apportionment arrangements between the Network User and other Network Users together with Envestra and each Transmission Operator, to apportion Gas delivered through a Receipt Point or Delivery Point amongst the Network User and other Network Users. The apportionment arrangement in respect of Receipt Points will be that contained in the Network and Consumer Transfer Code and any agreement entered into between relevant parties for the purposes of apportionment (the "Apportionment Agreement").

4.4 Credit Policy

Envestra will not be required to provide Network Services to a Network User, or Prospective Network User, who does not meet the requirements of Envestra's Credit Policy. The Credit Policy requires that:

- (a) a Network User must be resident in Australia or have a permanent establishment in Australia;
- (b) (if the Network User is incorporated or constituted under any law other than the Corporations Act 2001) the Network User must have provided Envestra with a legal opinion in form and substance satisfactory to Envestra that confirms:
 - (i) the due incorporation and good standing of the Network User;
 - (ii) the legal capacity of the Network User to enter into and perform the Agreement between the Network User and Envestra;
 - (iii) the due execution of that Agreement and the enforceability of that Agreement against the Network User;

- (c) the Network User must be capable of being sued in its own name in courts established under the laws of South Australia and other States;
- (d) the Network User must not enjoy any immunity from legal proceedings or legal process (including, but without limitation, any immunity from execution);
- (e) the Network User must have an acceptable credit rating, or provide Envestra with security acceptable to Envestra, on terms and conditions acceptable to Envestra;
- (f) the Network User must have the necessary financial capability to discharge its present and future obligations in relation to Network Services; and
- (g) the Network User must not be an externally-administered body corporate or an insolvent under administration (as defined in the Corporations Act 2001) or under a similar form of administration under any laws applicable to the Network User in any jurisdiction.

For the purposes of paragraph (e), Envestra will from time to time determine what constitutes an acceptable credit rating. Until otherwise determined by Envestra, the following credit rating will be an acceptable credit rating:

a rating of BBB or higher for long-term unsecured counterparty obligations of the entity, as rated by Standard & Poors (Australia) Pty Ltd.

Whenever Envestra decides to alter the acceptable credit rating, it will notify all Network Users and Prospective Network Users of the acceptable credit rating or ratings as altered. This information will also be included in the Information Package that Envestra is required to maintain under the Code.

For the purposes of paragraph (e), acceptable security will be a bank guarantee, the amount of which shall not exceed Envestra's reasonable estimate of three months average Charges (calculated by reference to a twelve-month period).

4.5 Pre-existing Rights

In accordance with section 2.25 of the Code, no Network User or Prospective Network User will be entitled to a Network Service to the extent that the provisions of that Network Service will deprive a person of their contractual rights under a pre-existing agreement (to the extent that those rights do not constitute Exclusivity Rights which arose on or after 30 March 1995).

5. CAPACITY MANAGEMENT POLICY

The Network is a Contract Carriage Pipeline.

A Network User may trade Contracted Capacity in accordance with the Trading Policy set out in section 6.

6. TRADING POLICY

6.1 Bare Transfers

Prior to using any Contracted Capacity that is the subject of a Bare Transfer, the transferee must notify Envestra of:

- the identity of the Network User that made the transfer or assignment;
- the amount of MDQ and MHQ that has been transferred or assigned;
- the location of the User Delivery Point which is the subject of the transfer; and
- any other information which Envestra reasonably requires concerning the nature of the Contracted Capacity that is the subject of the Bare Transfer.

6.2 Other Transfers

A Network User is permitted to transfer or assign all or part of its Contracted Capacity (other than by way of a Bare Transfer) with the prior written consent of Envestra, where the transfer or assignment is commercially and technically reasonable.

Envestra may withhold its consent only on reasonable commercial and technical grounds, and may make its consent subject to conditions, but only if they are reasonable on commercial and technical grounds.

Examples of the reasonable commercial or technical grounds upon which Envestra will withhold its consent or make its consent subject to conditions include:

- where there is insufficient Capacity at any point in the Network (either before or as a result of the transfer) to enable the proposed Contracted Capacity to be transferred or assigned to the proposed User Delivery Point;
- where Envestra would receive less revenue as a result of the proposed transfer or assignment of Contracted Capacity; and
- where the proposed transferee is unable to satisfy Envestra that it is able to meet the requirements set out in section 4 of this Access Arrangement.

6.3 Delivery and Receipt Points

A Network User is permitted to change a Delivery Point and/or Receipt Point from that specified in an Agreement with the prior written consent of Envestra where the change is commercially and technically reasonable.

Envestra may withhold its consent only on reasonable commercial and technical grounds, and may make its consent subject to conditions, but only if they are reasonable on commercial and technical grounds.

6.4 Procedure

The following procedure is to be followed in relation to transfers or assignments of Contracted Capacity (other than Bare Transfers) and changes to Delivery and/or Receipt Points:

- the party requesting the transfer/assignment or a change to a Delivery/Receipt Point shall submit a written request to Envestra, setting out the applicable details. A fee of \$75, payable at the time of the request, will apply to each request.

- Envestra will complete an analysis to determine whether the request is technically and commercially feasible and reasonable. The cost of completing this analysis will be borne by the party that makes the request. Charges for the analysis may be made in relation to Demand Delivery Points only, and may vary depending on the complexity of analysing the request, but will be agreed in advance with the party making the request. Costs will be based on an hourly rate of \$75 per person per hour for each hour after the first hour.

7. QUEUING POLICY

Subject to the remainder of this section, requests from Prospective Network Users will be processed in the order they are received.

Where there is sufficient Spare Capacity available in the Network to meet the needs of a Prospective Network User (who is at the top of the queue) at a nominated point in the Network, Envestra will offer the Spare Capacity at that point in the Network to that Prospective Network User.

Where there is insufficient Spare Capacity available at a nominated point in the Network to meet a Prospective Network User's request (having reached the top of the queue), Envestra will first offer that Prospective Network User any Spare Capacity that is capable of partly satisfying its request at that nominated point. Envestra may then undertake an investigation of Developable Capacity alternatives. Under these circumstances, Envestra may elevate the priority of other Prospective Network Users' requests affected by the proposed augmentation in the interests of optimising design and achieving efficiency in the structure and level of Tariffs. Envestra will only take such action where it is reasonable to do so and where it will not foreseeably disadvantage other Prospective Network Users, other than in relation to their position in the queue.

8. EXTENSIONS AND EXPANSIONS POLICY

Any extension or expansion of the Network will be treated in the manner set out in sections 8.1 and 8.2 below. Extensions and expansions of the Network include any Pipelines or other system assets added to the Network as it existed on 30 June 1998.

8.1 Coverage

All expansions of the Capacity of the Network within the Access Arrangement Period will automatically be included as part of the Network from the time the expansion comes into service.

All extensions to the Network within the Access Arrangement Period will be automatically included as part of the Network from the time the extension comes into service, unless the extension is a significant extension.

A significant extension is an extension to one or more Delivery Points, where the anticipated Quantity of Gas delivered exceeds 10TJ per year.

In this case, Envestra will have the option of treating the extension as either:

- part of the Network; or
- a stand-alone Pipeline, in which case Envestra will obtain the Regulator's written approval to exclude the extension prior to the extension entering into service. Envestra will have the option of including the stand-alone Pipeline as part of the Network at any subsequent review of the Access Arrangement for the Network.

Envestra will not have the option of treating a significant extension as a stand-alone Pipeline if the extension was assumed and included in the calculation of the Reference Tariffs.

8.2 Tariffs

8.2.1 *Effect on Haulage Reference Tariffs*

Reference Tariffs for Haulage Reference Services will be determined as set out below in relation to any extension or expansion that is to be included as part of the Network:

- to the extent that an extension or expansion meets the economic feasibility test in section 8.16(b)(i) of the Code, the Tariff for each Haulage Reference Service will be the Prevailing Tariff prior to the extension or expansion; or
- to the extent that an extension or expansion has system wide benefits and Envestra believes that these benefits justify the approval of a higher Reference Tariff for a Haulage Reference Service for all Network Users, Envestra will seek the Regulator's approval of a higher Haulage Reference Tariff for all Network Users in respect of the applicable Haulage Reference Service; or
- to the extent that an extension or expansion is necessary to maintain the safety, integrity or Contracted Capacity of Network Services and does not meet the economic feasibility test or does not provide system-wide benefits that, in the Regulator's opinion, justifies a higher Haulage Reference Tariff for all Network Users in respect of the applicable Haulage Reference Service, Envestra may seek revisions to the Access Arrangement to provide for new Tariff arrangements; or
- as provided for in section 3.3.1, to the extent that an extension or expansion does not satisfy any of the requirements of section 8.16 of the Code, Envestra may apply to the

Regulator to impose a Surcharge in relation to that New Facilities Investment, or agree a Capital Contribution with a User in accordance with section 8 of the Code.

In accordance with section 8.16(b)(i) of the Code, for any expansion of the Capacity or extension to the Network to be economically feasible, the Anticipated Incremental Revenue generated over the economic life of the New Facility must exceed the New Facilities Investment.

8.2.2 *Relationship to Reference Tariff Policy*

Section 8.2.1 is to be applied in conjunction with section 3.3.1.

9. REVIEW OF THE ACCESS ARRANGEMENT

9.1 Revisions Submission Date

Envestra will submit revisions to this Access Arrangement to the Regulator on or before 1 January 2005.

9.2 Revisions Commencement Date

The revisions to this Access Arrangement referred to in section 9.1 will commence on the latter of 1 July 2006 and the date on which their approval takes effect under the Code.

10. GLOSSARY

In this Access Arrangement and the Access Arrangement Information , unless the contrary intention appears:

- (1) ‘**Adelaide Region**’ means the area shown in Annexure B as the Adelaide Region.
- (2) ‘**Agreement**’ means the contract between Envestra and a Network User, which is constituted of the terms and conditions set out in Annexure E and the Specific Terms and Conditions.
- (3) ‘**Ancillary Reference Service**’ means a Network Service described in section 2.3 of this Access Arrangement.
- (4) ‘**Business Day**’ means a day other than a Saturday, Sunday or public holiday in South Australia.
- (5) ‘**Central Zone**’ means the area within the Adelaide Region that is shown in Annexure D as the Central Zone.
- (6) ‘**Charges**’ means the charges payable by the Network User under the Agreement and, in relation to a User Delivery Point, means the charges payable by the Network User in relation to that Delivery Point as determined in accordance with the Agreement
- (7) ‘**Code**’ means the National Third Party Access Code for Natural Gas Pipeline Systems.
- (8) ‘**Commercial Delivery Point**’ has the meaning given to it in section 2.2.3 of this Access Arrangement.
- (9) ‘**Commercial Haulage Service**’ means the Network Service that is described in section 2.2.3 of this Access Arrangement.
- (10) ‘**CPI**’ means the Consumer Price Index (All Groups Weighted Average for the Eight Capital Cities) as published by the Australian Bureau of Statistics or its successor or, if that Consumer Price Index is not published for any reason, whatever alternative index Envestra determines (with the Regulator’s approval) from time to time is reasonably equivalent to that Consumer Price Index.
- (11) ‘**Credit Policy**’ means the policy described in section 4.4 of this Access Arrangement.
- (12) ‘**Cubic Metre**’, in relation to Gas, means the amount of that Gas which, at Standard Conditions, would occupy a volume of one cubic metre.
- (13) ‘**Customer**’ means any person to whom Gas is, or is to be, supplied through the Network.
- (14) ‘**Customer Service Code**’ means the Natural Gas Customer Service Code (AG 755 - 1998) published by The Australian Gas Association and as varied from time to time.
- (15) ‘**Cycle**’, in relation to a Demand Delivery Point, means the period between any two readings of the Metering Equipment at that Delivery Point which are 30 days, or approximately 30 days, apart and, in relation to a Volume Delivery Point, means the period between any two readings of the Metering Equipment at that Delivery Point which are 90 days, or approximately 90 days, apart.
- (16) ‘**Delivery Point**’ means a point on the Network at which Gas is, or is to be, delivered out of the Network.
- (17) ‘**Demand Delivery Point**’ has the meaning given to it in section 2.2.2 of this Access Arrangement.
- (18) ‘**Demand Haulage Service**’ means the Network Service that is described in section 2.2.2 of this Access Arrangement.

- (19) **‘Distribution Licence’** means a licence granted to Envestra under the *Gas Act 1997 (SA)*, which authorises the operation of the Network or any part of it.
- (20) **‘Domestic Delivery Point’** has the meaning given to it in section 2.2.1 of this Access Arrangement.
- (21) **‘Domestic Haulage Service’** means the Network Service that is described in section 2.2.1 of this Access Arrangement.
- (22) **‘Gas’** has the meaning given to ‘natural gas’ in the *Gas Pipelines Access (South Australia) Act 1997*.
- (23) **‘GJ’** means a gigajoule, which is one thousand megajoules.
- (24) **‘Gross Heating Value’** means the energy produced by the complete combustion of one Cubic Metre of Gas with air, at Standard Conditions, the product of combustion cooled to a temperature of fifteen (15) degrees Celsius and the water vapour formed by the combustion condensed to a liquid state.
- (25) **‘Gross Negligence’** means a level of negligence that demonstrates a complete and utter disregard for the consequences of an action or omission.
- (26) **‘Haulage Reference Service’** means the Commercial Haulage Service, the Demand Haulage Service or the Domestic Haulage Service.
- (27) **‘Impost’** means any royalty, duty, excise, tax, impost, levy, fee or charge (including, but without limitation, any goods and services tax) imposed by the Commonwealth of Australia or any State or Territory of Australia on or in respect of the Network (or any part of it) or on or in respect of the operation, repair, maintenance, administration or management of the Network (or any part of it) or on or in respect of the provision of Network Services.
- (28) **‘Interest Rate’** means the Commonwealth Bank of Australia corporate overdraft reference rate, as varied from time to time.
- (29) **‘Interruptible Delivery Point’** means any Delivery Point through which Envestra delivers Gas, or is to deliver Gas, pursuant to a contract or arrangement that permits or authorises Envestra to interrupt or curtail the delivery of Gas at any time and for any reason without penalty or sanction or any other consequence adverse to the interests of Envestra.
- (30) **‘Maximum Daily Quantity’** or **‘MDQ’**, in relation to a Delivery Point, means the maximum Quantity of Gas which Envestra is required to deliver through that Delivery Point to or for the account of a Network User during any Network Day, as specified in, or determined in accordance with, the Specific Terms and Conditions, as increased from time to time in accordance with clauses 6.4, 6.5, 6.6, 6A.1, 7.4 and 7.5 of the terms and conditions set out in Annexure E, and as decreased from time to time in accordance with clauses 7A.3 and 7A.4 of those terms and conditions.
- (31) **‘Maximum Hourly Quantity’** or **‘MHQ’**, in relation to a Demand Delivery Point means one twelfth of the MDQ for that Delivery Point, from time to time, unless agreed otherwise.
- (32) **‘Metering Equipment’** means metering equipment owned or operated by Envestra at a Delivery Point.
- (33) **‘Metering Year’**, in relation to a Delivery Point, means the period between any two readings of the Metering Equipment at that Delivery Point which are 12 months, or approximately 12 months, apart.
- (34) **‘Negotiated Service’** means a Network Service of the type described in section 2.4 of this Access Arrangement.

- (35) **‘Network’** means the distribution mains that are the subject of this Access Arrangement from time to time, together with inlets, regulators, metering equipment, pipes and all ancillary equipment.
- (36) **‘Network Day’** means a period of 24 consecutive hours that commences at 6:00am Central Standard Time.
- (37) **‘Network Service’** means a Service provided by means of the Network.
- (38) **‘Network User’** means a person who has a current contract for a Network Service or where there has been an arbitration, has an entitlement to a Network Service.
- (39) **‘Network User’s Customer’** means any person to whom a Network User supplies Gas, or is to supply Gas, through the Network.
- (40) **‘New Impost’** means any Impost that was not in force on 1 January 1999 or that was in force but is applied, calculated or determined at a different rate or in a different way to the way it was applied, calculated or determined in the period prior to 1 January 1999.
- (41) **‘Northern Zone’** means the area within the Adelaide Region that is shown in Annexure D as the Northern Zone.
- (42) **‘North-Western Zone’** means the area within the Adelaide Region that is shown in Annexure D as the North-Western Zone.
- (43) **‘Overrun Rate’** in relation to a given Network Day, means the amount specified as the Overrun Rate in the Tariff Schedule applicable on that Network Day.
- (44) **‘Peterborough Region’** means the area shown in Annexure B as the Peterborough Region.
- (45) **‘Planned Maintenance’** means maintenance that is planned in advance, where the plan to undertake that maintenance was developed or formulated at least seven days before the date on which that maintenance is scheduled to occur.
- (46) **‘Port Pirie Region’** means the area shown in Annexure B as the Port Pirie Region.
- (47) **‘Prospective Network User’** means a person who seeks or who is reasonably likely to seek to enter into a contract for a Network Service and includes a Network User who seeks or may seek to enter into a contract for an additional Network Service.
- (48) **‘Quantity of Gas’** means the quantity of Gas determined in accordance with the Agreement.
- (49) **‘Receipt Point’** means a point on the Network at which Gas is, or is to be, received into the Network.
- (50) **‘Reference Tariff’** means the Tariff specified in this Access Arrangement as corresponding to a Haulage Reference Service or an Ancillary Reference Service.
- (51) **‘Region’** means the Adelaide Region, the Peterborough Region, the Port Pirie Region, the Riverland Region, the South East Region or the Whyalla Region.
- (52) **‘Regulator’** means the South Australian Independent Pricing and Access Regulator.
- (53) **‘Related Haulage Agreement’** (in an Agreement between Envestra and a Network User) means any other agreement between Envestra and that Network User under which Envestra delivers, or is to deliver, Gas through the Network to or for the account of that Network User.
- (54) **‘Riverland Region’** means the area shown in Annexure B as the Riverland Region.
- (55) **‘South East Region’** means the area shown in Annexure B as the South East Region.
- (56) **‘Southern Zone’** means the area within the Adelaide Region that is shown in Annexure D as the Southern Zone.

- (57) **‘Specific Terms and Conditions’** means the specific terms and conditions agreed between Envestra and a Network User in relation to a Network Service.
- (58) **‘Standard Conditions’** means a temperature of 15 degrees Celsius and an absolute pressure of 101.325 kilopascals.
- (59) **‘Standard Metering Equipment’** in respect of a Delivery Point means the least cost technically acceptable metering equipment normally used in the Network for measurement of consumption for a Delivery Point with similar characteristics.
- (60) **‘Start Date’**, in relation to an Agreement, means the date on which Envestra commences, or is to commence, providing Network Services to a Network User pursuant to that Agreement as specified in, or determined in accordance with, the Specific Terms and Conditions.
- (61) **‘Tariff Schedule’** means the tariff schedule which forms Annexure C to this Access Arrangement or, if Envestra has published a revised tariff schedule, the tariff schedule in effect from time to time.
- (62) **‘Technical Regulator’** has the meaning given to it in the Gas Act 1997 (SA).
- (63) **‘Telemetered Delivery Point’** means a Demand Delivery Point which has Metering Equipment that takes readings of the Volume or Quantity of Gas delivered through that Delivery Point no less frequently than once in every 60 minutes.
- (64) **‘Term’**, in relation to an Agreement, means the term of that Agreement as specified in, or determined in accordance with, the Specific Terms and Conditions.
- (65) **‘TJ’** means a terajoule, which is one thousand gigajoules.
- (66) **‘Transmission Operator’** means the operator of a transmission or other pipeline through which Gas is delivered to any Receipt Point.
- (67) **‘Unaccounted for Gas’ or ‘UAG’** means the difference between the Quantity of Gas received into the Network and delivered out of the Network, over a specified period of time.
- (68) **‘User Delivery Point’**, in relation to a Network User, means a Delivery Point through which Envestra delivers Gas, or is to deliver Gas, to or for the account of that Network User, as specified in, or determined in accordance with, the Specific Terms and Conditions.
- (69) **‘User Receipt Point’**, in relation to a Network User, means a Receipt Point through which Gas is delivered, or is to be delivered, to or for the account of that Network User, as specified in, or determined in accordance with, the Specific Terms and Conditions.
- (70) **‘Volume Delivery Point’** means a Commercial Delivery Point or a Domestic Delivery Point.
- (71) **‘Volume of Gas’** means volume in Cubic Metres.
- (72) **‘Whyalla Region’** means the area shown in Annexure B as the Whyalla Region.
- (73) **‘Year’** means any period of 12 consecutive months.
- (74) **‘Zone’** means the Central Zone, the Northern Zone, the North-Western Zone or the Southern Zone.



(ABN 19 078 551 685)

Access Arrangement Information

For the
South Australian Gas Distribution System

19 November 2002

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DISCLAIMER

This document has been prepared solely for the purpose of compliance with the *Gas Pipelines Access (South Australia) Act 1997* and the National Third Party Access Code for Natural Gas Pipeline Systems.

It is designed solely to enable Network Users and Prospective Network Users to understand the derivation of elements in the accompanying Access Arrangement and to form an opinion as to the compliance of that Access Arrangement with the provisions of the National Third Party Access Code.

This document is not intended for any purposes other than those envisaged by the Code.

1. INTRODUCTION

1.1 Purpose of this Document

Following the Final Decision by the South Australian Independent Pricing and Access Regulator (the ‘Regulator’) in December 2001, this document is the revised Access Arrangement Information in relation to the Access Arrangement for the South Australian Distribution System (‘the Network’) owned by Envestra Limited (‘Envestra’) (ACN 078 551 685). It supersedes the revised Access Arrangement Information dated 21 July 1999. It has been submitted by Envestra to the Regulator in accordance with section 2 of the National Third Party Access Code for Natural Gas Pipeline Systems (‘the Code’). The Code forms Schedule 2 to the *Gas Pipelines Access (South Australia) Act 1997*.

The purpose of this document is to set out such information as is necessary to enable Users and Prospective Users to understand the derivation of the elements of the Access Arrangement and to form an opinion as to the compliance of the Access Arrangement with the provisions of the Code.

1.2 Background

Envestra commenced operations on 1 July 1997. It is the owner of the Network and other natural gas distribution infrastructure assets in Queensland, Victoria, New South Wales and the Northern Territory. Envestra is also the owner of the Riverland natural gas transmission pipeline in South Australia, the Mildura transmission pipeline in SA/Victoria and the Palm Valley transmission pipeline in the Northern Territory.

Envestra has contracted various aspects of the operation and management of the Network (and other gas distribution assets) to Origin Energy Asset Management Limited (OEAM) under an Operating and Management Agreement. Under the Operating and Management Agreement, OEAM is contracted to perform a range of activities on behalf of Envestra, including:

- design and construction of networks;
- operation and maintenance of networks;
- network marketing; and
- management of the haulage of gas through each network.

Envestra reimburses OEAM for its costs and expenses in relation to the provision of these services and pays OEAM a management fee. The Agreement is structured so that OEAM has the incentive to reduce its operating and capital costs in a prudent and efficient manner.

In carrying out its obligations under the Operating and Management Agreement in relation to the Network, OEAM is required to comply with Envestra’s Access Arrangement for the Network.

1.3 The Network

The Network (described as the ‘Envestra SA Distribution Systems’ in Schedule A of the Code) means the distribution mains, inlets, regulators, meter equipment, pipes and ancillary equipment that are the subject of the Access Arrangement from time to time. The Network services the Adelaide (including the Barossa Valley), Peterborough, Port Pirie, Riverland, South-East and Whyalla Regions. A map providing an overview of the Network in metropolitan Adelaide (where approximately 95% of the Network is located) is included as Annexure A of the Access Arrangement. Other maps showing the Regions of the Network and Zones within the Adelaide Region are included as Annexures B and D of the Access Arrangement. More comprehensive maps of the Network have been submitted to the

Regulator. Additional details in relation to the Network are also included in this Access Arrangement Information.

1.4 Interpretation

Unless otherwise defined in the Access Arrangement (see section 10 of the Access Arrangement), terms used in the Access Arrangement and this document have the same meaning as they have in the Code. Terms which are defined in the Code or in section 10 of the Access Arrangement commence with capital letters.

1.5 Commencement Date

The Access Arrangement will come into effect on the date on which its approval takes effect under section 2 of the Code.

1.6 Contact Details

The contact person for further details in relation to this Access Arrangement Information and the Access Arrangement to which it relates is:

Mr Andrew Staniford
National Manager, Regulatory Affairs
Envestra Limited
Level 10, 81 Flinders Street
Adelaide SA 5000
Phone: (08) 8227 1500
Fax: (08) 8227 1511

2. CONTENTS OF THE ACCESS ARRANGEMENT

2.1 Code Requirements

Section 2.5 of the Code states that the Access Arrangement may include any relevant matter, but must include at least the elements described in sections 3.1 to 3.20 of the Code. Sections 3.1 to 3.20 of the Code require the Access Arrangement to include the following elements:

- a Services Policy (sections 3.1 and 3.2);
- a Reference Tariff for at least one Service that is likely to be sought by a significant part of the market (a Reference Service) and for each other Service that is likely to be sought by a significant part of the market and for which the Regulator considers a Reference Tariff should be included (sections 3.3 to 3.4);
- a Reference Tariff Policy which describes the principles to be used to determine Reference Tariffs (section 3.5);
- the terms and conditions on which the Service Provider will supply each Reference Service (section 3.6);
- a Capacity Management Policy – a statement of whether the Pipeline is a Contract Carriage Pipeline or a Market Carriage Pipeline (sections 3.7 and 3.8);
- a Trading Policy which, in the case of Contract Carriage Pipelines, describes the rights of a User to trade its right to a Service to another person (sections 3.9 to 3.11);
- a Queuing Policy – a policy for determining the priority a Prospective User has to obtain access to Spare Capacity and Developable Capacity (sections 3.12 to 3.15);

- an Extensions/Expansions Policy – a policy which sets out, among other things, whether any extension or expansion will be treated as part of the Covered Pipeline under the Code and how the extension or expansion will affect Reference Tariffs (section 3.16); and
- a Revisions Submission Date and a Revisions Commencement Date (sections 3.17 to 3.20). These are the dates by which the Service Provider must submit revisions to the Access Arrangement and upon which these revisions are intended to take effect.

Sections 2.2 and 2.6 of the Code provide that Access Arrangement Information must be submitted with an Access Arrangement and must contain such information as, in the opinion of the Regulator, would enable Users and Prospective Users to:

- understand the derivation of the elements in the Access Arrangement; and
- form an opinion as to the compliance of the Access Arrangement with the provisions of the Code.

Section 2.7 of the Code provides that the Access Arrangement Information may include any relevant information, but must include at least the categories of information described in Attachment A to the Code.

Section 2.8 of the Code provides that information included in the Access Arrangement Information, including information of the type described in Attachment A, may be categorised or aggregated to the extent necessary to ensure the disclosure of the information is, in the opinion of the Regulator, not unduly harmful to the legitimate business interests of the Service Provider or a User or Prospective User.

2.2 Compliance

The Access Arrangement for the Network includes each of the elements that are required to be included in an Access Arrangement. This document addresses the compliance of each element of the Access Arrangement with the requirements of the Code.

This Access Arrangement Information also addresses the categories of information described in Attachment A to the Code (see section 2.3 below). In accordance with the Code this information has been categorised and/or aggregated where necessary to prevent undue harm to the legitimate business interests of Network Users, Prospective Network Users and Envestra.

2.3 ‘Attachment A’ Requirements

Attachment A to the Code gives examples of the minimum information requirements that the Access Arrangement Information is to contain. This Access Arrangement Information provides such information where applicable. However, because the Regulator’s Final Decision stipulates various inputs and parameters, there are areas where the Final Decision can be referred to for more comprehensive information on the derivation of those inputs.

Category 1: Information Regarding Access & Pricing Principles

- (a) Tariff determination methodology (section 5.2).
- (b) Cost allocation approach (section 5).
- (c) Incentive structures (section 6).

Category 2: Information Regarding Capital Costs

- (a) Asset values for each pricing zone, service or category of asset (section 4).
- (b) Information as to asset valuation methodologies (section 4.2).
- (c) Assumptions on economic life of asset for depreciation (section 4.2).
- (d) Depreciation (section 4.2).

- (e) Accumulated depreciation (section 4.2).
- (f) Committed capital works and capital investment (sections 4.2).
- (g) Description of nature and justification for planned capital investment (sections 4.2).
- (h) Rates of return – on equity and on debt (section 4.2).
- (i) Capital structure – debt/equity split assumed (section 4.2).
- (j) Equity returns assumed – variables used in derivation (section 4.2).
- (k) Debt costs assumed – variables used in derivation (section 4.2).

Category 3: Information Regarding Operations & Maintenance

- (a) Fixed versus variable costs (section 4.2).
- (b) Cost allocation between zones, services or categories of asset and between regulated/unregulated (section 4.2).
- (c) Wages and salaries – by pricing zone, service or category of asset (section 4.2).
- (d) Cost of services by others including rental equipment (section 4.2).
- (e) Gas used in operations – unaccounted for System Use Gas to be separated from compressor fuel (sections 3.2.2.1 and 4.2).
- (f) Materials and supply (section 4.2).
- (g) Property taxes (section 4.2).

Category 4: Information Regarding Overheads & Marketing Costs

- (a) Total Service Provider costs at corporate level (section 4.2).
- (b) Allocation of costs between regulated/unregulated segments (section 4.2).
- (c) Allocation of costs between particular zones, services or categories of asset (section 4.2).

Category 5: Information Regarding System Capacity & Volume Assumptions

- (a) Description of system capabilities (section 13).
- (b) Map of piping system – pipe sizes, distances and maximum delivery capability (section 13 and Annexure A of the Access Arrangement).
- (c) Average daily and peak demand at ‘city gates’ defined by volume and pressure (section 13)
- (d) Total annual volume delivered – existing term and expected future volumes (section 13).
- (e) Annual volume across each pricing zone, service or category of asset (section 13).
- (f) System load profile by month in each pricing zone, service or category of asset (section 13).
- (g) Total number of customers in each pricing zone, service or category of asset (section 13).

Category 6: Information Regarding Key Performance Indicators

- (a) Industry KPIs used by the Service Provider to justify ‘reasonably’ incurred costs (section 4.2).
- (b) Service Provider’s KPIs for each pricing zone, service or category of asset (section 4.2).

3. SERVICES POLICY

3.1 Code Requirements

Section 3.1 of the Code states that an Access Arrangement for a Covered Pipeline must include a policy on the Service or Services to be offered. The Code refers to this policy as a Services Policy.

Section 3.2 of the Code states that the Services Policy must comply with certain principles. These principles are as follows:

- the Access Arrangement must include a description of one or more Services that the Service Provider will make available to Users or Prospective Users, including:
 - one or more Services that are likely to be sought by a significant part of the market; and
 - any Service or Services which in the Regulator's opinion should be included in the Services Policy (section 3.2(a) of the Code);
- to the extent practicable and reasonable, a User or Prospective User must be able to obtain a Service which includes only those elements that the User or Prospective User wishes to be included in the Service (section 3.2(b) of the Code); and
- to the extent practicable and reasonable, a Service Provider must provide a separate Tariff for an element of a Service if this is requested by a User or Prospective User (section 3.2(c) of the Code).

3.2 Compliance and Derivation

Section 2 of the Access Arrangement sets out the Services Policy for the Network. It includes a description of the Network Services available to Network Users and Prospective Network Users. The Network Services fall into three categories:

- three Haulage Reference Services;
- three Ancillary Reference Services; and
- Negotiated Services.

Section 2.1 of the Access Arrangement states that, to the extent practicable and reasonable, a Network User or Prospective Network User may obtain a Network Service that includes only those elements that the Network User or Prospective Network User wishes to be included in the Network Service. This complies with section 3.2 (b) of the Code.

Section 2.1 of the Access Arrangement also states that, to the extent practicable and reasonable, Envestra will provide a separate Tariff for an element of a Network Service if this is requested by a Network User or Prospective Network User. This complies with section 3.2 (c) of the Code.

3.2.1 *Haulage Reference Services*

Section 2.2 of the Access Arrangement provides for three Haulage Reference Services. They are as follows:

- haulage of Gas to a Domestic Delivery Point (Domestic Haulage Service);
- haulage of Gas to a Demand Delivery Point (Demand Haulage Service); and
- haulage of Gas to a Commercial Delivery Point (Commercial Haulage Service).

The Haulage Reference Services also include:

- odourisation of Gas;
- provision and maintenance of Metering Equipment (as defined in the Access Arrangement); and
- meter reading on a quarterly basis for Domestic and Commercial Delivery Points and on a monthly basis for Demand Delivery Points.

Each Haulage Reference Service will consist of accepting Gas into the Network at a Receipt Point and delivering an equivalent quantity of Gas to a Delivery Point in the Network. Further details on the treatment of UAG are in section 3.2.2 below.

In accordance with section 2.2 of the Access Arrangement, a Delivery Point at a given time is a:

- Domestic Delivery Point for a given period if the Gas delivered through that Delivery Point during that period was used primarily for domestic purposes;
- Demand Delivery Point where:
 - that Delivery Point is not a Domestic Delivery Point at that time; and
 - any of the following apply:
 - the Quantity of Gas delivered through that Delivery Point during the then most recent Metering Year was equal to or greater than 10TJ; or
 - the Quantity of Gas delivered or deemed to have been delivered through that Delivery Point on any Network Day during the then most recent Cycle was equal to or greater than 50GJ;
- Commercial Delivery Point where the Delivery Point is not a Demand Delivery Point or Domestic Delivery Point at that time.

Where past metering information is not available (for example, in the case of a new Delivery Point), the terms and conditions in Annexure E of the Access Arrangement provide that a User may nominate a Delivery Point to be a Demand Delivery Point if it has reasonable grounds for doing so. This nomination will apply until metering information shows it to be incorrect. Where no nomination is made and the Delivery Point is not a Domestic Delivery Point, the default position is that it is a Commercial Delivery Point. The terms and conditions provide for adjustments to be made to a bill where a Delivery Point is initially misclassified.

Invoices will be issued to Network Users on a monthly basis. The terms and conditions provide for prepayments to be made at the commencement of an Agreement and in each subsequent month. Invoices will be issued following the end of each month and will reconcile payments owing to Envestra with the amount of the prepayment.

At the commencement of each Agreement in respect of a Demand Delivery Point, the User is required to nominate an MDQ and an MHQ for that Delivery Point.

Details of Domestic, Commercial and Demand Delivery Points in the Network and deliveries of Gas to those Delivery Points are included in section 13 of this Access Arrangement Information.

Based on the current Services provided by the Network, the Haulage Reference Services are the haulage Services that are likely to be sought by a significant part of the market during the Access Arrangement Period. Envestra is unaware of any changes in circumstances or future developments that are likely to materially affect this situation during the Access Arrangement Period.

The Reference Tariffs applicable to each of the Haulage Reference Services are set out in Annexure C of the Access Arrangement. The methodology adopted by Envestra in developing the Reference Tariffs is set out in section 5 of this Access Arrangement Information.

Envestra will provide each Haulage Reference Service in accordance with, and subject to, the terms and conditions referred to in section 4 of the Access Arrangement. These are discussed further in section 7 of this document.

3.2.2 Unaccounted for Gas

3.2.2.1 General

UAG is Gas that is ‘lost’ or unaccounted for in the Network, predominantly due to leakage and metering tolerances. There are no compressors used in the Network and therefore no compressor fuel use. The amount of UAG in a Gas distribution system is generally related to its age and materials of construction, as it is the older cast iron pipes and components that have the highest incidence of leakage. Envestra endeavours to minimise UAG through its asset management and replacement programs. It is recognised, however, that there is a level below which the cost of reducing UAG outweighs the cost of Gas lost and leak repairs. Envestra has taken into account this cost-benefit relationship and other factors (such as safety) in determining a program to manage and reduce UAG in the Network.

As set out in section 4.2.5 of this document, Envestra’s forecast New Facilities Investment includes a co-ordinated program of mains replacement (MRP) in addition to the normal program of ad-hoc replacement in certain parts of the Network during the Access Arrangement Period. This, together with an appropriate level of leak repairs (as provided for in the Non-Capital Costs forecast set out in section 4.2.4 of this Access Arrangement Information), forms the main part of Envestra’s UAG management/reduction program.

Based on this program and the reduction in level of UAG mandated by the Final Decision, the forecast cost of UAG in the Network for each year of the Access Arrangement Period is set out in the following table.

UAG (\$m)	01/02	02/03	03/04	04/05	05/06
	4.700	4.794	4.888	4.982	5.076

Table 1: Forecast UAG

The forecasting methodology is discussed in section 3.2.2.2 of this document, while the method for allocating UAG is discussed in section 3.2.2.3.

The cost of UAG has been incorporated into relevant Haulage Reference Tariffs. Envestra has a contract for the provision of UAG. The UAG cost that has been incorporated into Reference Tariffs reflects the cost to Envestra under the contract.

3.2.2.2 UAG Determination Methodology

The level of UAG was initially determined by Envestra for 12-month periods ending 31 March each year (UAG Year). Calculating UAG at this time of the year yields the most accurate measure of UAG volume. Because Domestic Delivery Point meters are only read every three months and the impact of heating loads on domestic consumption is minimal in January, February and March, the impact of variations in weather conditions on the UAG calculation is minimised.

The forecast UAG was calculated based on the number of kilometres of pipeline (mains) forecast to be replaced over the Access Arrangement Period, with UAG reducing in proportion to the length of mains replaced. The UAG calculation was undertaken for each month of each year of the Access Arrangement Period to determine the cumulative UAG reduction and the forecast UAG for each year of the Access Arrangement Period. This forecast was then reduced by 6% per year in accordance with the Final Decision.

3.2.2.3 UAG Allocation Methodology

As mandated in the Final Decision, 80% of UAG has been allocated to the Volume market and 20% to the Demand market. The allocation of UAG costs to each of the Domestic and Commercial Markets is the same as that used in allocating Non-Capital costs, ie 50% customer-based and 50% load-based.

3.2.3 Ancillary Reference Services

In addition to the Haulage Reference Services, Envestra recognises that a number of additional Network Services may be requested by a significant part of the market. These Network Services are described as Ancillary Reference Services, and are set out in section 2.3 of the Access Arrangement. A description of each service and the expected frequency for each year of the Access Arrangement Period is as follows:

- Special Meter Reading Service – this Service comprises meter reading at the request of the Network User, that is in addition to the normally scheduled meter reading associated with the Haulage Reference Service.
- Inlet Disconnection Service – this Reference Service comprises the disconnection of pipework that joins a Domestic Delivery Point to the Network (ie. where the inlet service joins the gas mains); and
- Inlet Reconnection Service – this Reference Service comprises the reconnection to the Network of pipework that joins a Domestic Delivery Point to the Network, which Envestra has previously disconnected from the Network. This Service includes relighting any appliances installed at the place or premises to which Gas is delivered through the Delivery Point.

The Inlet Disconnection and Reconnection Ancillary Reference Services are defined to relate only to Domestic Delivery Points. The provision of Inlet Disconnection and Reconnection Services in relation to Demand and Commercial Delivery Points will be provided by Envestra as a Negotiated Service.

The Reference Tariffs applicable to each of the Ancillary Reference Services are set out in the Tariff Schedule which forms Annexure C to the Access Arrangement. The forecast for demand for these services and associated revenue is shown in the following table. The forecast demand is expected to remain stable for the duration of the Access Arrangement Period.

Ancillary Reference Services	Unit Cost (\$)	No. per year (for each yr)	Total Cost (\$k)
	01/02		
Special meter read	7	110,000	770

Disconnection	207	50	10
Reconnection	224	50	11
Total			792

Table 2: Forecast Ancillary Reference Services

The methodology adopted by Envestra in developing the Reference Tariffs is set out in section 5 of this Access Arrangement Information. Envestra will provide each of these Reference Services in accordance with, and subject to, the terms and conditions referred to in section 4 of the Access Arrangement.

3.2.4 Negotiated Services

In addition to the Reference Services described in sections 2.2 and 2.3 of the Access Arrangement, Envestra will make available other Network Services on the basis of commercially negotiated terms and conditions (including Tariffs). The Services will be provided subject to their provision being reasonable, both technically and practically.

Examples of Negotiated Services may include interruptible haulage services, odouring services, inlet disconnection and reconnection in relation to Commercial and Demand Delivery Points, and meter reading on a more or less frequent basis than provided under the Reference Services.

Negotiated Services will be provided in accordance with the terms and conditions referred to in section 4 of the Access Arrangement where appropriate and applicable (as determined by Envestra). Where the terms and conditions referred to in section 4 of the Access Arrangement are neither appropriate nor applicable to the provision of a particular Network Service, they will be agreed on a case-by-case basis to reflect the circumstances applying to the provision of the Network Service.

The Regulator has determined that Delivery Points connected to transmission pipelines (the Moomba to Adelaide Pipeline, Epic South-Eastern Pipeline, Riverland Transmission Pipeline, etc) are to be covered by the Access Arrangement. These Delivery Points are predominantly farm-taps, ie connections off a transmission pipeline that serve individual consumers. Due to the unique nature and location of the services supplied to each Delivery Point (eg. the service may involve odourisation and no haulage), such services are Negotiated Services, with tariffs commensurate with the cost of providing the individual service.

The total revenue requirement and building block inputs in sections 4 and 5 of this document exclude costs and revenue for Negotiated Services. The Asset Base excludes the Capital Value of assets used to supply Negotiated Services.

3.2.5 Service Standards and Quality

In addition to the terms and conditions applicable to the provision of a Network Service (ie those referred to in section 4 of the Access Arrangement or otherwise negotiated), Envestra will provide Network Services in accordance with certain minimum service standards and quality levels.

Section 2.5 of the Access Arrangement provides that Envestra will provide each Network Service in accordance with the provisions in any Distribution Licence or applicable law. Under its Distribution Licence in South Australia, Envestra is required to, among other things, meet certain key performance indicators such as average percentage metering errors and number of outages per year per 1000 customers. The Technical Regulator monitors these indicators in relation to the Network.

4. TOTAL REVENUE

4.1 Code Requirements

Section 8.4 of the Code provides that the Total Revenue can be calculated according to one of three approaches:

- a Cost of Service approach whereby Total Revenue is equal to the sum of
 - a Rate of Return on the value of the Capital Base; plus
 - depreciation of the Capital Base; plus
 - the operating, maintenance and other Non-Capital Costs incurred in providing all Services provided by the Pipeline;
- an Internal Rate of Return (IRR) approach where the Total Revenue will produce a forecast IRR consistent with the principles in sections 8.30 and 8.31 of the Code; and
- a Net Present Value (NPV) approach whereby the Total Revenue will produce a forecast NPV of zero. The NPV approach should use a discount rate that provides the Service Provider with a return consistent with the principles in sections 8.30 and 8.31 of the Code.

Section 8.4 also provides that the methodology used to calculate the Cost of Service, IRR or NPV should be in accordance with generally accepted industry practice. Section 8.6 provides that a range of values may be attributed to the Total Revenue and that the Regulator may have regard to performance indicators to determine a level of costs within this range.

4.2 Derivation and Compliance

In accordance with section 8.4 of the Code, Envestra has adopted a Cost of Service approach in the calculation of Total Revenue, ie revenue comprises a return on the Network assets attributable to the provision of Haulage Reference Services, depreciation on those assets, plus Non-Capital Costs.

The revenue to be derived from the provision of Haulage Reference Services is based on:

- a real pre-tax rate of return of 7.60% as per the Final Decision;
- an initial Capital Base of \$617m as at 30 June 1998 as per the Final Decision, adjusted each year for:
 - forecast New Facilities Investment (section 4.2.5);
 - depreciation calculated on a straight-line basis (section 4.2.3);
 - Redundant Capital;
 - inflation; and
- forecast Non-Capital Costs (section 4.2.4).

Ancillary Reference Services are to be provided on a cost recovery basis. Because there are no capital costs involved in the provision of the Ancillary Reference Services the revenue and costs associated with their provision have been excluded from the Total Revenue calculation.

4.2.1 Determination of Initial Capital Base

4.2.1.1 Code Requirements

The Code requires that an initial Capital Base be established for the first Access Arrangement for a Covered Pipeline. Sections 8.10 and 8.11 of the Code address the valuation of Covered Pipeline assets that were in existence when the Code became operative. The Network is such an asset. Section 8.10 states that when a Reference Tariff is first proposed for such a Pipeline the following factors should be considered when establishing the initial Capital Base for that Pipeline:

- the value that would result from taking the actual capital cost of the Covered Pipeline and subtracting the accumulated depreciation for those assets charged to Users (or thought to have been charged to Users) prior to the commencement of the Code;
- the value that would result from applying the DORC methodology;
- the value that would result from applying other well recognised asset valuation methodologies;
- the advantages and disadvantages of each asset valuation methodology applied;
- international best practice of Pipelines in comparable situations and the impact on the international competitiveness of energy consuming industries;
- the basis on which Tariffs have been (or appear to have been) set in the past, the economic depreciation of the Covered Pipeline, and the historical returns to the Service Provider from the Covered Pipeline;
- the reasonable expectations of persons under the regulatory regime that applied to the pipeline prior to the commencement of the Code;
- the impact on the economically efficient utilisation of gas resources;
- the comparability with the cost structure of new Pipelines that may compete with the Covered Pipeline;
- the price paid for any asset recently purchased by the Service Provider and the circumstances of that purchase; and
- any other factors the Regulator considers relevant.

Section 8.11 provides that the Capital Base for Covered Pipelines in existence at the commencement of the Code should normally not be outside the range of values determined through the application of the asset valuation methodologies in section 8.10(a) and 8.10(b) of the Code.

4.2.1.2 Valuation of the Network Assets

The Regulator has used a DORC methodology in determining the valuation of the Network. This methodology is discussed below.

Depreciated Optimised Replacement Cost (DORC)

A DORC asset valuation essentially involves establishing the cost of a new modern equivalent asset (using current technology) that is optimally sized and configured to deliver existing levels of service (ie to replace the existing system and service existing customers at existing locations), less an allowance for depreciation to reflect the remaining economic life of the asset.

In practice this involves:

- ‘optimising’ assets by scaling them down in size (eg to take advantage of optimum distribution pressures) or removing them from the asset base and reducing its value accordingly where there is significant excess capacity or are redundant;

- assessing the replacement cost of each asset, based on what each asset would be replaced with at the time of the valuation; and
- depreciating assets to reflect the proportion of their estimated useful life that remains.

Key assumptions used in generating the DORC valuation include:

- the replacement cost of mains and inlets was assessed in the context of brownfield conditions;
- small diameter medium density polyethylene pipe was adopted as *the Modern Engineering Equivalent* (MEE) for cast iron pipe, as well as for most high-pressure applications;
- overhead cost rate of 17.5% as per the Final Decision;
- a residual value of 12% for mains and inlets; and
- the following effective asset lives as per the Final Decision:

Asset	Adopted Useful Life
MAINS	
Polyethylene	60
Unprotected steel	60
Protected steel	120
Cast iron	85
INLETS	
Polyethylene	60
Unprotected steel	60
Protected steel	120

Table 3: Useful Lives of Mains and Inlets

The asset value resulting from applying the DORC asset valuation methodology to the Network system assets is set out in the following table.

	Optimised Replacement Cost (\$m)	Accumulated Depreciation (\$m)	Depreciated Optimised Replacement Cost (\$m)
Mains	534.7	161.1	373.6
Meters	71.3	38.7	32.6
Regulators & Inlets	332.3	122.4	209.9
Telemetry, Odourising & Computers	2.1	1.2	0.9
Total	940.4	323.4	617.0

Table 4: Depreciated Optimised Replacement Cost (30 June, 1998)

The following table compares various parameters of Envestra's Initial Capital Base with those in other jurisdictions.

	Westar (Victoria)	Multinet (Victoria)	Stratus (Victoria)	AGL ('99) (NSW) Proposed	Envestra (SA)
ORC (\$m)	969.7	1079.0	853.1	2884.0	940.4

	Westar (Victoria)	Multinet (Victoria)	Stratus (Victoria)	AGL ('99) (NSW) Proposed	Envestra (SA)
DORC (\$m)	673.6	718.8	616.3	2155.0	617
Mains (km)	7,585	8,735	8,082	20,830	6,841
Mains ORC (\$m)	575.9	509.5	453.7	2,026	535
Mains ORC/km (\$k)	75.9	58.3	56.1	97.3	78.2

Table 5: ICB Benchmarks¹

4.2.2 Weighted Average Cost of Capital

4.2.2.1 Code Requirements

Section 8.30 of the Code requires that the Rate of Return used in determining a Reference Tariff provide a return that is commensurate with market conditions for funds and the risk of delivering the Reference Service.

Section 8.31 provides that the Rate of Return may be based on a weighted average of the return applicable to each separate funding source (for example, debt and equity) and that the returns may be determined using a well accepted financial model such as the Capital Asset Pricing Model (CAPM). This section also provides that, in general, the weighted average return on funds should be calculated by reference to a financing structure that reflects standard industry structures, but that other approaches may be adopted where the Regulator is satisfied that to do so would be consistent with the objectives in section 8.1 of the Code.

4.2.2.2 Rate of Return Applied

In accordance with the Final Decision, Envestra has adopted a real pre-tax WACC of 7.60%. This compares with other rates of return as shown in the following table.

	Stratus (Vic)	Central West (NSW)	Albury Gas Co. (NSW)	East Gipps. (VIC)	Mildura (VIC)	GSN (NSW)	MAPS (SA)
Draft	7.0%	7.5%	7.75%	-	-	7.5%	6.70%
Final	7.75%	-	7.75%	8.82%	9%	7.75%	7.14%
Date	10/98	9/99	12/99	5/99	6/98	9/99	9/01
Regulator	ORG	ACCC	IPART	ORG	ORG	IPART	ACCC

Table 6: Comparison of rates of return²

4.2.3 Depreciation

4.2.3.1 Code Requirements

¹ From SAIPAR Final Decision, Table 5.7.1, p70

² From SAIPAR Final Decision, Table 6.7.1, p88

Section 8.33 of the Code requires that the Depreciation Schedule should be designed:

- so as to result in the Reference Tariff changing over time in a manner consistent with the growth of the market for the Services provided by the Pipeline;
- so that each asset or group of assets is depreciated over the economic life of that asset or group of assets;
- so that, to the maximum extent reasonable, the depreciation schedule is adjusted over the life of an asset or group of assets to reflect changes in the expected economic life of that asset or group of assets; and
- so that an asset is depreciated only once (subject to any capital redundancy).

4.2.3.2 Derivation and Compliance

Envestra has used a straight-line approach to depreciation based on the asset lives adopted in the DORC asset valuation in establishing its Depreciation Schedule for Network assets. Envestra submits this is consistent with the requirements of the Code. In particular, the straight-line approach ensures that:

- depreciation is allocated over the entire useful lives of the Network assets; and
- depreciation is consistent with the stable growth in demand forecast to occur over the Access Arrangement Period.

The straight-line approach also has the advantage of being:

- readily understandable; transparent; and
- easily capable of being replicated on an ongoing basis.

At the commencement of each Access Arrangement Period, Envestra will review asset lives and depreciation rates to reflect changes in technology and/or new information about the condition of Network assets. Envestra notes that the straight-line approach to depreciation has also been adopted by other regulated gas businesses and has been accepted by other regulators in Australia.

The Network asset lives and the applicable depreciation rates used in the derivation of the Reference Tariffs are summarised in the following table.

Asset Type	Life (years)	Depreciation Rate %
Mains and Inlets		
Cast Iron	85	1.2
Protected Steel	120	0.8
Unprotected Steel	60	1.7
Polyethylene	60	1.7
Meters		
Domestic	30	3.3
Industrial and Commercial	25	4.0
Pressure Regulating Stations	50	2.0
Odourising Plant	20	5.0
Telemetry	10	10.0

Table 7: Asset Lives and Depreciation Schedule for Network Assets

The amount in respect of meters in stock has been excluded from the Capital Base for the purposes of calculating the annual depreciation cost.

Total depreciation for the calculation of Haulage Reference Service revenue for each year of the Access Arrangement Period is forecast to be as follows:

	01/02	02/03	03/04	04/05	05/06
Depreciation (\$m)	14.32	15.12	15.85	16.56	17.29

Table 8: Haulage Reference Service - Forecast Depreciation Costs

4.2.4 Non-Capital Costs

4.2.4.1 Code Requirements

Section 8.36 of the Code defines Non-Capital Costs as being the operating, maintenance and other costs incurred in the delivery of a Reference Service.

Section 8.37 of the Code provides that Reference Tariffs may provide for the recovery of all Non-Capital Costs (or forecast Non-Capital Costs) except for those 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 Reference Services.

Pursuant to section 8.2(e) of the Code, any forecasts for Non-Capital Costs must represent best estimates arrived at on a reasonable basis.

4.2.4.2 Derivation and Compliance

Forecasts

Envestra has prepared forecasts of Non-Capital Costs for the Access Arrangement Period. These forecasts have been developed taking into account changes anticipated in the cost of managing and operating the Network in the provision of Haulage Reference Services over the Access Arrangement Period.

The Non-Capital Cost forecast is summarised in Table 6. Real reductions in Non-Capital Costs are forecast, reflecting forecast increases in labour productivity and cost rationalisations. Non-Capital Costs are expressed in nominal dollars and have been grouped into the following categories:

- Administration and General

Particular cost items include:

- treasury administration;
- statutory account preparation fees;
- audit fees;
- insurance premiums for the network assets, public liability and employee-related insurance costs;
- regulatory functions related to third party access (includes consultancy and legal costs);
- management;
- management reporting and operational analysis costs;
- Fringe Benefits Tax costs;
- rental and property management costs.

- Network Marketing Costs

Network Marketing costs are those costs that are incurred to maintain and grow the use of the Network. They include expenditure on the following activities:

- advertising to promote gas as safe, efficient and environmentally sound;
- advertising to promote awareness of gas applications and appliances;
- provision of direct advice on the utilisation and application of gas to key customer influencers such as builders, engineers and plumbers;
- the establishment and ongoing support of gas appliance penetration into homes and businesses; and
- the development of new applications for gas (eg as a vehicular fuel).

All Network Marketing activities are contracted to a third party, OEAM, under the Operating and Management Agreement. Envestra has no direct expenditure of Network Marketing Activities.

- **Operational Costs**

Operational costs are the costs of operating and maintaining the Network for the provision of Haulage Reference Services and include wages and salaries, materials and supplies, licence fees, contractor services and taxes. Activities undertaken include leak repairs, odouring, regulatory activities, billing, metering and monitoring of sites contaminated from activities associated with gas production. Operational costs also include the cost of providing UAG for the purposes of delivering haulage Services. The cost of UAG is a direct pass-through of the actual cost of gas purchased by Envestra.

Apart from those activities mentioned above, the major activities/items to which Non-Capital costs apply are as follows:

- Distribution Licence Fee

The distribution licence fee is paid to the Office of the Technical Regulator in South Australia as required by regulation.

- Field Operations

Includes the management, administration and direct costs associated with maintaining the network. The activities underlying these costs are set out below.

- The network needs to be operated in a safe and efficient manner. Engineering and planning activities such as ongoing analysis of capacity utilisation in the network (to ensure the network is being managed effectively and to ensure that supply risk is minimised) are undertaken to ensure that the network is operating effectively and that security of supply is not compromised. The costs of network analysis are included in the operations cost base.
- The network operator is also required to ensure that capital investment undertaken is economic and prudent. In order to comply with the requirement, capital evaluation of routine mains extensions to the network is undertaken, as is evaluation of all mains replacement proposals. The cost of the evaluation process is included in the field operations cost base.
- A physical asset register is fundamental to managing the network. Maintenance of physical asset register records (Distribution Asset Information System – DAIS) and the associated licensing costs for software are also included in the operations cost base.
- In order to maintain the integrity of the network, the network needs to ensure that reported leaks on mains are classified and repaired in accordance with AG603. Meter escapes reported by customers need to be attended within timeframes set out in the standards required by the Gas Act Regulations. The following costs are included in the operations cost base:

- labour employed to undertake leak classification and repairs;
 - materials required to make repairs to the system;
 - contractor costs associated with mains excavation and repairs;
 - council and contractor costs associated with reinstatement of roadways and footpaths where repairs have been undertaken;
 - maintaining equipment required to facilitate system repairs (such as calibration of gas detectors, maintenance of concrete cutters, compactors, compressors, tools, etc); and
 - maintenance of the vehicle fleet required to mobilise labour to job sites.
- Operations administration costs are also included in this category. These costs are required to cover staffing a ‘locations’ counter where mains location information is provided to third parties in an attempt to minimise leaks on and damage to the system as a result of third party excavation. Administration costs also cover data entry costs associated with processing claims from contractors and other suppliers to facilitate payment.
 - Leak surveys of the system are required under the licence conditions. The costs of maintaining the leak survey program including labour, vehicle and equipment costs are included in the operation costs base.
 - Procedures and systems need to be put in place and maintained effectively in order to ensure employees working in the field are operating in a safe environment and that work undertaken is in compliance with all necessary Codes and Standards. Operations costs include the costs of managing the Occupational Health and Safety and Environmental issues that arise as a result of field operations including administration and maintenance of the licences required by the company to operate legally, procedure development, implementation and training and auditing field compliance with established procedures.
- System Monitoring and Control

The costs of the gas control centre, maintaining the Remote Data Logging (RDL) and telemetry systems and sites, regulator maintenance and cathodic protection systems.

- Meter Reading and Billing

The costs of meter reading services, capture of metering information and processing and provision of data to enable retailers to bill their consumers.

- Gas Quality and Odourising

The Gas Act Regulations require that gas is odourised to a specified level. The costs associated with purchasing odorant, filling odorant tanks at points in the system, ensuring that odorant equipment is maintained in good repair and testing that the odorant levels are in compliance at various points in the network (through site visits and olfactory tests) are included in the gas quality costs.

The network is also required under the licence conditions to ensure that the gas in the network is within specification. This includes measurement of the calorific value of gas in the network, which is also required by retailers in order to bill consumers.

- Metering Operations

Most metering costs are treated as capital, however the network operator's staff undertake field visits to meter sites to ensure that equipment at the sites is in good repair, and operating accurately and in compliance with Gas Act Regulation requirements. The costs associated with maintaining meters in the field are included in the operating cost base.

- Technical Operations

A number of activities are included in this category. They include the costs associated with:

- the preparation and ongoing development of the Safety Case prepared for the Office of the Technical Regulator (OTR) under the licence conditions. Also included are the costs associated with the collection, collation and provision of KPI information to the OTR;
- maintaining the safety of gas installations and testing installations and appliances for compliance with AGA Codes and Australian Standards.

- Contaminated Site Monitoring

The cost of monitoring old gas works sites is included in the operational cost base in accordance with the Final Decision. The forecasts that are incorporated assume that there is no change in directives from the EPA. (There is no provision for site remediation in the operating cost forecast.)

Total Non-Capital Costs for the derivation of Haulage Reference Service revenue are as summarised in the following table:

(\$k)	01/02	02/03	03/04	04/05	05/06
Network Marketing Costs	6.2	6.4	6.5	6.7	6.9
Licence Fees	0.96	1.09	1.09	1.09	1.09
Telemetry	0.07	0.08	0.08	0.08	0.08
Contaminated Sites	0.34	0.35	0.36	0.37	0.37
UAG	4.70	4.79	4.89	4.98	5.08
Remaining Operating Costs	25.51	25.97	25.94	27.14	28.14
Efficiency Factor	-0.47	-0.48	-0.48	-0.5	-0.52
Total Non-Capital Costs	37.33	38.21	38.38	39.85	41.14

Table 9: Haulage Reference Service Forecast Non-Capital Costs

Annual Reporting

Envestra will report annually to the Regulator on its actual expenditure on each of the following categories:

- Direct costs - Network Maintenance and repairs, Cathodic Protection, Technical Services, Planning and Control;
- Admin & general costs - Finance, Customer Service, Human Resources, Information Technology, Regulatory, Other corporate costs, Network Marketing, Property Taxes, FRC.

Efficiency Gains

In accordance with the Final Decision, efficiency gains of 4% per year are factored into the above costs, with the exception of those costs associated with UAG, licence fees, contaminated sites and telemetry.

Fixed versus Variable Costs

Envestra has examined the cost drivers of the business at a departmental activity level. The results indicate that in the short-term the majority of Non-Capital Costs are fixed and do not vary with incremental usage or throughput. The only item that is likely to vary in the short-term with incremental usage or throughput is the cost of odorant, which, in turn, is a portion of the cost of odourisation.

Some other costs, for example meter, valve and regulator maintenance, may vary with incremental usage or throughput. However, changes in these costs will only be evident in the long term and are therefore unlikely to satisfy any common definition of ‘variable’. In addition, the proportion of these costs that do change with usage is impossible to identify and it is unlikely to be material.

Performance and Comparative Indicators

The following tables show various key performance indicators (KPIs) using Final Decision data, comparing the Network with other Gas utilities in Australia. The KPIs have been prepared using information provided by other Service Providers’ Access Arrangements and Supplementary Information documents.

	Westar (Victoria)	Multinet (Victoria)	Stratus (Victoria)	Envestra (SA)	AGL (NSW)	GSN (NSW)
Non-Cap costs per Customer (all grps)	\$75	\$65	\$78	\$109	\$141	\$108
Non-Cap costs per km of Mains	\$4,206	\$4,408	\$3,997	\$4,728	\$5,338	\$2,991
Marketing per Customer (all grps)	\$4.45	\$1.35	\$9.82	\$18.08	\$42.62	\$9.67
Non Capital Costs per GJ (all grps)	\$0.43	\$0.65	\$0.57	\$1.31	\$1.09	\$0.99
Customers/km main	56.3	67.87	51.76	49.8	37.9	27.6
Non-Capital Cost Allowance	\$31.9m	\$38.5m	\$32.3m	\$32.6m	\$111.2m	\$1.57m
No. of Customers	427,000	592,000	417,500	342,906	788,500	14,484
Km of Mains	7,585	8,735	8,082	6,892	20,830	525
Marketing Allowance	\$1.9m	\$0.8m	\$4.1m	\$6.2m	\$33.6m	\$0.14m
Total TJ	73,559	59,328	56,823	28,448	102,641	1,589

NB: Non-Capital Cost Forecasts (excluding UAFG) are for 99 (Westar, Multinet and Stratus) and 99/00 (AGL and GSN), 01/02 for Envestra

Table 10: Key Performance Indicators³

Envestra’s Network is physically smaller and has fewer customers than the Victorian and NSW networks. Gas consumption per customer is also significantly lower than in Victoria. These factors combine to produce higher costs per kilometre, customer and ‘GJ’ relative to Victoria as fixed costs are spread over a much smaller base. The high proportion of cast iron mains in the Network also requires higher maintenance expenditure (eg leak repairs) relative to networks in other States and results in higher SUG.

The following tables provide KPI and comparative information for each Service over the Access Arrangement Period.

³ From SAIPAR Final Decision, Table 7.3.10.1, p117

O&M Costs (\$/GJ)	01/02	02/03	03/04	04/05	05/06
Demand Haulage Service	0.39	0.39	0.40	0.40	0.41
Commercial Haulage Service	1.26	1.28	1.26	1.30	1.34
Domestic Haulage Service	2.71	2.75	2.71	2.80	2.87
Average	1.15	1.17	1.16	1.20	1.23

Table 11: O&M Cost per GJ, by Haulage Reference Service

	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Administration & General Costs	5.80	6.85	6.4	6.4	6.7	7.1	7.2	7.4
Network Marketing Costs	5.78	8.00	6.1	6.2	6.4	6.5	6.7	6.9
Operational Costs	26.63	24.96	25.4	24.7	25.1	24.8	25.7	26.8
Total Non-Capital Costs	38.21	39.80	37.9	37.3	38.2	38.4	39.6	41.1

Table 12: Non-Capital Costs

Admin & General Costs	Overall \$m	\$/Customer	\$/TJ	\$/km Mains
Envestra (01/02)	6.4	18.66	225	929
Multinet (1999)	6.7	11.3	113	779
Stratus (1999)	8.9	21.3	157	1,217
Westar (1999)	10.2	23.9	139	1,420
AGL (99/00)	36.7	46.6	358	1,804

Table 13: Comparison of Administration and General Costs⁴

4.2.5 New Facilities Investment

4.2.5.1 Code Requirements

Section 8.20 of the Code provides that Reference Tariffs may reflect the value of New Facilities Investment forecast to occur within the Access Arrangement Period. In order to do so, this investment must reasonably be expected to pass the requirements of section 8.16(a) and (b) of the Code when it is forecast to occur.

Section 8.16 requires New Facilities Investment:

⁴ From SAIPAR Final Decision, Table 7.2.3, p91

- not to exceed the amount that would be invested by a prudent Service Provider acting efficiently, in accordance with accepted good industry practice, and to achieve the lowest sustainable cost of delivering Services; and
- to meet one of the following criteria:
 - the Anticipated Incremental Revenue generated by the New Facility exceeds the New Facilities Investment; or
 - the New Facility has system-wide benefits that justify a higher Reference Tariff; or
 - the New Facility is necessary to maintain the safety, integrity or Contracted Capacity of Services.

In accordance with section 8.2(e) of the Code, forecasts of New Facilities Investment must also represent best estimates arrived at on a reasonable basis.

4.2.5.2 Code Requirements

New Facilities Investment forecast to occur within the Access Arrangement Period is based on the forecast level of capital expenditure required to allow Envestra to meet the forecast growth in demand for haulage Services and to meet system augmentation and replacement requirements.

The New Facilities Investment forecast is provided in the following table and is expressed in nominal dollars.

(\$m)	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Mains	13.63	15.15	11.88	14.73	10.13	7.67	6.50	6.52
Meters	4.06	4.00	5.06	5.14	5.12	5.12	5.09	5.09
Regulators/Inlets	3.84	4.34	5.13	5.08	4.83	4.84	5.00	5.02
RDL, Odourising Stations, Computers	0.59	0.38	1.13	1.06	0.06	0.06	0.06	0.06
Telemetry	0	0	0	0.71	0	0	0	0
Total	22.12	23.86	23.20	26.71	20.15	17.69	16.66	16.69

Table 14: New Facilities Investment

Financial analyses indicate that the forecast New Facilities Investment will facilitate the delivery of Network Services at sustainable lower prices over the medium to long-term and satisfy section 8.16(b)(i) of the Code. A significant portion of New Facilities Investment is for the mains replacement programme (MRP). Information provided to the Regulator demonstrates that the MRP meets the economic test of the Code.

4.2.6 Roll Forward of the Capital Base

The following table sets out the calculation for rolling forward the Capital Base, commencing with the Initial Capital Base as approved by the Regulator.

Date	30-Jun-98	30-Jun-99	30-Jun-00	30-Jun-01	30-Jun-02	30-Jun-03	30-Jun-04	30-Jun-05	30-Jun-06
Financial Year	1998	1999	2000	2001	2002	2003	2004	2005	2006
Opening Asset Base		617.0	634.7	663.4	693.5	723.2	746.3	766.8	786.0
- Inflation of opening asset base		7.7	17.7	20.5	17.3	18.1	18.7	19.2	19.7
Capital Expenditure		22.1	23.9	23.2	26.7	20.1	17.7	16.7	16.7
Closing Asset Base Pre Deprec.		646.8	676.2	707.1	737.5	761.4	782.6	802.6	822.4
Depreciation		-12.2	-12.8	-13.6	-14.3	-15.1	-15.9	-16.6	-17.3
Closing Asset Base	617.0	634.7	663.4	693.5	723.2	746.3	766.8	786.0	805.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Asset Base		625.8	649.0	678.4	708.3	734.7	756.5	776.4	795.5

Table 15: Roll forward of the Capital Base (\$m)

4.2.7 Total Revenue Outcome

The total revenue requirement for Haulage Reference Services, taking into account the requirements of the Final Decision, results in the following annual revenue requirement. (The Final Decision revenue requirement has been amended to take into account additional capital expenditure necessary to meet the increased gas demand forecast stipulated by the Regulator.)

	01/02	02/03	03/04	04/05	05/06
Revenue Requirement (\$m)	105.49	109.18	111.73	115.44	118.91

Table 16: Haulage Reference Services – Total Revenue Requirement

The following is a comparison of the proposed revenue for the first year of the Access Arrangement with that in others' access arrangements.

Network	Envestra (SA)	Stratus (Vic)	Westar (Vic)	Multinet (Vic)	AGLGN (NSW)
Revenue \$m	105.49 (01/02)	102.2 (99)	104.9 (99)	127.4 (99)	292.0 (99/00)
Revenue per customer	\$308	\$245	\$246	\$215	\$388
Revenue per TJ	\$3,708	\$1,799	\$1,426	\$2,147	\$2,844
Revenue divided by ICB	0.171	0.175	0.188	0.177	0.188

Table 17: Total Revenue Benchmarking⁵

5. REFERENCE TARIFFS

5.1 Code Requirements

Sections 3.3 to 3.5 and section 8 of the Code set out various requirements in relation to Reference Tariffs and the Reference Tariff Policy. Section 3.3 of the Code states that an Access Arrangement must include a Reference Tariff for:

- at least one Service that is likely to be sought by a significant part of the market; and
- each Service that is likely to be sought by a significant part of the market and for which the Regulator considers a Reference Tariff should be included.

Section 3.4 of the Code states that, unless a Reference Tariff has been determined through a competitive tender process (as outlined in sections 3.21 to 3.26 of the Code), an Access Arrangement and any Reference Tariff included in an Access Arrangement must, in the Regulator's opinion, comply with the Reference Tariff Principles set out in section 8 of the Code. Section 3.5 of the Code states that an Access Arrangement must also include a policy describing the principles that are to be used to determine a Reference Tariff (a Reference Tariff Policy) and it must, in the Regulator's opinion, comply with the Reference Tariff Principles in section 8 of the Code.

⁵ From SAIPAR Final Decision, Table 8.7.1, p151

Section 8 of the Code sets out the principles with which Reference Tariffs (other than those determined through a competitive tender process under section 3 of the Code) and the Reference Tariff Policy must comply in order to be approved. Overarching principles and factors to be observed in applying the Reference Tariff Principles in section 8 of the Code are set out in sections 8.1 and 8.2.

Section 8.1 states that a Reference Tariff and Reference Tariff Policy should be designed with a view to achieving the following objectives:

- 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 Service;
- replicating the outcome of a competitive market;
- ensuring the safe and reliable operation of the Pipeline;
- not distorting investment decisions in Pipeline transportation systems or in upstream and downstream industries;
- efficiency in the level and structure of the Reference Tariff; and
- providing an incentive to the Service Provider to reduce costs and to develop the market for Reference and other Services.

Section 8.2 provides that the Regulator must, in approving a Reference Tariff and Reference Tariff Policy, be satisfied that:

- the revenue to be generated from the sales (or forecast sales) of all Services over the Access Arrangement Period (the Total Revenue) should be established consistently with the principles and according to one of the methodologies contained in section 8 of the Code;
- to the extent that the Covered Pipeline is used to provide a number of Services, that portion of Total Revenue that a Reference Tariff is designed to recover (which may be based upon forecasts) is calculated consistently with the principles contained in section 8 of the Code;
- a Reference Tariff (which may be based upon forecasts) is designed so that the portion of Total Revenue to be recovered from a Reference Service is recovered from the Users of that Reference Service consistently with the principles contained in section 8 of the Code;
- Incentive Mechanisms are incorporated into the Reference Tariff Policy wherever the Regulator considers appropriate and such Incentive Mechanisms are consistent with the principles contained in section 8 of the Code; and
- any forecasts required in setting the Reference Tariff represent best estimates arrived at on a reasonable basis.

Other specific provisions in section 8 of the Code will, where relevant, be referred to throughout the remainder of this Access Arrangement Information in discussing the compliance of the Access Arrangement with the Code.

5.2 Derivation and Compliance

Tariffs for Haulage Reference Services and Ancillary Reference Services are set out in section 3 of the Access Arrangement and the Tariff Schedule which is Annexure C to the Access Arrangement.

Haulage Reference Tariffs have been derived from the revenue requirement for Haulage Reference Services as set out in section 4.2.6. The revenue requirement for each Haulage Reference Service was derived in the following manner:

Step 1

The total Haulage Reference Service Revenue was determined, in accordance with the Final Decision.

Step 2

The revenue required to be obtained from the provision of Demand Haulage Services was determined on a Region by Region basis, using a stand-alone network in each Region as the applicable asset base. The return to this segment of the market was determined by applying the WACC to the Optimised Replacement Cost of these stand-alone assets.

Tariffs were then designed to meet the revenue requirement in each Region. The Adelaide Region was separated into four Zones. In accordance with the Final Decision, tariffs in each Zone were adjusted to minimise the impact of tariff shock in the Southern Zone, with a five-year price path incorporated to achieve cost reflectivity in each Zone.

Step 3

The difference between the revenue in Steps 1 and 2 (ie the revenue required from all Haulage Services less the amount of revenue generated from Demand Haulage Services) was allocated between the Domestic and Commercial Haulage Services based on the forecast number of Delivery Points (as a measure of capacity) and Gas deliveries (as a measure of utilisation of the Network) for each Reference Service, ie 50% of the remaining revenue was divided between Domestic and Commercial Haulage Services in proportion to the number of Delivery Points, and the other 50% of remaining revenue was divided in proportion to Gas delivery.

Tariffs for the Domestic and Commercial Haulage Services have been set on a Network-wide basis.

The generation of Reference Tariffs for the Haulage Reference Services is discussed in more detail below.

5.2.1 Demand Haulage Services

5.2.1.1 Stand-Alone Network

A stand-alone network was used to determine the portion of the Capital Base attributable to Demand Haulage Services. This process involved:

- mapping the location of Demand Delivery Points in each Region;
- designing a series of notional networks based on the optimum pipeline route to most efficiently connect natural groupings ('clusters') of Demand Delivery Points;
- identifying pipeline material and operating pressure combinations capable of satisfying demand and minimum supply pressures within each cluster using network analysis software to determine the most economical design to satisfy Demand Delivery Point requirements; and
- sizing other assets such as inlets, meters and regulators for individual Delivery Points and adding them to the asset base for each cluster.

5.2.1.2 Non-Capital Costs, Depreciation and Return on Demand Assets

The revenue required to be generated from the provision of Demand Haulage Services was calculated as the sum of the Non-Capital Costs, depreciation and a return on assets in relation to the notional networks in each Region.

The Non-Capital Costs attributable to the stand-alone assets providing Demand Haulage Services in each Region represent a ‘best estimate’ of prudent operating, maintenance and management costs for the stand-alone assets. As per the Final Decision, only 20% of UAG costs has been attributed to these assets, because the leakage from the high pressure parts of the Network is negligible and there is a higher degree of metering accuracy at Demand Delivery Points relative to Domestic and Commercial Delivery Points.

Depreciation (on a straight-line basis) and a return on asset was then calculated for each Region.

The revenue requirement (generated through the approach described above) for the provision of Demand Haulage Services for each year of the Access Arrangement Period is set out in the following table.

(\$m)	01/02	02/03	03/04	04/05	05/06
Non-Capital Cost	6.66	6.74	6.90	7.07	7.24
Depreciation	1.51	1.55	1.58	1.62	1.66
ROA	2.82	2.97	3.04	3.11	3.19
UAG	0.57	0.58	0.59	0.60	0.61
Total Demand	11.56	11.83	12.11	12.40	12.69

Table 18: Composition of revenue – Demand Haulage Reference Service

The allocation of Demand Haulage Service revenue by Region for 2001/02 is set out in the following table.

Region	Revenue (\$m)
Adelaide	10.89
Port Pirie	0.31
Whyalla	0.06
Peterborough	0.04
Riverland	0.07
South East	0.18
Total	11.56

Table 19: Revenue Requirement for Demand Haulage Reference Service by Region 01/02

5.2.1.3 Tariff Design for Demand Delivery Points

The Reference Tariffs for Demand Haulage Services are established on a ‘\$/GJ of MDQ’ declining block basis. This approach supports the concept of efficient pricing signals by providing the incentive for Network Users to flatten load profiles, thereby promoting more cost-effective utilisation of the Network. Reference Tariffs for the Demand Haulage Service have also been designed to:

- achieve a smooth transition across the threshold between Reference Tariffs for provision of the Demand and Commercial Haulage Services respectively; and

- achieve simplicity in the Tariff design, using the minimum number of rate blocks, while maintaining sufficient resolution to manage bypass risk.

In order to promote an efficient use of the Network, daily and hourly overrun charges apply to Telemetered Delivery Points. The daily overrun charge applies where a Network User's MDQ is exceeded. In cases where the MDQ is exceeded on more than four days in a month or eight times in a year, the MDQ will be adjusted upwards to the highest MDQ on any of those days.

The hourly overrun charge applies when the Quantity of Gas delivered to a Telemetered Delivery Point in one hour exceeds more than one-twelfth of the MDQ. Again, where this Quantity of Gas is exceeded four times in a month or eight times in a year the MDQ will automatically be adjusted upwards.

The overrun charges are set out in the Tariff Schedule.

As provided for in clause 4 of the terms and conditions, where a Delivery Point is initially misclassified as a Demand Delivery Point, but is actually a Commercial Delivery Point, a misclassification charge will be applied.

5.2.1.4 Zonal Pricing within the Adelaide Region

Demand Delivery Points in the Adelaide Region have been divided into four Zones. A map showing boundaries of these Zones is included as Annexure D of the Access Arrangement.

This zonal approach is required due to the elongated nature of that part of the Network located in the Adelaide metropolitan area. Because the city is constrained on the west by the coast and to the east by the Mount Lofty Ranges, development has taken place along a north-south axis. The Moomba to Adelaide transmission pipeline, which is the only source of Gas to the Adelaide Region, terminates at the northern suburbs. Consequently the distance over which Gas is transported to Delivery Points varies considerably, with Delivery Points at the southern end of the Network situated up to 40 kilometres from the Receipt Points. As a result, applying a postage-stamp approach to pricing within the Region would not be cost-reflective or practical in the circumstances.

A zonal approach has therefore been selected as providing the best balance, with price increments between Zones determined on the basis of the average length of mains required to transport Gas from the Receipt Points.

As per the Final Decision, the cost-reflective tariffs for the Central and Southern Zone will be phased in over the Access Arrangement Period. The Regulator has required a transitional approach in order to minimise "price shock" to customers in the Southern and Central Zones. In order for revenue to remain unaffected, the transitional approach requires that the revenue shortfall be recovered from other customers. The Regulator has therefore determined that the target revenue requirement for each customer class (Demand, Commercial and Domestic customers) will be increased proportionately. This revenue will be recovered from the Volume market on the basis of consumption charges (a "per GJ" increase applied equally to each Reference Tariff step).

5.2.1.5 Price Path for Reference Tariffs for Demand Haulage Service

Reference Tariffs for Demand Haulage Services have been set to follow a price path (as provided for in section 8.3 of the Code) as set out in section 3.3.6 of the Access Arrangement.

5.2.2 Commercial and Domestic Haulage Services

The revenue to be generated from Commercial and Domestic Haulage Reference Services was calculated as the difference between the revenue required from all Haulage Reference Services

and the revenue to be generated from Demand Haulage Services. This amount was then allocated between Commercial and Domestic Haulage Services based 50% on the forecast number of Delivery Points and 50% on forecast Gas deliveries.

The revenue allocators were used because:

- they reflect the two key cost drivers in providing Haulage Reference Services; and
- there is a high level of shared (or common) costs involved in providing Commercial and Domestic Haulage Services.

The following table shows the resulting composition of the revenue requirement for Domestic and Commercial Haulage Services.

(\$m)	01/02	02/03	03/04	04/05	05/06
Commercial					
Non-Capital Cost	3.8	3.9	3.9	4.1	4.2
Depreciation	1.9	2.0	2.1	2.2	2.3
ROA	7.6	7.8	8.0	8.2	8.4
UAG	0.7	0.7	0.7	0.7	0.7
Total Commercial	14.0	14.4	14.7	15.2	15.6
Domestic					
Non-Capital Cost	22.1	22.7	22.7	23.7	24.6
Depreciation	10.9	11.6	12.2	12.8	13.3
ROA	43.5	45.1	46.5	47.7	48.9
UAG	3.40	3.51	3.57	3.63	3.72
Total Domestic	80.0	82.9	84.9	87.8	90.6

Table 20: Composition of revenue – Domestic and Commercial Haulage Reference Service

For reference, the following table summarises the composition of the revenue requirement for all Reference Services.

(\$m)	01/02	02/03	03/04	04/05	05/06
Non-Capital Cost	32.63	33.421	33.49	34.87	36.06
Depreciation	14.32	15.12	15.85	16.56	17.29
ROA	53.84	55.85	57.51	59.02	60.48
UAG	4.70	4.79	4.89	4.98	5.08
Total	105.49	109.18	111.73	115.44	118.91

Table 21: Composition of revenue requirement

The Tariff structure for the Commercial and Domestic Haulage Reference Services comprise a quarterly charge and declining blocks based on the Quantity of Gas delivered. Taking into account the factors in section 8 of the Code, Envestra has established Reference Tariffs for Commercial and Domestic Haulage Services on a Network-wide basis.

5.2.2.1 Price Path for Tariffs for Commercial and Domestic Haulage Reference Services

Reference Tariffs for Commercial and Domestic Haulage Services have also been set according to a ‘price path’ approach as contemplated by section 8.3 of the Code. The price path has been developed in order to smooth revenue over the Access Arrangement Period.

5.2.3 Reference Tariffs for Ancillary Reference Services

The Reference Tariffs for the Ancillary Reference Services reflect the Non-Capital Costs involved in providing the Services. Due to the nature of the Services there are no capital costs associated with the provision of Ancillary Reference Services.

The Reference Tariffs that will apply to the provision of the Ancillary Reference Services in 2001/02 are set out in the Tariff Schedule, which is Annexure C to the Access Arrangement.

5.2.4 Tariffs for Negotiated Services

There are a number of sites to which Envestra supplies Services that are not Reference Services. This is because the nature of the Service is different, with most being ‘farm taps’ off a pipeline not owned by Envestra. These Negotiated Services also include the provision of an interruptible haulage service. The Regulator has determined in the Final Decision that these respective Delivery Points are to be included in the Access Arrangement.

Tariffs for Negotiated Services have been calculated on an individual basis, taking into account the capital, depreciation and non-capital costs associated with the provision of the respective service.

6. REFERENCE TARIFF POLICY

6.1 Code Requirements

Section 3.7 of the Code states that an Access Arrangement must include a Reference Tariff Policy.

This Policy is designed to address all of the principles that govern any movement in Reference Tariffs during an Access Arrangement Period. These principles may also influence Reference Tariffs for subsequent Access Arrangement Periods.

Section 3.7 of the Code states that the Reference Tariff Policy must, in the Regulator’s opinion, comply with the Reference Tariff Principles set out in section 8 of the Code.

Section 8 of the Code identifies some possible elements of a Reference Tariff Policy. They include:

- a mechanism for treating redundant capital (sections 8.27 – 8.29 of the Code);
- Fixed Principles (sections 8.47 and 8.48 of the Code); and
- Incentive Mechanisms.

6.2 Compliance and Derivation

Section 3.3 of the Access Arrangement sets out the Reference Tariff Policy in accordance with the requirements of the Final Decision.

7. TERMS AND CONDITIONS

7.1 Code Requirements

Section 3.6 of the Code states that an Access Arrangement must include the terms and conditions on which the Service Provider will supply each Reference Service. It also provides that the terms and conditions included must, in the Regulator's opinion, be reasonable.

7.2 Compliance and Derivation

The terms and conditions applicable to the provision of Reference Services are dealt with in section 4 and Annexure E of the Access Arrangement. In summary:

- pursuant to section 4 of the Access Arrangement, it is a condition that a Prospective Network User enter into an Agreement with Envestra for the provision of any Network Service. The term 'Agreement' is defined in the Access Arrangement and means the entering into of a binding contractual arrangement between Envestra and a Network User. Prior to entering into an Agreement, a Prospective Network User must satisfy Envestra that it:
 - has the necessary financial capacity to meet its obligations to Envestra; and
 - has adequate arrangements in place to ensure it can keep Gas deliveries into and out of the Network in balance.
- Annexure E sets out the terms and conditions which are to apply, as a minimum, to the provision of each Reference Service. Annexure E describes terms and conditions which are applicable to both Haulage and Ancillary Reference Services (Part IV of the terms and conditions), as well as those terms and conditions which apply specifically to each type of Reference Service (Part II – Haulage Reference Services; and Part III – Ancillary Reference Services); and
- the terms and conditions provide for Specific Terms and Conditions to be agreed between the Network User and Envestra in relation to the provision of a Reference Service. These Specific Terms and Conditions may be additional to, or may provide for the alteration of the terms and conditions set out in Annexure E. This is intended to provide flexibility for Network Users, Prospective Network Users and Envestra to design contractual arrangements that reflect the particular circumstances applying to the provision of a Reference Service at any point in time.

An Agreement for a Haulage Reference Service to a Demand Delivery Point must be for a minimum Term of one Year.

The terms and conditions are structured so that:

- clauses 2 to 16 (Part II) apply only to the Haulage Reference Services. These clauses address matters including:
 - procedures for classifying Delivery Points;
 - over-run charges;
 - meter accuracy and reading;
 - minimum Gas quality and delivery pressures;
 - possession of Gas and responsibility;
 - warranties and title to Gas; and
 - supply curtailment;
- clauses 17 and 18 (Part III) apply only to the Ancillary Reference Services. These clauses describe the extent of the Services to be provided and the procedures to be followed when requesting a Service;

- clauses 19 to 37 (Part IV) apply both to Haulage Reference Services and Ancillary Reference Services. These clauses address matters including:
 - invoices and payment arrangements;
 - procedures for determining delivered quantities;
 - termination;
 - liability and indemnities;
 - relationship to the *Trade Practices Act 1974*;
 - Force Majeure;
 - assistance;
 - access to premises;
 - confidentiality;
 - notices;
 - assignment by the Network User;
 - amendment of the Agreement; and
 - other miscellaneous provisions.

The obligations, duties and responsibilities of Envestra and any Network User described in Annexure E are in addition to those established in law or by any relevant regulatory documents.

Where the terms and conditions described in Annexure E are amended, the default position is that the terms and conditions applying to an existing Agreement will also change accordingly.

However, a Network User and Envestra may agree that all or some of the terms and conditions applicable to their Agreement will not change during the Term of an Agreement, regardless of any amendments to Annexure E. Both parties are therefore free to agree to arrangements that reflect their preferred risk profile at a point in time.

The terms and conditions applying to provision of the Haulage Reference Services and the Ancillary Reference Services are consistent with good industry practice and are ‘reasonable’ in that they:

- are sufficiently well defined, so that the likelihood of a dispute over the terms and conditions of access is minimised; and
- are designed to protect the legitimate business interests of Envestra, as well as Network Users and Prospective Network Users.

8. CAPACITY MANAGEMENT POLICY

8.1 Code Requirements

Section 3.7 of the Code requires that the Access Arrangement must include a statement of whether system capacity is managed on a Contract Carriage or a Market Carriage basis.

8.2 Compliance and Derivation

Section 5 of the Access Arrangement provides that the Network is to be a Contract Carriage Pipeline.

While the difference between Contract Carriage and Market Carriage is not always distinct, the attributes usually associated with Contract Carriage (based on the definition contained in section 10 of the Code) are:

- Users enter into a legally enforceable contract that entitles them to a specified quantity of Pipeline capacity;
- capacity is managed by requiring that Users not exceed this capacity;
- prices are set primarily on the basis of Contracted Capacity; and
- Users have the right to trade Contracted Capacity with others.

In contrast, under the Market Carriage approach (as defined in section 10 of the Code) Users usually have no contractual rights to capacity and prices are based on actual deliveries.

Envestra has classified the Network as a Contract Carriage Pipeline. In accordance with the terms and conditions set out in Annexure E of the Access Arrangement, which apply to the provision of each Haulage Reference Service, Network Users' estimated system deliveries in respect of Demand Delivery Points (which account for 70% of annual demand) will be determined on an MDQ basis. Envestra will ensure sufficient capacity is available to meet MDQ requirements (subject, among other things, to technical and practical limitations).

Network Users have the right to trade their Contracted Capacity in accordance with the Trading Policy set out in section 6 of the Access Arrangement. The Trading Policy is further discussed in section 9 of this Access Arrangement Information.

9. TRADING POLICY

9.1 Code Requirements

Section 3.9 of the Code states that the Access Arrangement for a Contract Carriage Pipeline must include a policy that explains the rights of a User to trade its right to obtain a Service to another person. The Code refers to this policy as a Trading Policy.

Section 3.10 of the Code states that the Trading Policy must comply with the following principles:

- A User must be permitted to transfer or assign all or part of its Contracted Capacity without the consent of the Service Provider concerned if:
 - the User's obligations under the contract with the Service Provider remain in full force and effect after the transfer or assignment; and
 - the terms of the contract with the Service Provider are not altered as a result of the transfer or assignment (section 3.10(a) of the Code).

A transfer or assignment of this type is described as a Bare Transfer. Section 3.10 provides that the Trading Policy may require that the transferee notify the Service Provider prior to utilising the portion of the Contracted Capacity subject to the Bare Transfer and of the nature of the Contracted Capacity subject to the Bare Transfer, but the Trading Policy must not require any other details regarding the transaction to be provided to the Service Provider.

- Where commercially and technically reasonable, a User must be permitted to transfer or assign all or part of its Contracted Capacity, other than by way of a Bare Transfer, with the prior written consent of the Service Provider. The Service Provider may withhold its consent only on reasonable commercial or technical grounds and may make its consent subject to conditions, but only if they are reasonable on commercial and technical grounds. The Trading Policy may specify conditions in advance under which consent will or will not be given, and conditions that must be adhered to as a condition of consent being given (section 3.10(b) of the Code).

- Where commercially and technically reasonable, a User must be permitted to change the Delivery Point or Receipt Point from that specified in any contract for the relevant Service with the prior written consent of the Service Provider. The Service Provider may withhold its consent only on reasonable commercial or technical grounds and may make its consent subject to conditions, but only if they are reasonable on commercial and technical grounds. The Trading Policy may specify conditions in advance under which consent will or will not be given and conditions that must be adhered to as a condition of consent being given (section 3.10(c) of the Code).

9.2 Compliance and Derivation

Section 5 of the Access Arrangement provides that the Network is a Contract Carriage Pipeline. Under this approach to the management of capacity, Network Users have legally enforceable rights to certain amounts of Contracted Capacity in the Network.

Network Users have the right to trade their Contracted Capacity in relation to the Network, in accordance with the Trading Policy set out in section 6 of the Access Arrangement.

9.2.1 Bare Transfers

Section 6.1 of the Access Arrangement deals with Bare Transfers. In practice, it provides for a Network User to transfer or assign all or part of its Contracted Capacity without the consent of Envestra if:

- the Network User's obligations under the contract with Envestra remain in full force and effect after the transfer; and
- the terms of the contract with the Envestra are not altered as a result of the transfer or assignment.

A Bare Transfer will therefore only be possible where the trade involves the use of the same Delivery Points and Receipt Points. Network User's rights so far as changes to Delivery and/or Receipt Points are concerned are set out in section 6.3 of the Access Arrangement and are discussed in section 9.2.3 below.

Section 6.1 of the Access Arrangement also states that the transferee of the Contracted Capacity subject to a Bare Transfer must provide notice to Envestra (prior to utilising that Contracted Capacity) of:

- the Contracted Capacity that is the subject of any Bare Transfer; and
- the nature of such Contracted Capacity.

This is consistent with section 3.10 of the Code.

9.2.2 Other Transfers

Section 6.2 of the Access Arrangement deals with transfers or assignments other than by way of a Bare Transfer. Pursuant to section 6.2, a Network User is permitted to transfer or assign all or part of its Contracted Capacity (other than by way of a Bare Transfer) with the prior written consent of Envestra where the transfer or assignment is commercially and technically reasonable.

Section 6.2 of the Access Arrangement also provides that Envestra will not withhold its consent, other than on reasonable commercial and technical grounds. In addition, section 6.2 provides that Envestra may make its consent subject to conditions, but only if those conditions are reasonable on commercial and technical grounds.

This is consistent with section 3.10 of the Code.

9.2.3 *Delivery and Receipt Point Changes*

Section 6.3 of the Access Arrangement deals with changes in Delivery Points and Receipt Points. It provides that a Network User is permitted to change the Delivery Point and/or Receipt Point from that specified in a contract for a Network Service with the prior written consent of Envestra, where the change is commercially and technically reasonable.

Section 6.3 of the Access Arrangement also states that Envestra will not withhold its consent, other than on reasonable commercial and technical grounds, and that Envestra may make its consent subject to conditions, but only if those conditions are reasonable on commercial and technical grounds.

This is consistent with section 3.10 of the Code.

9.2.4 *Procedure*

- Section 6.4 of the Access Arrangement specifies a procedure that needs to be followed in order to obtain Envestra's consent for a transfer/assignment of contracted Capacity (other than a Bare Transfer) or change of Delivery and/or Receipt Point.

10. QUEUING POLICY

10.1 Code Requirements

Section 3.12 of the Code states that an Access Arrangement must include a policy for determining the priority that a Prospective User has, as against any other Prospective User, to obtain access to Spare Capacity and Developable Capacity (and to seek dispute resolution under section 6 of the Code), where the provision of the Service sought by that Prospective User may impede the ability of the Service Provider to provide a Service that is sought by, or which may be sought by, another Prospective User. The Code refers to this policy as a Queuing Policy.

Section 3.13 of the Code states that the Queuing Policy must set out sufficient detail to enable Users and Prospective Users to understand in advance how the Queuing Policy will operate. Section 3.13 also states that the Queuing Policy must accommodate, to the extent reasonably possible, the legitimate business interests of the Service Provider, Users and Prospective Users and generate, to the extent reasonably possible, economically efficient outcomes.

10.2 Compliance and Derivation

Section 7 of the Access Arrangement sets out the Queuing Policy for the Network.

Queuing is more relevant to transmission pipelines than distribution networks. In relation to transmission pipelines, all Users essentially use the same pipeline and the development of incremental capacity typically requires significant investment that cannot be supported by a single User. It is therefore appropriate to consider Users' requests for extra capacity in aggregate and develop a queuing policy to determine the priority for allocating the additional capacity.

In distribution networks, Spare Capacity is location-dependent and may vary daily or seasonally, depending on the demand profile of different Customers and the resultant flow paths. Additional capacity can usually be provided in small increments to specific locations and at relatively low cost. As a result, queuing within a distribution network is much less of an issue than with transmission pipelines.

Notwithstanding the above, the potential for capacity constraints within any particular part of the Network to impact on multiple Prospective Network Users is recognised and a Queuing Policy has been developed accordingly.

The Access Arrangement provides for Prospective Network Users' requests to be considered in the order in which they are received. This principle will be observed in all circumstances, unless there is a need to investigate Developable Capacity options.

In the event that Envestra undertakes investigation into Developable Capacity alternatives, all requests from Prospective Users affected by planned augmentation will be considered in aggregate, to facilitate optimum design and achieve an economically efficient outcome. Under such circumstances, it may be necessary to elevate the status of all requests affected to the top of the queue, without altering the relative ranking of other requests not affected by the augmentation. This approach will result in lower charges to Network Users over time, thereby satisfying the requirement for economically efficient outcomes in section 3.13 of the Code.

In order to meet the legitimate business interests of Prospective Network Users, the policy also provides that where a request cannot be fully met, but can be partially satisfied, Envestra will offer any Spare Capacity available to the Prospective Network User to partially satisfy its request. The Prospective Network User's position in the queue will remain unaltered as a result.

11. EXTENSIONS AND EXPANSIONS POLICY

11.1 Code Requirements

Section 3.16 of the Code states that an Access Arrangement must include a policy (Extensions and Expansions Policy) that sets out:

- the method to be applied to determine whether any 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;
- how any extension or expansion which is to be treated as part of the Covered Pipeline will affect Reference Tariffs; and
- if the Service Provider agrees to fund New Facilities if certain conditions are met, a description of those New Facilities and the conditions on which the Service Provider will fund the New Facilities.

11.2 Compliance and Derivation

Section 8 of the Access Arrangement sets out the Extensions and Expansions Policy for the Network. It identifies the circumstances under which any extensions to or expansions of the Network will be treated as part of the Network (ie as the one Covered Pipeline under the Code) and the tariff arrangements to apply to any extension or expansion.

In the Access Arrangement, references to extensions or expansions are references to extensions or expansions to the Network as it existed at the commencement of the first Access Arrangement Period.

The Extensions and Expansions Policy provides that all extensions and expansions will be automatically treated as part of the Network from the time the expansion or extension comes into service, unless it is a significant extension (as defined in the section 8.1 of the Access Arrangement).

In the case of a significant extension, Envestra will have the option of either treating the extension as:

- part of the Network for the purposes of being a Covered Pipeline under the Code; or
- a stand-alone Pipeline, in which case Envestra will obtain the Regulator's written approval to exclude the extension prior to the extension entering into service. In this case, Envestra will also have the option of including the stand-alone Pipeline as part of the Network for the purposes of being a Covered Pipeline at any subsequent review of the Access Arrangement for the Network.

The definition of a significant extension is restricted to extensions that are material in nature, so that where possible, extensions serving smaller Customers are automatically covered and are subject to the Prevailing Tariffs (ie where the extension passes the economic feasibility test) in section 8 of the Code.

In respect of extensions and expansions that are included as part of the Network, sections 8.1 and 8.2 of the Access Arrangement provide that, Tariff arrangements will be determined as follows:

- the Prevailing Tariffs will be charged for Haulage Reference Services where the extension or expansion meets the economic feasibility test in section 8.16 of the Code;
- where the extension or expansion does not pass the economic feasibility test, but has system-wide benefits that justify a higher Haulage Reference Tariff for all Network Users, Envestra will seek the Regulator's approval of a higher Reference Tariff for all Network Users; and
- where an extension or expansion does not pass the economic feasibility test or have system-wide benefits that justify a higher Reference Tariff for all Network Users, but is necessary to maintain the safety, integrity or Contracted Capacity of Network Services, Envestra may seek revisions to the Access Arrangement, in accordance with the procedures specified in section 2 of the Code, to provide for new Tariff arrangements;
- Where only part of any new Facilities Investment satisfies these requirements Tariff Arrangements will be determined by following the principles contained in sections 3.3.1 and 8.2 of the Access Arrangement.

The approach to Coverage and Tariff arrangements for any extension or expansion of the Network (section 8.2 of the Access Arrangement) is appropriate, as it:

- minimises the number of Access Arrangements that will apply to the Network, thereby making it easier for Network Users and Prospective Network Users to understand the terms and conditions of access;
- avoids delays to access, that may occur as a result of having to go through the Coverage process in the Code for extensions and expansions of the Network; and
- enables significant extensions to be addressed on a flexible, case-by-case basis.

12. REVIEW OF ACCESS ARRANGEMENT

12.1 Code Requirements

Section 3.17 of the Code states that an Access Arrangement must include a date upon which the Service Provider must submit revisions to the Access Arrangement and a date upon which the next revisions to the Access Arrangement are intended to commence.

12.2 Compliance and Derivation

Section 9.1 of the Access Arrangement stipulates the revisions date and the date on which their approval takes effect under the Code.

13. SYSTEM CAPACITY AND FORECAST DEMAND

13.1 System Capacity

The Network has been constructed over a period of more than 100 years and consequently consists of a variety of pipe materials. Up until the 1970s, cast iron was predominantly used for gas mains, with unprotected steel also being used for a period of time. Subsequent to this, polyethylene has been used as the predominant pipe material, with polyethylene pipes up to 100mm diameter being commonly used. With recent advances in polyethylene, it is now also being used in sizes above 100mm diameter and in higher pressure applications.

The type of pipe material dictates the maximum operating pressure of the constituent parts of the Network. Since cast iron can only be operated at relatively low pressures compared to polyethylene, the continual replacement of cast iron pipe with polyethylene pipe means that the capacity of the Network is improving with time in many areas. However, the increase in capacity in those areas which are upgraded is also dependent upon the capacity of pipework upstream (in the main trunk system).

System capacity and operating conditions are monitored via a telemetry system, which records pressures at various locations in the Network and relays information back to a control centre. This information is used in an annual review of the capacity of the Adelaide trunk system. This review is an important tool in identifying system improvements and facilitating long term planning.

The table below describes the composition of the Network by Region with respect to length of mains. As indicated below, the assets used to service metropolitan Adelaide constitute the major part of the Network.

Region	Kilometres	%
Adelaide	6,517	94.5
South East	168	2.4
Whyalla	84	1.2
Port Pirie	119	1.7
Riverland	6	0.09
Peterborough	4	0.06
Total	6,897	100

Table 22: Summary of Network Composition by Region as at 30 June 2001

The Network is characterised by four pressure tiers - low, medium, high and transmission. It should be noted that the term 'transmission' in this context refers to distribution mains operating in the pressure range of 1,050 kPa to 1,750 kPa.

The following table sets out the Network by pressure tier.

Size (mm)	Length (km)				Total
	Low Pressure	Medium Pressure	High Pressure	Transmission Pressure	
10	-	1	-	-	2
18	1	7	11	-	19
20	1	3	2	-	6
25	8	27	14	-	48
32	29	43	88	-	161
40	50	465	970	-	1,485
50	306	627	733	-	1,667
65	-	2	2	-	4
80	420	177	165	4	767
90	12	11	4	-	27
100	1,477	186	152	7	2,166
110	4	8	6	-	18
125	-	1	3	7	10
150	136	97	130	20	383
160	-	2	11	11	24
200	137	6	22	30	224
225	23	1	-	-	24
250	16	10	-	26	62
300	3	27	4	80	114
350	6	-	-	-	6
380	-	3	-	-	3
400	-	-	3	2	5
450	7	1	-	3	11
500	-	3	-	-	3
600	2	-	-	-	2
Total	2,641	1,748	2,326	181	6,897

Table 23: Summary of Network Composition by Pressure Tier (km) at 30 June 2001

An overview of the Network in metropolitan Adelaide is provided as Annexure A to the Access Arrangement. Other maps have been provided to the Regulator.

It is not possible to determine a maximum delivery capability of a distribution system, as this would vary at different points within the system.

13.2 Gate Station and System Load Profiles

The following table shows load profiles by gate station and Region. The figure for each month is the ratio of that month's load to the year's minimum monthly load for that gate station or Region.

Month	Gepps Cross Gate Station (Adelaide Region)	Elizabeth Gate Station (Adelaide Region)	Taperoo Gate Station (Adelaide Region)	Nurioopta Gate Station (Adelaide Region)	Angaston Gate Station (Adelaide Region)	Total Adelaide Region	Whyalla Gate Station (Whyalla Region)	Port Pirie Gate Station (Port Pirie Region)	Peterborough Gate Station (Peterborough Region)	Riverland Gate Station (Riverland Region)	Mt Gambier Gate Station (South East Region)
July	1.6	2.2	1.5	1.5	2.8	1.3	2.0	1.5	2.0	1.0	2.6
August	1.5	2.1	1.6	1.5	2.6	1.4	2.2	1.6	3.1	1.3	2.4
September	1.2	1.6	1.4	1.2	1.8	1.2	3.6	1.4	2.6	1.3	1.9
October	1.2	1.3	1.4	1.2	1.5	1.2	1.5	1.2	2.4	1.3	1.6
November	1.1	1.4	1.0	1.1	1.4	1.2	1.5	1.3	2.4	1.6	1.5
December	1.1	1.1	1.5	1.1	1.2	1.1	1.0	1.0	1.5	1.4	1.0
January	1.1	1.0	1.1	1.0	1.1	1.1	1.1	1.0	1.0	1.6	1.0
February	1.0	1.0	1.5	1.0	1.0	1.0	6.3	1.2	1.4	2.2	1.1
March	1.1	1.2	1.3	1.1	1.2	1.1	9.8	1.3	1.8	2.8	1.2
April	1.1	1.2	1.4	1.1	1.3	1.2	10.2	1.1	1.4	2.0	1.4
May	1.5	2.0	1.7	1.5	2.2	1.3	6.0	1.3	1.4	2.2	2.2
June	1.7	2.2	1.4	1.6	3.0	1.3	3.2	1.4	2.4	2.3	2.4
Max Supply Pressure (kPa)	2000	2000	2000	400	2500	-	2000	2000	300	2500	400
01/02 Peak Day (GJ)	90,180	23,725	16,460	1,305	235	130,365	530	3,990	72	5,225	2,110

Table 24: Load Ratio Profiles and Flow Data by Gate Station and Region

13.3 Forecasts of Demand

- The proposed demand forecast for the Network was based on information contained in a report titled ‘Demand Forecast for Envestra’s South Australian Gas Network’, which was supplied to the Regulator, and since updated. The proposed forecast has been amended in accordance with the Final Decision.

Forecasts of Gas deliveries and number of Delivery Points for the Access Arrangement Period are set out in the following tables.

Demand (TJ)	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Demand Market								
<i>Northern Zone</i>	5,734	5,643	5,700	5,757	5,814	5,873	5,932	5,932
<i>Central Zone</i>	2,387	2,290	2,340	2,340	2,340	2,340	2,340	2,340
<i>Southern Zone</i>	3,464	3,407	3,410	3,444	3,478	3,513	3,548	3,548
<i>North Western Zone</i>	4,063	4,457	4,495	4,495	4,495	4,496	4,496	4,496
Adelaide	15,648	15,796	15,945	16,036	16,127	16,222	16,316	16,316
Other	1,190	1,168	1,185	1,187	1,189	1,191	1,193	1,193
Total Demand Market	16,838	16,965	17,129	17,223	17,316	17,413	17,509	17,509
Commercial Market	2,939	2,999	3,030	3,056	3,082	3,108	3,135	3,161
Domestic Market	7,702	7,492	7,926	8,169	8,268	8,368	8,463	8,557
Total Network	27,479	27,455	28,085	28,448	28,666	28,889	29,107	29,227

Table 25: Gas Demand by Service and Region (actuals to 2000/01)

No. Delivery Points	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Demand Market								
<i>Northern Zone</i>	67	63	64	67	64	64	64	64
<i>Central Zone</i>	48	42	44	48	44	44	44	44
<i>Southern Zone</i>	23	22	22	25	22	22	22	22
<i>North Western Zone</i>	2	2	2	3	2	2	2	2
Adelaide	140	129	132	143	132	132	132	132
Other	10	9	10	11	10	10	10	10
Total Demand Market	150	138	142	154	142	142	142	142
Commercial Market	8,741	8,844	8,860	8,894	8,221	8,347	8,472	8,597
Domestic Market	320,037	324,951	329,455	333,888	339,881	345,093	350,306	355,519
Total Network	328,928	333,933	338,457	342,936	348,244	353,582	358,920	364,258

Table 26: Number of Delivery Points by Service and Region (actuals to 2001/02)

SA Access Arrangement

ANNEXURE C

TARIFF SCHEDULE

(1 July 2002 to 30 June 2003)

**Table 1:
2002/03 Demand Haulage Reference Service - Adelaide Region**

MDQ at Delivery Point	Monthly Charge (exc GST)			
	North Western Zone	Northern Zone	Central Zone	Southern Zone
50GJ or less	\$1,815	\$1,815	\$1,815	\$1,815
Next 50GJ \$/GJ of MDQ for MDQ over 50GJ	\$23.45	\$24.25	\$27.80	\$31.90
Next 900GJ \$/GJ of MDQ for MDQ over 100GJ	\$4.77	\$16.25	\$18.65	\$21.10
Additional GJ \$/GJ of MDQ for MDQ over 1,000GJ	\$0.896	\$5.17	\$5.75	\$6.25

Notes

1. *The Charge for a calendar month accrues from day to day in equal portions.*
2. *Charges will be calculated to the nearest cent, with one-half of a cent rounded upwards.*
3. *For the purposes of calculating overrun charges in accordance with clauses 6 and 7 of the terms and conditions set out as Annexure E, the Overrun Rate is \$10 per GJ (exc GST).*

**Table 2:
2002/03 Demand Haulage Reference Service - Other Regions**

MDQ at Delivery Point	Monthly Charge (exc GST)				
	Port Pirie Region	Riverland Region	South East Region	Peterborough Region	Whyalla Region
50GJ or less	\$1,815	\$2,560	\$1,815	\$2,560	\$1,815
Next 50GJ \$/GJ of MDQ for MDQ over 50GJ	\$24.27	\$36.60	\$24.35	\$36.60	\$24.35
Next 400GJ \$/GJ of MDQ for MDQ over 100GJ	\$13.05	\$23.80	\$13.05	\$23.80	\$13.05
Next 500GJ \$/GJ of MDQ for MDQ over 500GJ	\$4.75	\$23.80	\$13.05	\$23.80	\$13.05
Greater than 1,000GJ \$/GJ of MDQ for MDQ over 1,000GJ	\$4.75	\$5.17	\$5.17	\$5.17	\$5.17

Notes

1. *The Charge for a calendar month accrues from day to day in equal portions.*
2. *Charges will be calculated to the nearest cent, with one-half of a cent rounded upwards.*
3. *For the purposes of calculating overrun charges in accordance with clauses 6 and 7 of the terms and conditions set out as Annexure E, the Overrun Rate is \$10 per GJ (exc GST).*

**Table 3:
2002/03 Domestic Haulage Reference Service**

Daily Charges (exc GST)	
Base Charge	\$0.205
Charge for the first 0.0493 GJ of Gas delivered (\$ per GJ)	\$9.110
Charge for additional Gas delivered (\$ per GJ)	\$4.320

Notes

1. *The total daily Charge will comprise the base Charge plus a Charge for the Quantity of Gas delivered (or estimated to have been delivered) that day to or for the account of the Network User.*
2. *The Charge for the Quantity of Gas delivered (or estimated to have been delivered) to or for the account of the Network User will be calculated at the rates shown in the table.*
3. *A reference in the table to the Gas delivered is a reference to Gas delivered whether to or for the account of the Network User or any other person or persons.*
4. *Charges will be calculated to the nearest cent, with one-half of a cent rounded upwards.*

**Table 4:
2002/03 Commercial Haulage Reference Service**

Daily Charges (exc GST)	
Base Charge	\$0.360
Charge for the first 0.9863 GJ of Gas delivered (\$ per GJ)	\$6.671
Charge for the next 4.2740 GJ of Gas delivered (\$ per GJ)	\$3.850
Charge for the next 11.1780 GJ of Gas delivered (\$ per GJ)	\$1.680
Charge for additional Gas delivered (\$ per GJ)	\$0.714

Notes

1. *The total daily Charge will comprise the base Charge plus a Charge for the Quantity of Gas delivered (or estimated to have been delivered) that day to or for the account of the Network User.*
2. *The Charge for the Quantity of Gas delivered (or estimated to have been delivered) to or for the account of the Network User will be calculated at the rates shown in the table.*
3. *A reference in the table to the Gas delivered is a reference to Gas delivered whether to or for the account of the Network User or any other person or persons.*
4. *Charges will be calculated to the nearest cent, with one-half of a cent rounded upwards.*

**Table 5:
2002/03 Ancillary Reference Services**

Reference Service	Charge per Service (exc GST)
Inlet Disconnection Service	\$213
Inlet Reconnection Service	\$231
Special Meter Reading Service	\$7.20

Note: Inlet Disconnection and Reconnection tariffs shall be rounded to the nearest dollar. Special Meter Reading tariff shall be rounded to the nearest ten cents.

SA Access Arrangement

Annexure E

Terms & Conditions applicable to the provision of Reference Services

8 April 2003

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TERMS AND CONDITIONS

These are the terms and conditions applicable to the provision of Reference Services by the Service Provider, Envestra Limited ('Envestra') for the Network.

PART I: INTRODUCTION

1. THE AGREEMENT

1.1. Contents of Agreement

The Agreement between Envestra and the Network User comprises these terms and conditions and the Specific Terms and Conditions.

1.2. Inconsistency

If these terms and conditions and the Specific Terms and Conditions are inconsistent in any respect, the Specific Terms and Conditions will prevail to the extent of the inconsistency.

To the extent that an inconsistency exists between these terms and conditions or the Specific Terms and Conditions and any conditions under the Distribution Licence, the latter will prevail to the extent of that inconsistency. To the extent that an inconsistency exists between the Code and any conditions under the Distribution Licence, the Code will prevail to the extent of the inconsistency.

1.3. Interpretation

Definitions given to terms in the Access Arrangement (to which these terms and conditions are annexed) apply to those terms in the Agreement except where the contrary intention appears.

PART II: HAULAGE REFERENCE SERVICES

2. HAULAGE REFERENCE SERVICES

2.1. Haulage Reference Services

During the Term, in consideration of the Charges payable by the Network User under the Agreement, Envestra will:

- (a) receive Gas from or for the account of the Network User at each User Receipt Point; and
- (b) deliver Gas to or for the account of the Network User through each User Delivery Point,

in accordance with, and subject to, the terms of the Agreement.

2.2. Delivery Quantities

The Network User irrevocably authorises Envestra during the Term to deliver through each Delivery Point whatever Quantity of Gas is taken through that Delivery Point (whether the taking of that Gas is or is not specifically authorised by the Network User or any Network User's Customer).

2.3. Odourisation

During the Term, Envestra will ensure that all Gas in the Network is odourised in accordance with applicable laws or, if no laws are applicable, in accordance with industry practices generally adopted within Australia.

2.4. Service Standards

Envestra will ensure that the Network is operated and managed during the Term in accordance with the Access Arrangement (to which these terms and conditions are annexed) and in accordance with any Distribution Licence.

3. CHARGES

3.1. Payment of Charges

In each calendar month (commencing with the second calendar month during the Term), the Network User will pay Envestra the Charges payable for each User Delivery Point in respect of the previous calendar month.

3.2. Demand Haulage Service

If a User Delivery Point was a Demand Delivery Point at any time during a given calendar month, the Charges payable for that Delivery Point in respect of that calendar month (or the part of that calendar month during which that Delivery Point was a Demand Delivery Point) will be calculated in accordance with Table 1 or Table 2 of the Tariff Schedule whichever is applicable given the location of that Delivery Point.

3.3. Domestic Haulage Service

If a User Delivery Point was a Domestic Delivery Point at any time during a given calendar month, the Charges payable for that Delivery Point in respect of that calendar month (or the part of that calendar month during which that Delivery Point was a Domestic Delivery Point) will be calculated in accordance with Table 3 of the Tariff Schedule.

3.4. Commercial Haulage Service

If a User Delivery Point was a Commercial Delivery Point at any time during a given calendar month, the Charges payable for that Delivery Point in respect of that calendar month (or the part of that calendar month during which that Delivery Point was a Commercial Delivery Point) will be calculated in accordance with Table 4 of the Tariff Schedule.

4. MISCLASSIFICATION CHARGE

4.1. Application

Clauses 4.2, 4.3, 4.4 and 4.5 apply to a Delivery Point (other than a Domestic Delivery Point) which it is not possible to classify as a Demand Delivery Point or a Commercial Delivery Point because there is no adequate history of the Gas delivered through that Delivery Point.

4.2. Commercial Delivery Point

Subject to clauses 4.3, 4.4, 4.5 and 4.7, the Charges for a Delivery Point to which this section 4 applies will be calculated on the basis that the Delivery Point is a Commercial Delivery Point.

4.3. Network User Nomination

If the Network User has reasonable grounds to expect that the Delivery Point will be a Demand Delivery Point and, before any Gas is delivered through that Delivery Point to or for the account of the Network User, the Network User notifies Envestra that it requires the Charges to be calculated on the basis that the Delivery Point is a Demand Delivery Point and notifies Envestra of the MDQ and MHQ for that Delivery Point then, the Charges for that Delivery Point will be calculated on that basis.

4.4. Reclassification due to Consumption

If the Charges for a Delivery Point have been or are being calculated pursuant to clause 4.2 (on the basis that the Delivery Point was or is a Commercial Delivery Point) but the Quantity of Gas delivered through that Delivery Point during the first Metering Year is equal to or greater than 10TJ then, the Charges for that Delivery Point will be calculated on the basis that:

- (a) the Delivery Point is a Demand Delivery Point during the period after the Cycle in which the Quantity of Gas delivered through that Delivery Point equals 10TJ;
- (b) (subject to the Agreement) the MDQ for that Delivery Point is equal to the highest Quantity of Gas that has been delivered (or is deemed to have been delivered) through that Delivery Point to, or for the account of, the Network User on any Network Day; and
- (c) (subject to the Agreement) the MHQ for that Delivery Point is equal to one twelfth of the MDQ for that Delivery Point (as determined under paragraph (b)).

4.5. Reclassification due to MDQ

If the Charges for a Delivery Point have been or are being calculated pursuant to clause 4.2 (on the basis that the Delivery Point was or is a Commercial Delivery Point) but the Quantity of Gas delivered through that Delivery Point on any Network Day during a Cycle ('the relevant Cycle') was equal to or greater than 50GJ, then the Charges for that Delivery Point will be calculated on the basis that:

- (a) the Delivery Point is a Demand Delivery Point commencing at the end of the relevant Cycle;
- (b) (subject to the Agreement) the MDQ for that Delivery Point is equal to the highest Quantity of Gas that has been delivered (or is deemed to have been delivered) through that Delivery Point to, or for the account of, the Network User on any Network Day; and
- (c) (subject to the Agreement) the MHQ for that Delivery Point is equal to one twelfth of the MDQ for that Delivery Point (as determined under paragraph (b)).

4.6. Averaging

For the purposes of the previous clause, if the measurements taken by the Metering Equipment at a Delivery Point do not separately record the Quantity of Gas delivered through that Delivery Point on each particular Network Day during a Cycle, then the maximum Quantity of Gas delivered through that Delivery Point on a Network Day during that Cycle will be deemed to be the average daily Quantity of Gas delivered through that Delivery Point during that Cycle, multiplied by a factor of 1.3, unless the Network User provides Envestra with evidence that a factor of 1.3 is not appropriate for the Delivery Point concerned.

4.7. Domestic Delivery Point

If a Delivery Point to which clauses 4.2, 4.3, 4.4, and 4.5 apply is or becomes a Domestic Delivery Point, those clauses will not apply in relation to the period during which that Delivery Point is a Domestic Delivery Point.

4.8. Cessation

Clauses 4.2, 4.3, 4.4 and 4.5 will cease to apply to, or in relation to, a Delivery Point when the Metering Equipment at that Delivery Point has been read on two occasions that are 12 months, or approximately 12 months, apart.

4.9. Misclassification Reconciliation

If the Charges for a Delivery Point were calculated pursuant to clause 4.3 on the basis that the Delivery Point was a Demand Delivery Point but the Quantity of Gas delivered through that Delivery Point during the first Metering Year was less than 10 TJ, Envestra may impose a misclassification charge in respect of that Delivery Point.

4.10. Calculation of Charge

If the Charges for a Delivery Point were calculated pursuant to clause 4.2 or pursuant to clause 4.3 on the basis that the Delivery Point was a

- (a) Demand Delivery Point but during the first Metering Year the Delivery Point has not qualified as a Demand Delivery Point; or

- (b) Commercial Delivery Point but during the first Metering Year the Delivery Point is reclassified as Demand Delivery Point in accordance with clause 4.4 or 4.5, then

the Delivery Point has been misclassified and a reconciliation of Charges will be made to account for the difference between the Charges that were paid for the Delivery Point because it was misclassified and the Charges that would have been paid had the Delivery Point been correctly classified. Envestra will refund to the Network User those Charges that would not have been paid had the Delivery Point been correctly classified and the Network User will pay Envestra those Charges that were not paid because the Delivery Point was misclassified. For the purposes of this clause, where it is necessary to calculate the Charges that would have been paid if a Delivery Point had been classified as a Demand Delivery Point, those Charges will be determined on the basis that the MDQ for that Delivery Point was equal to the highest Quantity of Gas that has been delivered to, or for the account of, the Network User on any Network Day.

4.11. Invoice

Where practical, details of any refund or payment due in respect of a Delivery Point under clause 4.9 will be included in, or will accompany, the next invoice given to the Network User pursuant to the Agreement after the misclassification reconciliation has been calculated.

4.12. Survival

This section will survive the termination of the Agreement.

5. CAPACITY MANAGEMENT

5.1. Maximum Daily Quantity

Subject to clause 5.3, the Maximum Daily Quantity for a Delivery Point is the maximum Quantity of Gas that Envestra is obliged to deliver through that Delivery Point to or for the account of the Network User during any Network Day.

5.2. Maximum Hourly Quantity

Subject to clause 5.3, the Maximum Hourly Quantity for a Delivery Point is the maximum Quantity of Gas which Envestra is obliged to deliver through that Delivery Point to or for the account of the Network User during any period of 60 minutes.

5.3. Network Limitations

At no time will Envestra have any obligation to deliver more Gas through any User Delivery Point than is possible given the technical, physical and practical limitations of the Network, and the pressure and flow-rate of Gas within the Network, at that time.

5.4. Gas Balancing

At all times during the Term, the Network User must ensure that the aggregate Quantity of Gas delivered through each User Receipt Point by or for the account of the Network User is equal to the aggregate Quantity of Gas delivered to or for the account of the Network User through each User Delivery Point.

5.5. Quantities Received

Envestra may determine the Quantity of Gas delivered through each User Receipt Point by or for the account of the Network User from time to time on a reasonable basis.

5.6. Overselling Capacity

Envestra must not connect a new Delivery Point to the Network if Envestra believes that, under 'normal conditions' and as a consequence of connecting that new Delivery Point, there will be insufficient Capacity in the Network to meet the anticipated demand for Gas at any User Delivery Point. 'Normal conditions' here means those conditions which normally occur in the Network when taking into account daily, weekly and seasonal influences.

6. DAILY OVERRUNS

6.1. Telemetered Delivery Points

Whenever the Quantity of Gas delivered through any Telemetered User Delivery Point on any Network Day exceeds the MDQ for that Delivery Point, the Network User will pay Envestra a daily overrun charge in accordance with this section.

6.2. Calculation of Daily Overrun Charge

The daily overrun charge payable for a given Telemetered Delivery Point, in respect of a given Network Day, will be calculated in accordance with the formula:

$$(PDQ - MDQ) \times OR$$

where:

PDQ (peak day quantity) is the Quantity of Gas delivered through that Telemetered Delivery Point on that Network Day;

MDQ is the Maximum Daily Quantity for that Delivery Point on that Network Day; and

OR is the Overrun Rate.

6.3. Invoicing

Each invoice given by Envestra to the Network User pursuant to the Agreement will (where practical) include, or be accompanied by, details of the daily overrun charges payable by the Network User for each Telemetered User Delivery Point in respect of each Network Day during the most recent Cycle for that Delivery Point.

6.4. MDQ Increase (Four OVERRUNS in a Month)

Whenever the Quantity of Gas delivered through any Telemetered Delivery Point exceeds the MDQ for that Delivery Point on four Network Days during any period of 30 days, the MDQ for that Telemetered Delivery Point will be increased, with effect from the end of that fourth Network Day, so that it is equal to the highest Quantity of Gas delivered through that Delivery Point on any of those four Network Days.

6.5. MDQ Increase (Eight Overruns in a Year)

Whenever the Quantity of Gas delivered through any Telemetered Delivery Point exceeds the MDQ for that Delivery Point on eight Network Days during any period of one Year, the MDQ for that Delivery Point will be increased, with effect from the end of the eighth Network Day, so that it is equal to the highest Quantity of Gas delivered through that Delivery Point on any one of those eight Network Days.

6.6. Other Delivery Points

Whenever the Quantity of Gas delivered through any Demand Delivery Point (other than a Telemetered Delivery Point) on any Network Day exceeds the MDQ for that Delivery Point, the MDQ for that Delivery Point will be increased, with effect from the start of that Network Day, so that it is equal to the Quantity of Gas delivered through that Delivery Point on that Network Day. The increase in MDQ outlined in this clause is not triggered if the Metering Equipment at the Demand Delivery Point does not measure the Quantity of Gas delivered on a particular Network Day.

6.7. Deemed Deliveries

For the purposes of the previous clause, if the Metering Equipment at a Demand Delivery Point does not measure the Quantity of Gas delivered on a particular Network Day (as distinct from other Network Days), the Quantity of Gas delivered through that Delivery Point on the first Network Day in a Cycle will be deemed to be 1.3 times the daily average Quantity of Gas delivered through that Delivery Point during that Cycle, unless the Network User provides Envestra with evidence that a factor of 1.3 is not appropriate for the Delivery Point concerned.

6A. TEMPORARY INCREASE OF MDQ

6A.1 Demand Delivery Points

The Network User may request Envestra to deliver through a Delivery Point a Quantity of Gas that exceeds the MDQ for that Delivery Point, for each Network Day in a particular Cycle. If Envestra agrees to that request then the MDQ for that Delivery Point will be increased for that Cycle as requested (or as agreed). Increases pursuant to clauses 6.4, 6.5, 6.6, 7.4 or 7.5 only apply if the increased MDQ is itself exceeded).

6A.2 Requests for Temporary Increase in MDQ

Requests for a temporary increase in MDQ must be submitted to Envestra at least 28 days before the increase is required. An administration fee of \$100 will apply for each request. In addition, if engineering analysis is required, such costs shall be borne by the party making the request, but will be agreed in advance with that party, based on an hourly rate of \$75 per person per hour.

7. HOURLY OVERRUNS

7.1. Telemetered Delivery Points

Whenever the Quantity of Gas delivered through any Telemetered User Delivery Point during any period of 60 minutes exceeds one twelfth of the MDQ for that Delivery Point, the Network User will pay Envestra an hourly overrun charge in accordance with this section.

7.2. Calculation of Hourly Overrun Charge

The hourly overrun charge payable for a given Telemetered Delivery Point, in respect of a given period of 60 minutes, will be calculated in accordance with the formula:

$$((12 \times \text{PHQ}) - \text{MDQ}) \times \text{OR}$$

where:

PHQ (peak hourly quantity) is the Quantity of Gas delivered through that Telemetered Delivery Point during that period of 60 minutes;

MDQ is the Maximum Daily Quantity for that Delivery Point on that Network Day ; and

OR is the Overrun Rate.

7.3. Invoicing

Each invoice given by Envestra to the Network User pursuant to the Agreement will (where practical) include, or be accompanied by, details of the hourly overrun charges payable by the Network User in respect of each Telemetered User Delivery Point in respect of each period of 60 minutes that ended during the most recent Cycle for that Delivery Point.

7.4. MDQ Increase (Four Overruns in a Month)

Whenever the Quantity of Gas delivered through any Telemetered Delivery Point exceeds one twelfth of the MDQ for that Delivery Point during four periods of 60 minutes in any period of 30 days, the MDQ for that Delivery Point will be increased, with effect from the end of the last of those four periods, so that it is equal to twelve times the highest Quantity of Gas delivered through that Delivery Point during any one of those four periods.

7.5. MDQ Increase (Eight Overruns in a Year)

Whenever the Quantity of Gas delivered through any Telemetered Delivery Point exceeds one twelfth of the MDQ for that Delivery Point during eight periods of sixty minutes in any period of one year, the MDQ for that Delivery Point will be increased, with effect from the end of the last of those eight periods, so that it is equal to twelve times the highest Quantity of Gas delivered through that Delivery Point during any one of those eight periods.

7.6. Single Overrun Charge

If the Network User would (in the absence of this clause) have to pay both a daily overrun charge and an hourly overrun charge in respect of Gas delivered through a particular Demand Delivery Point on a given Network Day, then the Network User will have to pay only the higher of those two charges.

7A LIMITATION PERIOD – MDQ INCREASE

7A.1 Interpretation.

For the purposes of this clause 7A, the following terms will have the following meanings:

"**the previous MDQ**", in relation to the revised MDQ for a Delivery Point, means the MDQ applicable to that Delivery Point immediately before it was increased, pursuant to section 6 or section 7, to produce that revised MDQ.

"**the relevant two-year period**":

- (a) in relation to the revised MDQ for a Telemetered Delivery Point, means the period of two years that begins on the day on which the MDQ for that Delivery Point was increased, pursuant to section 6 or section 7, to produce that revised MDQ; and
- (b) in relation to the revised MDQ for a Demand Delivery Point that is not a Telemetered Delivery Point, means the period of 24 Cycles commencing with the first Cycle that begins when the MDQ for that Delivery Point was increased, pursuant to section 6 or section 7, to produce that revised MDQ.

"**the revised MDQ**", in relation to a Delivery Point, means the MDQ for that Delivery Point as increased from time to time pursuant to section 6 or section 7.

7A.2 Application of Revised MDQ

Whenever the MDQ for a Delivery Point is increased pursuant to section 6 or section 7, the revised MDQ will apply (subject to section 6A) until it is again increased pursuant to those sections or it is decreased pursuant to one of the next two clauses.

7A.3 Cessation of Revised MDQ (Telemetered Delivery Points)

The revised MDQ for a Telemetered Delivery Point will be decreased to the previous MDQ for that Delivery Point, with effect from the end of the relevant two-year period, unless:

- (a) the Quantity of Gas delivered through that Delivery Point, on any Network Day during that relevant two-year period, exceeded the previous MDQ for that Delivery Point; or
- (b) the Quantity of Gas delivered through that Delivery Point in any period of sixty minutes during that relevant two-year period exceeded one twelfth of the previous MDQ for that Delivery Point.

7A.4 Cessation of Revised MDQ (Other Demand Delivery Points)

The revised MDQ for a Demand Delivery Point (that is not a Telemetered Delivery Point) will be decreased to the previous MDQ for that Delivery Point, with effect from the end of the relevant two-year period, unless the Quantity of Gas delivered through that Delivery Point, on any Network Day during that relevant two-year period, exceeded the previous MDQ for that Delivery Point.

7A.5 Deemed Deliveries

For the purposes of the previous clause, the Quantity of Gas delivered through a Delivery Point on each Network Day during a Cycle will be deemed to be 1.3 times the daily average

Quantity of Gas delivered through that Delivery Point during that Cycle, unless the Network User provides Envestra with evidence that a factor of 1.3 is not appropriate for the Delivery Point concerned.

8. METERING EQUIPMENT

8.1. Metering Equipment

Envestra will ensure each User Delivery Point has Metering Equipment to measure the Volume of Gas delivered to that Delivery Point.

8.2. Standard

Envestra will have no obligation to install Metering Equipment at any Delivery Point that is of a higher standard than Standard Metering Equipment or that is more costly than Standard Metering Equipment.

8.3. Maintenance

Envestra will ensure that all Metering Equipment is maintained in reasonable condition throughout the Term.

9. METER ACCURACY

9.1. Scheduled Meter Testing

Envestra must ensure that the accuracy of the Metering Equipment at any User Delivery Point is tested at intervals approved by the Technical Regulator.

9.2. Unscheduled Meter Testing

Envestra will also test the accuracy of the Metering Equipment at or from any User Delivery Point whenever it is requested to do so by the Network User in accordance with the Agreement.

9.3. Form of Request

If the Network User wishes to request Envestra to test the Metering Equipment at or from a User Delivery Point, the Network User must give Envestra whatever forms, documents and information Envestra requires.

9.4. Notice of Tests

Whenever Envestra is required to conduct a test under the Agreement, Envestra will notify the Network User of the time or times at which Envestra intends to conduct that test. The Network User may witness the test.

9.5. Notice of Results

Envestra will give the Network User notice of the results of any test conducted at the request of the Network User pursuant to the Agreement as soon as practicable after that test has been conducted.

9.6. Inaccurate Meters

Subject to the Agreement, if any test of Metering Equipment pursuant to the Agreement shows that the measurements taken by that Metering Equipment are outside a margin of accuracy of plus or minus 2% (the ‘allowable margin of accuracy’) of the net Volume of Gas delivered through that Metering Equipment then Envestra must:

- (a) adjust or repair that Metering Equipment as soon as is practicable so that the measurements it takes are within the allowable margin of accuracy or replace that Metering Equipment with Metering Equipment that takes measurements within the allowable margin of accuracy; and
- (b) correct previous readings taken from that Metering Equipment to reflect the actual Gas delivered (or a reasonable estimate of the Gas delivered) since the date of the last reading taken from that Metering Equipment or, if later, the last date on which that Metering Equipment was tested and the measurements found to be within the allowable margin of accuracy.

9.7. Basis for Corrections

If Envestra is required by the Agreement to correct previous readings taken from any Metering Equipment, Envestra will make those corrections on whatever basis it considers reasonable in the circumstances. The corrections will bind the Network User in the absence of manifest error.

9.8. Maximum Correction

Envestra will not have to correct the readings taken from any Metering Equipment more than one year prior to the date of the relevant test unless Envestra is required to do so by law or the Customer Service Code.

9.9. Test Fees

If the Network User requests a test pursuant to the Agreement, Envestra will not have to conduct that test if the Network User has not paid (or, where permitted by Envestra, agreed to pay) Envestra a test fee of an amount equal to the cost of the test or the maximum amount permitted by law, whichever amount is lesser.

9.10. Refund of Fees

If the Network User has paid Envestra a test fee for testing any Metering Equipment and the test shows that the measurements taken by that Metering Equipment are outside the allowable margin of accuracy, Envestra will refund that test fee to the Network User or credit the Network User with that test fee in the next invoice issued pursuant to the Agreement.

9.11. Adjust Accounts

If Envestra is required by the Agreement to correct readings taken from any Metering Equipment, it will recalculate the Charges for the relevant Delivery Point and debit the Network User with any underpayment, or credit the Network User with any overpayment, in the next invoice issued pursuant to the Agreement.

10. SCHEDULED METER READING

10.1. Volume Delivery Points

Subject to the Agreement, Envestra will ensure that the Metering Equipment at a Volume Delivery Point (to which Gas is delivered to or for the account of the Network User) is read during the Term at intervals of 90 days or approximately 90 days.

10.2. Demand Delivery Points

Subject to the Agreement, Envestra will ensure that the Metering Equipment at a Demand Delivery Point (to which Gas is delivered to or for the account of the Network User) is read during the Term at intervals of 30 days or approximately 30 days.

10.3. First Reading - Volume Delivery Points

Envestra will undertake the first reading of the Metering Equipment at a Volume Delivery Point at whatever time is convenient to Envestra so long as that reading is taken no more than 90 days, or approximately 90 days, after Envestra first delivers Gas through that Delivery Point to or for the account of the Network User pursuant to the Agreement.

10.4. First Reading - Demand Delivery Points

Envestra will undertake the first reading of the Metering Equipment at a Demand Delivery Point at whatever time is convenient to Envestra so long as that reading is taken no more than 30 days, or approximately 30 days, after Envestra first delivers Gas through that Delivery Point to or for the account of the Network User pursuant to the Agreement.

10.5. Final Reading - Volume Delivery Points

After the Term ends, Envestra will undertake a final reading of the Metering Equipment at a Volume Delivery Point at whatever time is convenient to Envestra so long as that reading is taken no more than 90 days, or approximately 90 days, after the previous reading.

10.6. Final Reading - Demand Delivery Points

After the Term ends, Envestra will undertake a final reading of the Metering Equipment at a Demand Delivery Point at whatever time is convenient to Envestra so long as that reading is taken no more than 30 days, or approximately 30 days, after the previous reading.

10.7. No Measurements

If the Volume of Gas delivered at any Delivery Point during any period is not measured by the Metering Equipment at that Delivery Point for any reason whatsoever, Envestra may estimate the Volume of Gas delivered at that Delivery Point during that period on a basis that is reasonable in the circumstances.

11. GAS SPECIFICATIONS

11.1. Specifications

The Network User will ensure that Gas delivered to Envestra by or for the account of the Network User meets the specifications reasonably specified from time to time by Envestra by notice given to the User. Envestra may specify different specifications for distinct parts of the

Network. Envestra will determine the gas specification by agreement with the Technical Regulator.

11.2. Failure to Comply

If Gas delivered or to be delivered into the Network (or any part of it) does not meet the specifications then applicable to the Network (or the relevant part of it), Envestra may curtail or interrupt deliveries through any Receipt Point or Delivery Point, flare or release Gas from the Network or take whatever other steps Envestra considers necessary or desirable to ensure that Gas within the Network meets the specifications and does not present a threat to any person or property.

12. RECEIPT PRESSURES

12.1. Receipt Pressure

The Network User will ensure that Gas delivered at any Receipt Point by or for the account of the Network User is delivered at a pressure which is within the limits specified for that Receipt Point from time to time by Envestra by notice given to the User.

12.2. No Unfair Discrimination

Envestra may not specify pressures for any Receipt Point pursuant to clause 12.1 that unfairly discriminate between that Receipt Point and other Receipt Points unless the discrimination is justifiable:

- (a) on grounds that relate to the technical, physical or practical limitations of that Receipt Point or any other Receipt Point or the Network (or any part of it); or
- (b) on grounds that relate to the operational integrity of the Network (or any part of it) or the safe and efficient operation of the Network (or any part of it).

12.3. Failure to Comply

If the pressure of Gas delivered at any Receipt Point is not within the limits specified for that Receipt Point by Envestra, Envestra may curtail or interrupt deliveries through any Receipt Point or any Delivery Point, or flare or release Gas in the Network or take whatever other steps Envestra considers necessary or desirable to increase or reduce the pressure of Gas within the Network or to avoid any threat to any person or property.

13. DELIVERY PRESSURES

13.1. Delivery Pressure

Subject to the Agreement, Envestra will ensure that Gas delivered at each User Delivery Point during the Term is at a pressure of no less than 1.0 kPa.

13.2. Exclusion of Liability

Envestra will not breach its obligations under the previous clause where its failure to comply with that clause is due to:

- (a) the technical, practical and physical limitations of the Network;
- (b) the fact that insufficient Gas is delivered into the Network; or

- (c) the fact that Gas is delivered into the Network at pressures outside the limits specified from time to time by Envestra,

whether or not Envestra knew, or ought to have known, of those facts or matters at any time before, on or after the Start Date.

13.3. No Implied Obligation

Nothing in clauses 13.1 or 13.2 imposes any obligation on Envestra to take any steps to modify the technical, practical or physical limitations of the Network or to cause or procure the delivery of Gas into the Network or to ensure that Gas is delivered into the Network at pressures within the limits specified from time to time by Envestra.

13.4. Gas Regulations

Nothing in clauses 13.2 or 13.3 relieves Envestra of any obligations it might have under Regulation 12(6) of the Gas Regulations 1997.

14. POSSESSION OF GAS AND RESPONSIBILITY

14.1. Control and Possession

As between Envestra and the Network User:

- (a) the Network User will be in control and possession of Gas prior to its delivery into the Network and after its delivery out of the Network;
- (b) Envestra will be in control and possession of the Gas following its delivery into the Network and prior to its delivery out of the Network.

14.2. No Responsibility before Receipt

Envestra will have no responsibility or liability whatsoever with respect to any Gas before it is delivered into the Network. This clause will survive the termination of the Agreement.

14.3. Limited Responsibility after Delivery

To the extent permitted by law, Envestra will have no responsibility or liability whatsoever with respect to any Gas, after it is delivered out of the Network, on account of anything which may be done, happen or arise with respect to that Gas prior to receipt at any Receipt Point or after delivery at any Delivery Point, provided that Envestra has complied with its obligations pursuant to section 13. This clause will survive the termination of the Agreement.

15. WARRANTIES AND TITLE TO GAS

15.1. Warranty of Title to Gas

The Network User warrants that the Network User has good title to all Gas supplied to Envestra at each Receipt Point by or for the account of the Network User, free and clear of all mortgages, charges and other encumbrances and all other third party rights and claims in and to any Gas (other than any floating charge that has not become a fixed charge and that permits the Network User to sell or supply that Gas). The Network User also warrants that the Network User has the right to supply Gas at each Receipt Point for transportation by Envestra under the Agreement.

15.2. Repetition of Warranties

The warranties made by the Network User under the previous clause will be deemed to be repeated on each day on which Gas is delivered to or for the account of the Network User at any Receipt Point or any Delivery Point, by reference to the circumstances applicable on that day.

15.3. Indemnity

The Network User will indemnify Envestra against any loss, cost, expense or damage arising from or out of any breach by the Network User of any warranty made or deemed to be made by the Network User under the Agreement.

15.4. Title

Title to the Gas received by Envestra at any Receipt Point will not pass to Envestra.

15.5. Commingling of Gas

The Gas delivered to Envestra at any Receipt Point may be commingled with other Gas in the Network. Envestra will be entitled to deliver Gas in a commingled state to each User Delivery Point.

16. SUPPLY CURTAILMENT

16.1. Right to Curtail

Subject to clauses 16.2 and 16.3, Envestra may interrupt or curtail deliveries of Gas through the Network (whether to or for the account of the Network User or to or for the account of any other person):

- (a) where necessary to permit maintenance, repairs, improvements or alterations to the Network or any part of it;
- (b) where necessary to protect the operational integrity of the Network or any part of it or to ensure the safe and efficient operation of the Network or any part of it;
- (c) where the Quantity of Gas delivered into the Network or any part of it is insufficient to meet demand; or
- (d) in the event of an emergency or where necessary to avert danger to persons or property or to comply with any law.

16.2. Planned Maintenance

Envestra will give the Network User or the Network User's Customers at least seven days' notice whenever Envestra proposes to interrupt or curtail deliveries of Gas to or for the account of the Network User in order that Envestra may undertake Planned Maintenance or augment the Network.

16.3. Order of Priority

If Envestra proposes to interrupt or curtail deliveries of Gas pursuant to clause 16.1 and it has a choice about which deliveries it will interrupt or curtail, or the order in which it will interrupt or curtail deliveries, then, to the extent that it is practicable to do so, Envestra will endeavour to interrupt or curtail deliveries in the following descending order of priority:

- (a) Interruptible Delivery Points;
- (b) Demand Delivery Points with alternative fuel sources;
- (c) Demand Delivery Points with the ability to shut down their plant or operations with minimal disruption;
- (d) Demand Delivery Points which are capable of releasing the greatest capacity to that part or parts of the Network in respect of which load shedding is required;
- (e) other Demand Delivery Points;
- (f) Commercial Delivery Points;
- (g) Domestic Delivery Points;
- (h) emergency or essential services (such as hospitals).

Where two or more Delivery Points fall within a particular category specified in this clause, Envestra may interrupt or curtail deliveries to those Delivery Points in such order as Envestra determines having regard to the relevant circumstances.

16.4. Categorisation of Delivery Points

For the purposes of clause 16.3, Envestra will determine, in good faith, into which category any particular Delivery Point falls, based on its actual knowledge of the Delivery Point. Envestra's determination will bind the Network User.

16.5. Network User Information

The Network User must give Envestra whatever information Envestra reasonably requests from time to time to enable Envestra to interrupt or curtail deliveries of Gas pursuant to the Agreement. That information may include (but is not limited to) emergency contact details for the Network User and for the Network User's Customers.

16.6. Updates

The Network User must give Envestra whatever additional information is necessary from time to time to ensure that all information given to Envestra pursuant to the previous clause remains true, correct and up to date throughout the Term.

16.7. Assistance

The Network User must give Envestra (and must cause or procure each Network User's Customer to give Envestra) whatever assistance Envestra reasonably requests from time to time to interrupt or curtail deliveries of Gas to or for the account of the Network User.

PART III: ANCILLARY REFERENCE SERVICES

17. DISCONNECTION AND RECONNECTION SERVICES

17.1. Inlet Disconnection Service

Subject to the Agreement, at the request of the Network User from time to time, Envestra will isolate from the Network, pipework supplying Gas to a Domestic Delivery Point through which Envestra delivers Gas to or for the account of the Network User.

17.2. Inlet Reconnection Service

Subject to the Agreement, at the request of the Network User from time to time, Envestra will:

- (a) reconnect to the Network, pipework that supplies Gas to a Domestic Delivery Point which Envestra has previously disconnected from the Network and through which Envestra is or will be required to deliver Gas to or for the account of the Network User; and
- (b) relight any appliances installed at the place or premises to which Gas is delivered through the reconnected Delivery Point.

17.3. Form of Request

If the Network User wishes to request Envestra to disconnect or reconnect any Domestic Delivery Point that is a User Delivery Point, the Network User must give Envestra whatever forms, documents and information Envestra requires.

17.4. Provision of Service

Subject to the Agreement, whenever Envestra receives a request made pursuant to the Agreement for the disconnection or reconnection of a Domestic Delivery Point that is a User Delivery Point, Envestra must use its best endeavours to disconnect or reconnect that Delivery Point as soon as is practicable.

17.5. Time Limits

Envestra will have no obligation to disconnect or reconnect any Domestic Delivery Point earlier than two Business Days after the disconnection or reconnection was requested in accordance with the Agreement. Envestra will have no obligation to disconnect or reconnect any Domestic Delivery Point on a day other than a Business Day or at a time before 7:30am or after 4:00pm on a Business Day.

17.6. Payment of Charge

Envestra will have no obligation to disconnect or reconnect any Domestic Delivery Point if the Network User has not paid (or, where permitted by Envestra, agreed to pay) Envestra the Charge for that Service as set out in the then most recent Tariff Schedule.

17.7. Multiple Network Users

Envestra will have no obligation under the Agreement to disconnect any Domestic Delivery Point if Envestra believes that:

- (a) it has or might have an obligation to deliver Gas through that Domestic Delivery Point to or for the account of any other person or persons; and
- (b) the disconnection of that Domestic Delivery Point will or might cause Envestra to breach that obligation.

17.8. Breach of Law

Envestra will have no obligation to disconnect or reconnect any Domestic Delivery Point if Envestra has reason to believe that the disconnection or reconnection of that Delivery Point will or might constitute a breach by Envestra or the Network User of any law or of the Customer Service Code.

18. SPECIAL METER READING SERVICE

18.1. Special Meter Reading Service

Subject to the Agreement, at the request of the Network User from time to time, Envestra will read the Metering Equipment at any User Delivery Point specified by the Network User that is associated with a change of Network User or Customer at a Delivery Point and is in addition to scheduled meter readings that form part of the Haulage Reference Services.

18.2. Form of Request

If the Network User wishes to request a reading of Metering Equipment pursuant to the Agreement, the Network User must give Envestra whatever forms, documents and information Envestra requires.

18.3. Meter Reading

Whenever Envestra receives a request made in accordance with the Agreement for a reading of Metering Equipment, Envestra will use its best endeavours to read that Metering Equipment on the day requested by the Network User (or as soon as practicable after that day) or, if the Network User has not nominated a particular day, within a reasonable time after the request was received.

18.4. Limit on Time

Envestra will have no obligation to read any Metering Equipment earlier than two Business Days after the reading was requested in accordance with the Agreement. Envestra will have no obligation to read any Metering Equipment on a day other than a Business Day or at a time before 7:30am or after 4:00pm on a Business Day.

18.5. Payment of Charge

Envestra will have no obligation to read any Metering Equipment at the request of the Network User if the Network User has not paid (or, where permitted by Envestra, agreed to pay) Envestra the Charge for that Service as set out in the then most recent Tariff Schedule.

18.6. Details of Reading

Whenever Envestra reads any Metering Equipment at the request of the Network User pursuant to the Agreement, Envestra will provide details of the readings to the Network User as soon as practicable.

PART IV: GENERAL TERMS AND CONDITIONS

19. INVOICING AND PAYMENT OF CHARGES FOR REFERENCE SERVICES

19.1. Obligation to Pay Charges

In consideration for the services provided or to be provided under the Agreement, the Network User must pay Envestra the Charges calculated from time to time in accordance with the Agreement and the Tariff Schedule.

19.2. First Payment

On execution of the Agreement, the Network User will pay Envestra, based on the terms and conditions, an amount equal to the Charges which Envestra reasonably estimates are likely to become payable by the Network User (including any GST payable in respect of any taxable supply to which those Charges relate) in respect of the period commencing on the Start Date and ending on the last day of the second calendar month to end after the Start Date. (For example, if the Start Date is in June, the Charges will be for the period up until the end of July.)

19.3. Second and Subsequent Payments

At or after the end of each calendar month that ends during the Term (and at or after the end of the Term) Envestra will send the Network User an invoice for an amount calculated as follows:

$$I = (AC_{m-1} - EC_{m-1}) + EC_m + EC_{m+1}$$

where:

I is the invoice amount;

AC_{m-1} is the actual Charges for the calendar month prior to that in which the invoice is issued (or, if the invoice is issued after the end of the Term, for the month in which the Term ended)(including any GST payable in respect of any taxable supply to which those Charges relate), determined in accordance with the Agreement on the assumption that any Quantity of Gas estimated to have been delivered through any User Delivery Point was the Quantity of Gas actually delivered;

EC_{m-1} is the amount already paid to Envestra on account of Charges expected to become payable for the month prior to that in which the invoice is issued (including any GST payable in respect of any taxable supply to which those Charges relate);

EC_m is the difference between the amount Envestra estimates (estimates being based on the profile of previous consumption, where applicable) is likely to become payable on account of Charges for the month in which the invoice is issued (including any GST payable in respect of any taxable supply to which those Charges relate), and the amount that Envestra previously estimated (in invoices) was likely to become payable on account of Charges for the month in which the invoice is issued (including any GST payable in respect of any taxable supply to which those Charges relate); and

EC_{m+1} is the amount Envestra estimates is likely to become payable on account of Charges for the month after that in which the invoice is issued (including any GST payable in respect of any taxable supply to which those Charges relate).

19.4. Other Information

Envestra will also ensure that each invoice sets out, or is accompanied by, the following information where applicable:

- (a) the aggregate Quantity of Gas delivered, or estimated to have been delivered, at the User Delivery Points to or for the account of the Network User during the relevant month, determined in accordance with the Agreement;
- (b) any other information which Envestra is required under the Agreement to include in the invoice.

Envestra may give any or all of the information mentioned in this clause to the Network User in electronic form.

19.5. Payment of Invoices

The Network User must pay the amount shown in any invoice (issued pursuant to clause 19) to Envestra within 14 days of the date of the invoice.

19.6. Prepayments

Any amount paid by the Network User on account of Charges or GST expected to become payable in any month, may be applied by Envestra in payment of Charges or GST for that month, or if the amount paid exceeds the amount due for that month the excess payment will be applied to the next month.

20. CORRECTION OF BILLING ERRORS

If the Network User notifies Envestra of an error in an invoice issued by Envestra pursuant to the Agreement and Envestra agrees that an error has occurred, then the error will be corrected within thirty days of the determination of the error. No claim for an adjustment will be made by the Network User after the expiration of the period mentioned in clause 25.3 or, in any event, more than twelve months after the date of the invoice.

21. DELIVERED QUANTITIES

21.1. Basis for Determination

Whenever Envestra prepares an invoice for a given month, the Quantity of Gas shown in that invoice to have been delivered (or estimated to have been delivered) will be determined by Envestra in accordance with the Agreement.

21.2. Meter Reading

If the Metering Equipment at a Delivery Point was read during the month to which an invoice relates, the Quantity of Gas delivered through that Delivery Point during that month, to the time of the reading, will be determined in accordance with the formula:

$$VOL \times GHV$$

where:

VOL is the Volume of Gas which was delivered through the Delivery Point to the time of the reading during that month, expressed in Cubic Metres; and

GHV is the Gross Heating Value of Gas in the Network during that month, determined from time to time in accordance with procedures approved by the Technical Regulator, or if there are no approved procedures at the relevant time, on whatever basis Envestra considers reasonable.

21.3. Readings That Cover Multiple Months

For the purposes of the previous clause, where a reading taken from the Metering Equipment at a Delivery Point includes or might include Gas delivered prior to the relevant month, the Volume of Gas delivered during that month will be determined on the basis that an equal Volume of Gas was delivered on each day during the period to which the reading relates.

21.4. No Meter Reading

If no reading was taken from the Metering Equipment at a Delivery Point during the month to which an invoice relates or if a reading was taken prior to the last day of that month, Envestra may estimate the Quantity of Gas delivered through that Delivery Point during that month (or, if the Metering Equipment was read prior to the end of that month, in the period since the last meter reading) on a reasonable basis.

21.5. Allocation of Deliveries

If Envestra agrees to deliver Gas to any Delivery Point during any period for the account of the Network User and for the account of someone other than the Network User, then Envestra will do so on an agreed basis.

21.6. Reconciliation

If the Charges payable by the Network User in respect of any month were calculated on the basis of estimated deliveries of Gas during that month and subsequently a reading taken from Metering Equipment enables Envestra to determine the actual Quantity of Gas delivered (assuming, if necessary, that Gas was delivered at a constant rate), Envestra will determine the actual Quantity of Gas delivered (if necessary, based on that assumption) and will determine whether the Network User has overpaid or underpaid the tariffs and other charges. Envestra will credit the Network User with any overpayment, or debit the Network User with any underpayment, in the next invoice issued pursuant to the Agreement.

21.7. Determinations Conclusive

Envestra will determine on a reasonable basis the Quantities of Gas delivered to any Delivery Point for the account of the Network User during any period. Such determination will be conclusive and binding on the Network User, unless proven incorrect.

22. METHOD OF PAYMENT

22.1. Method of Payment

Payment by the Network User will be made in immediately available funds on or before the due date by telegraphic transfer to a bank account designated by Envestra by notice in writing to the Network User, or by other agreed method of payment.

22.2. No Set-Off

Payment by the Network User will be made in full without set-off, counterclaim or deduction, or withholding on any account whatsoever.

22.3. Business Days

If any payment by the Network User falls due on a day that is not a Business Day, then the payment will be made on the Business Day immediately prior to the due date for payment.

23. FAILURE TO PAY

23.1. Overdue Interest

If the Network User fails to pay any amount by the date on which that amount is due, then the Network User will pay Envestra interest on the unpaid amount to the extent that it remains unpaid from time to time. Interest will be calculated on a daily basis and will accrue at a rate which is two per cent higher than the Interest Rate. Accrued interest is payable to Envestra on demand. Interest not paid in the month in which it accrues will be capitalised and will itself bear interest in accordance with this clause. This clause will survive the termination of the Agreement.

23.2. Right to Set Off Unpaid Amounts

If the Network User does not pay any amount due to Envestra under the Agreement, then Envestra may withhold and set off payment of any amounts due or owing by Envestra to the Network User against any and all amounts due or owing by the Network User to Envestra. This clause will survive the termination of the Agreement.

23.3. Right to Suspend Services

If the Network User does not pay any amount due to Envestra under the Agreement, or under any Related Haulage Agreement, then Envestra may cease delivering Gas through any Delivery Point to or for the account of the Network User, and may cease performing any of its other obligations under the Agreement, until such time as the Network User has paid in full all unpaid amounts due to Envestra together with any interest accrued on those amounts.

24. TERMINATION

24.1. Automatic Termination

Subject to clauses 24.2 and 24.3, unless the Parties otherwise agree, the Agreement will terminate on the date set out in, or determined in accordance with, the Specific Terms and Conditions.

24.2. Termination by Envestra

Envestra may terminate the Agreement by seven days' notice given to the Network User at any time, in the event that:

- (a) the Network User fails to pay any amount due to Envestra on time in the manner required by the Agreement or any Related Haulage Agreement;
- (b) the Network User breaches any other obligation under or in relation to the Agreement or any Related Haulage Agreement and, where that breach can be remedied, fails to remedy that breach to the satisfaction of Envestra within 14 days after it receives notice of that breach;
- (c) the Network User becomes an externally-administered body corporate or insolvent under administration (as defined in the Corporations Act 2001 of the Commonwealth);
- (d) the Network User ceases to meet the requirements of the Credit Policy; or
- (e) there is any material adverse change, in the reasonable opinion of Envestra, in the ability of the Network User to comply with the terms of, or its obligations under, the Agreement or any Related Haulage Agreement.

24.3. Termination by the Network User

The Network User may terminate the Agreement by seven days' notice given to Envestra at any time in the event that Envestra breaches any obligation under or in relation to the Agreement and, where that breach can be remedied, fails to remedy that breach to the satisfaction of the Network User within 14 days after it receives notice of that breach from the Network User.

24.4. Effect of Termination

The termination of the Agreement will terminate the rights and obligations of the Network User and Envestra under the Agreement (to the extent that those rights and obligations have not then accrued), other than rights and obligations which are expressed to survive termination.

24.5. Refund of Pre-payment

Within one month after Envestra has rendered an invoice in respect of the month in which the Term ended, Envestra will refund to the Network User any amount that Envestra holds for the Network User on account of Charges not then accrued, subject to any right of set-off or counter claim which Envestra may have against the Network User.

24.6. No Other Refunds

Subject to the previous clause, Envestra will have no obligation to refund or repay any amount paid by the Network User to Envestra on account of Charges to become payable under the Agreement.

25. SERVICE PROVIDER'S LIABILITY

25.1. Indemnity against Property Damage and Personal Injury

- (1) Subject to the other terms of the Agreement (other than clauses 25.5 and 25.6), Envestra will indemnify the Network User against any damage that is caused to property of the Network User or a Customer of the Network User or injury (including death) caused to a servant, agent or contractor of the Network User or a Customer of

the Network User as a result of any negligent act or omission on the part of Envestra or its servants, agents or contractors in connection with:

- (a) the provision to the Network User of Network Services pursuant to the Agreement; or
 - (b) the operation, maintenance, repair, administration or management of the Network or any part of it,
- (2) Envestra's obligation to indemnify the Network User under this clause will be reduced in proportion to the extent that any act or omission on the part of the Network User or its servants, agents or contractors (including, but without limitation, any breach by the Network User of its obligations under the Agreement) gave rise to a legal remedy and contributes to the loss or liability.

25.2. Notice of Claims

The Network User will promptly notify Envestra of any claim which the Network User has, or believes it has, against Envestra pursuant to the indemnity in clause 25.1 or as a result of any breach by Envestra of its obligations under or in relation to the Agreement (each, 'a Claim'). The Network User's obligations under this clause will survive the termination of the Agreement.

25.3. Limitation Period

To the extent permitted by law, Envestra will have no liability to the Network User, for or in respect of any Claim, unless full particulars of that Claim are given by the Network User to Envestra within three months after that Claim becomes known to the Network User or its servants or agents or should have become known to the Network User or its servants or agents (whichever is earlier). This clause will survive the termination of the Agreement.

25.4. Exclusion of Consequential Loss

To the extent permitted by law, Envestra will have no liability to the Network User (whether in tort, in contract or otherwise) for any loss of profit, revenue or opportunity, or for any other indirect, special or consequential loss, cost, expense or damage.

25.5. Exclusion of Liability for Negligence

Subject to clauses 25.1 and 25.6 and to the extent permitted by law, Envestra will have no liability to the Network User (either before or after termination of the Agreement) for any loss, cost, liability, expense or damage which the Network User may suffer or incur as a result of any negligence (or any breach of any statutory duty or any duty of care, in tort or otherwise) on the part of Envestra or its servants, agents or contractors in or in connection with:

- (a) the provision to the Network User of Network Services pursuant to the Agreement; or
- (b) the operation, maintenance, repair, administration or management of the Network or any part of it.

25.6. Liability for Gross Negligence

Clause 25.5 will not apply to the extent that Envestra, or its servants, agents or contractors, are grossly negligent, provided that Envestra's liability to the Network User in respect of a claim based on Gross Negligence will be limited by the other clauses of the Agreement.

25.7. Trade Practices Act

No clause of the Agreement will apply to the extent that it purports to exclude, restrict or modify, or has the effect of excluding, restricting or modifying:

- (a) the application of all or any of the provisions of Division 2 of Part V of the *Trade Practices Act 1974*;
- (b) the exercise of a right conferred by such a provision;
- (c) any liability of a corporation for breach of a condition or warranty implied by such a provision; or
- (d) the application of section 75A of the *Trade Practices Act 1974*.

25.8. Interpretation

For the purposes of clause 25.7, a clause of the Agreement will not be taken to exclude, restrict or modify the application of a provision or section unless the term does so expressly or is inconsistent with that provision or section.

25.9. Gas Act 1997

No clause of the Agreement is intended to vary or exclude the operation of clause 2(3) of the Schedule to the *Gas Act 1997* or to waive the benefit of any immunity conferred on Envestra by that clause or any other law.

26. CONSUMER CONTRACT LIMITATION

26.1. Application of Clause

Clause 26.2 only applies if the Agreement is a contract for the supply by a corporation of goods or services to a consumer (other than goods or services of a kind ordinarily acquired for personal, domestic or household use or consumption).

26.2. Limitation of Liability

Subject to clause 26.3, if this section applies, the liability of Envestra for breach of a condition or warranty implied by Division 2 of Part V of the *Trade Practices Act 1974* (other than a condition or warranty implied by section 69) is limited:

- (a) in the case of goods, to any one or more of the following (at the option of Envestra):
 - (i) the replacement of the goods or the supply of equivalent goods;
 - (ii) the repair of the goods;
 - (iii) the payment of the cost of replacing the goods or of acquiring equivalent goods;
 - (iv) the payment of the cost of having the goods repaired; and

- (b) in the case of services, to one of the following (at the option of Envestra):
 - (i) the supplying of the services again; or
 - (ii) the payment of the cost of having the services supplied again.

26.3. Section 68A(2) Exclusion

Clause 26.2 will not apply in the circumstances specified in section 68A(2) of the *Trade Practices Act 1974*.

26.4. Interpretation

Terms used in clauses 26.1 and 26.2 have the same meanings for the purposes of those clauses as they have for the purposes of Division 2 of Part V of the *Trade Practices Act 1974*.

27. FORCE MAJEURE

27.1. Definition

For purposes of the Agreement, Force Majeure means any event or circumstance not within the control of Envestra. It includes (but is not limited to) each of the following, to the extent that they are not within Envestra's control:

- (a) acts of God, including, without limitation, earthquakes, floods, washouts, landslides, lightning, storms and the elements;
- (b) strikes, lockouts, bans, slowdowns or other industrial disturbances;
- (c) acts of enemy, terrorism, wars, blockades or insurrections, riots and civil disturbances, arrest and restraint of rulers and peoples;
- (d) fire or explosion;
- (e) epidemic or quarantine;
- (f) order of any court or the order, act, or omission or failure to act of any government consent or approval that Envestra requires in order to perform its obligations under the Agreement and which Envestra has made a reasonable attempt to obtain; or
- (g) equipment breakdown, accident, breakages or accident to machinery or pipelines, the necessity for making repairs and/or alterations in machinery or pipelines (other than routine maintenance or where the cause of such breakdown or breakage is a lack of proper maintenance).

27.2. Consequences of Force Majeure

Non-performance as a result of Force Majeure by Envestra of any obligation or condition required by the Agreement to be performed by it:

- (a) will be excused during the time and to the extent that such performance is prevented, wholly or in part, by Force Majeure; and

- (b) will not to that extent give rise to any liability to the Network User for any direct, indirect, consequential or special losses or damages of any kind arising out of, or in any way connected with, that non-performance.

28. NETWORK USER TO ASSIST

28.1. Information

The Network User will provide Envestra (and will cause or procure each Network User's Customer and each Transmission Operator to provide Envestra) with whatever information Envestra might reasonably require from time to time in connection with the Agreement or the Services provided under the Agreement.

28.2. Assistance

The Network User will provide Envestra (and will cause or procure each Network User's Customer and each Transmission Operator to provide Envestra) with whatever assistance or co-operation Envestra might reasonably require from time to time in connection with the Agreement or the Services provided under the Agreement.

28.3. Consultation

Envestra may provide each Transmission Operator with whatever information that Transmission Operator may require to operate the transmission pipelines through which Gas is delivered into the Network to or for the account of the Network User. This information may include (but is not limited to) information to enable that Transmission Operator to balance the Quantity of Gas delivered through each Receipt Point with the Quantity of Gas delivered through each Delivery Point to or for the account of the Network User.

28.4. Survival

This section will survive the termination of the Agreement.

29. USER'S INDEMNITIES

29.1. Network User's Breach

The Network User will indemnify Envestra against all loss, cost, expense or damage which Envestra might suffer or incur as a result of the Network User's breach of the Agreement. This indemnity extends to (but is not limited to) any loss, cost, expense or damage which Envestra suffers or incurs in rectifying or remedying the Network User's breach of the Agreement.

29.2. Network Damage

- (1) The Network User will indemnify Envestra against all loss, cost, expense or damage which Envestra might suffer or incur in relation to any Receipt Point, Metering

Equipment or the operation, administration, maintenance, repair or management of the Network (other than those associated with any curtailment or interruption of the delivery of Gas referred to in clause 29.5) that is caused by the Network User or any Network User's Customer or any of their respective servants, agents, contractors or invitees arising out of:

- (a) any negligence or wrongful act or omission by the Network User or any Network User's Customer or any of their respective servants, agents, contractors or invitees; or
 - (b) any breach of this Agreement by the Network User.
- (2) The Network User's obligation to indemnify Envestra under this clause will be reduced in proportion to the extent that any act or omission of Envestra gives rise to a legal remedy and contributes to the loss or liability.

29.3. Death and Personal Injury

The Network User will indemnify Envestra against all loss, cost, expense or damage which Envestra might suffer or incur as a result of the death or injury of any servant, agent, contractor or invitee of Envestra that is caused by the Network User or any Network User's Customer or any of their respective servants, agents, contractors or invitees.

29.4. Service Indemnity

Subject to clause 29.6, the Network User will indemnify Envestra against all loss, cost, expense or damage which Envestra might suffer as a result of any negligent act or omission on the part of a Network User's Customer in connection with, or in relation to, any Service provided by Envestra to the Network User pursuant to the Agreement (including, in particular (but without limitation), in connection with or in relation to the disconnection or reconnection of any User Delivery Point pursuant to the Agreement).

29.5. Curtailment Indemnity

Subject to clause 29.6, the Network User will indemnify Envestra against all loss, cost, expense or damage which Envestra might suffer or incur in connection with, or in relation to any curtailment or interruption of the delivery of Gas as a result of any negligent or wrongful act or omission on the part of a Network User or a Network User's Customer or any of their respective servants, agents, contractors or invitees.

29.6. Indemnity Qualification

The Network User's obligation to indemnify Envestra under this clause will be reduced in proportion to the extent that any act or omission of Envestra gives rise to a legal remedy and contributes to the loss or liability.

30. USER'S INSURANCE

30.1. Insurance Required

The Network User must obtain and maintain insurance throughout the Term against whatever risks Envestra reasonably specifies from time to time by notice to the Network User, with reputable insurers approved by Envestra (which approval shall not be unreasonably withheld) and on terms approved by Envestra (which approval shall not be unreasonably withheld).

30.2. Benefit of Insurance

If Envestra requires, the Network User must ensure that any insurance the Network User obtains or maintains under the Agreement names Envestra as an additional insured or notes the interest of Envestra, whichever Envestra may require.

30.3. Insurance Information

Whenever reasonably requested by Envestra, the Network User must give Envestra:

- (a) a true and complete copy of the policy for any insurance which the Network User obtains or maintains under the Agreement;
- (b) a certificate of currency for the insurance; and
- (c) whatever other information Envestra requests in relation to that insurance or anything which relates to that insurance.

30.4. Notice of Claims

The Network User must promptly notify Envestra whenever an event occurs which gives rise to, or might give rise to, a claim under any insurance which the Network User maintains under the Agreement.

30.5. Claims Enforcement

Whenever a claim arises, or might have arisen, under any insurance which the Network User maintains under the Agreement, the Network User must take whatever steps Envestra reasonably requires to make and enforce or settle that claim.

30.6. Claims Settlement

If Envestra requires, the Network User must not settle or compromise a claim under any insurance which the Network User maintains under the Agreement, except with the consent of Envestra, which consent shall not be unreasonably withheld.

30.7. Failure to Insure

The Network User must promptly notify Envestra if the Network User fails to obtain or maintain any insurance required under the Agreement. In this case, Envestra may obtain and maintain that insurance on behalf of the Network User at the cost of the Network User.

31. ACCESS TO PREMISES

31.1. Right of Access

Subject to the Agreement, Envestra may from time to time enter any premises or place owned or occupied by the Network User or any Network User's Customer at any reasonable time to operate, inspect, test, read, maintain, repair, remove, replace, alter or improve any Metering Equipment, any Delivery Point, any Receipt Point or any other part of the Network.

31.2. Notice of Entry

Subject to the Agreement, if Envestra intends to enter any premises or place owned or occupied by the Network User or any Network User's Customer, it must give notice of its intention to the owner or occupier of that premises or place as required by law or by the Customer Service Code.

31.3. No Notice

Envestra will have no obligation to give notice pursuant to the previous clause in the event of an emergency or if it wishes to enter the premises or place to undertake a routine meter replacement or reading or to investigate suspected illegal use or interference.

31.4. Network User's Obligation

The Network User must ensure that Envestra and its servants and agents are given safe, reasonable and unhindered access whenever they require to any premises owned or occupied by the Network User or any Network User's Customer for the purposes of:

- (a) performing the Agreement; or
- (b) exercising any right given to Envestra under the Agreement.

31.5. Failure to Provide Access

Envestra will have no liability to the Network User for any failure to perform the Agreement to the extent that Envestra is unable to perform the Agreement because it could not obtain safe, reasonable and unhindered access to any premises or place at the time or times it required.

31.6. Special Meter Reading

If the Network User requests Envestra to read any Metering Equipment pursuant to the Agreement and Envestra is unable to obtain safe, reasonable and unhindered access to that Metering Equipment at the time or times Envestra requires, the Network User will remain responsible to pay Envestra for reading that Metering Equipment even though no reading is actually taken.

31.7. Further Assurances

Whenever requested by Envestra, the Network User will grant Envestra (or cause or procure a Network User's Customer to grant Envestra) an easement, licence or other document which Envestra requires to further assure to Envestra its rights of access under the Agreement in respect of premises and places owned or occupied by the Network User or by any Network User's Customer.

32. CONFIDENTIALITY

32.1. Network User's Obligations

The Network User must keep confidential any information which Envestra requires the Network User to keep confidential.

32.2. No Disclosure

The Network User must not disclose to any third person any of the information it is required to keep confidential ('**Confidential Information**') except where disclosure is permitted pursuant to the Agreement.

32.3. Disclosure to Employees

The Network User may disclose Confidential Information to those of its servants and agents to whom it is necessary to make disclosure. However, the Network User must ensure that any servant or agent to whom Confidential Information is disclosed does not disclose that Confidential Information to any third person to whom the Network User could not make disclosure pursuant to the Agreement.

32.4. Disclosure By Law

The Network User may disclose Confidential Information to the extent that disclosure is required by law.

32.5. Envestra's Obligations

Envestra must comply with any confidentiality obligations imposed on it pursuant to section 4.1 of the Code.

33. DISPUTE RESOLUTION

33.1. Interpretation

In the Agreement, unless the context otherwise requires, the following words will have the following meanings:

'Dispute' means a dispute between Envestra and the Network User in relation to the Agreement (other than an access dispute to which section 6 of the Code applies).

'Independent Expert', in relation to a Dispute, means the person appointed or to be appointed pursuant to the Agreement to resolve that Dispute.

33.2. Referral to Dispute Resolution

If any Dispute arises, either Party may notify the other Party that it wishes to refer that Dispute for resolution in accordance with the Agreement. The notice must specify the issues in dispute.

33.3. Negotiations

If any Party gives notice that it wishes to refer a Dispute for resolution, then the Parties must meet as soon as is reasonably practicable and endeavour to resolve that dispute through negotiation.

33.4. Referral to Expert

If the Parties are unable to resolve a Dispute through negotiation within 10 Business Days after notice was given referring that Dispute for resolution (or within whatever longer period the Parties may agree) then either Party may notify the other that it wishes to refer that Dispute to an Independent Expert.

33.5. Selection of Expert

Within five Business Days after a notice is given under the previous clause, the Parties will endeavour to agree on a person to be appointed as Independent Expert to resolve the Dispute. If they are unable to agree within that period, the Parties will jointly request the Regulator to nominate a person who has appropriate commercial, technical and practical expertise in relevant areas.

33.6. Appointment of Expert

The Parties will jointly appoint the person selected as the Independent Expert on terms agreed between the Parties and that person.

33.7. Expert not Arbitrator

The Independent Expert will act as an expert and not as an arbitrator. The Independent Expert will not be bound by the rules of evidence and will have power to inform himself or herself independently as to the facts to which that Dispute relates and to take such measures as he or she thinks fit to expedite the determination of the Dispute. The Parties must provide the Independent Expert with whatever information or other assistance he or she reasonably requires.

33.8. Basis of Decision

The Independent Expert may resolve the Dispute in whatever manner the Independent Expert thinks fit except that the Independent Expert has no power to make a decision that is inconsistent with, or does not give full effect to, the terms of the Agreement.

33.9. Decision Binding

The Independent Expert must give the Parties a decision in writing as soon as is reasonably practicable. The decision must record the facts as determined by the Independent Expert and the reasons for that decision. The decision will be final and binding on the Parties unless the decision is beyond the power of the Independent Expert.

33.10. Costs of Expert

Envestra and the Network User will each pay one half of the costs of the Independent Expert unless the Independent Expert finds that either of them has acted unreasonably in relation to the Dispute, in which case Envestra and the Network User will pay those costs in such proportions as the Independent Expert thinks fit having regard to the degree to which the Independent Expert considers they acted unreasonably.

33.11. Legal Proceedings

Neither Party may commence legal proceedings in any court in any jurisdiction in respect of any Dispute unless the Independent Expert has made a determination in relation to that Dispute or the Independent Expert has failed to make a determination, in relation to that Dispute, within the time required under the Agreement.

33.12. Interlocutory Relief

The previous clause does not prevent a Party seeking or obtaining an interlocutory injunction from a court of competent jurisdiction.

33.13. Mediation

The Parties may agree to refer a Dispute to mediation, in which case the Parties will select and appoint a person to act as a mediator and, with the assistance of that mediator, the Parties will endeavour to resolve the Dispute through mediation. The mediator's role is to assist the Parties negotiate a resolution of the Dispute. The mediator has no power to make any decision binding on any Party (unless that Party agrees to be bound by that decision).

33.14. Agreement Continues

Each Party is entitled to exercise all of its rights, powers and remedies under the Agreement, and is obliged to perform and discharge all of its obligations and liabilities under the Agreement, notwithstanding the existence of a Dispute or the fact that a Dispute remains unresolved.

33.15. Survival

This section will survive the termination of the Agreement.

34. NOTICES

34.1. Notices

Unless otherwise specified or agreed, notice given by any Party under the Agreement will be given in writing and will be considered as having been given if delivered:

- (a) personally by being left at the address of the Party to whom the notice is given between the hours of 9:00am and 5:00pm on any Business Day;
- (b) by facsimile; or
- (c) by mail with all postage and charges prepaid to either the Network User or Envestra (as the case may be) at the address for notices specified in the Agreement.

Any communications sent by facsimile will be deemed to have been received on the date of dispatch if a transmission report from the sending facsimile machine indicates that the facsimile was sent in its entirety to the facsimile number of the addressee. If a notice is sent by facsimile after 5pm in the place to which the notice is sent, then the notice will be deemed to be received on the next Business Day.

Any communications by mail will be deemed to have been received on the third Business Day following the date of mailing.

Normal operating instructions may be made by telephone, electronic media or facsimile.

34.2. Address for Notices

Unless notified otherwise, the address for notices under the Agreement for the Network User is as specified in the Specific Terms and Conditions and for Envestra is:

Envestra Limited
Level 10, 81 Flinders Street

ADELAIDE SA 5000

Attention: Company Secretary
Telephone: (08) 8227 1500
Fax: (08) 8227 1511

35. ASSIGNMENT

35.1. Assignment by the Network User

The Network User may not transfer, assign or otherwise deal with any of its rights or obligations under the Agreement except in accordance with the Access Arrangement (to which these terms and conditions are annexed).

35.2. Assignment by Envestra

Envestra may assign or transfer its rights or obligations under the Agreement to any person who purchases or acquires the Network or possession and control of the Network.

35.3. Release from Obligations

If Envestra assigns or transfers its rights and obligations under the Agreement, Envestra will be automatically released and discharged from its obligations and liabilities under and in relation to the Agreement to the extent that those obligations and liabilities are assumed by the person who purchases or acquires the Network or possession and control of the Network.

35.4. Deed of Assumption

For the purposes of the previous clause, a person will be taken to have assumed Envestra's obligations and liabilities if that person executes a deed poll in favour of the Network User (whether alone or with any other person or persons) under which that person undertakes to perform and discharge those obligations.

35.5. Encumbrances

Envestra may mortgage, charge or otherwise encumber any of its rights or obligations under the Agreement in favour of any person.

36. AMENDMENT OF AGREEMENT

36.1. Written Amendments

Subject to clause 35.2, the Agreement may only be amended in writing executed by or on behalf of the Network User and Envestra.

36.2. Automatic Amendments

Whenever the terms and conditions set out in Annexure E to the Access Arrangement are amended in accordance with the Code, then (unless otherwise agreed) the Agreement will be amended in the same manner and to the same extent, with effect from the date on which those terms and conditions are amended.

37. MISCELLANEOUS PROVISIONS

37.1. Modification, Waivers and Forbearance

No failure or delay by a party in exercising any right, power or privilege under the Agreement will operate as a waiver thereof nor will any single or partial exercise of any right, power or privilege preclude any further exercise thereof or the exercise of any other right, power or privilege.

No waiver by either party of any one or more defaults by the other party in the performance of the Agreement will operate or be construed as a waiver of any future default or defaults by the same party or the other party, whether of a like or of a different character.

No granting of time or other forbearance or indulgence by a party will in any way release, discharge or otherwise affect the liability of the other party under the Agreement.

37.2. Indemnities

Each indemnity in the Agreement is a continuing indemnity which will survive the termination of the Agreement. It is not necessary to incur a loss, cost, expense or damage before enforcing any indemnity.

37.3. Consents

Where any consent or approval is required from Envestra under the Agreement, Envestra will have no obligation to give that consent or approval except where an obligation to consent or approve is imposed by law. Envestra may make any consent or approval subject to whatever conditions it considers necessary or desirable.

37.4. Governing Law

The Agreement will be construed in accordance with the laws of the State of South Australia. Envestra and the Network User submit to the jurisdiction of the courts of that State and agree to be bound by any decisions of those courts and any courts having jurisdiction to hear appeals from those courts.

37.5. Severability

If any provision of the Agreement is or becomes invalid, illegal or void, then the legality or validity or enforceability of any other provision of the Agreement will not be affected, and the illegal or invalid or void provision will be deemed to be deleted from the Agreement, to the same extent and effect as if it was never incorporated in the Agreement. All other provisions of the Agreement will continue in force, unless the deletion of the provision has substantially altered the commercial efficacy of the Agreement.

37.6. No Benefit to Other Persons

Neither Envestra nor the Network User intends that the provisions of the Agreement are to benefit, or affect contractually, in any way any other person. No person, other than valid assignees, will have any right to enforce the terms of the Agreement against the Network User or Envestra.

37.7. Delegation

Envestra may from time to time appoint an agent or contractor to exercise some or all of Envestra's rights under the Agreement for and on behalf of Envestra (including, but without limitation, this right to delegate). Envestra may also from time to time appoint an agent or contractor to perform some or all of Envestra's obligations under the Agreement for and on behalf of Envestra.

37.8. Enforceability

Each party represents that it has all necessary power and authority to enter into and perform its obligations under the Agreement and that the Agreement is binding on that party and enforceable against it in accordance with its terms.

37.9. No Partnership

Nothing in or arising out of the Agreement will constitute a partnership between the Network User and Envestra or either of them for any purpose.

37.10. Costs and Stamp Duty

Each party will bear its own costs in connection with the preparation, settlement, execution and delivery of the Agreement. The Network User will pay all stamp duty payable in any jurisdiction on or in respect of the Agreement or any document prepared or executed pursuant to the Agreement.

37.11. Further Assurances

The Network User will sign all such documents and do and procure to be done all such acts and things which Envestra considers necessary or desirable from time to time to give full effect to the Agreement.

38. INTERPRETATION

38.1. Interpretation

In interpreting these terms and conditions or the Agreement, unless the context otherwise requires:

- (a) the singular includes the plural and vice versa;
- (b) a reference to an individual or to a person includes a corporation, firm, association, authority, trust, state or government and vice versa;
- (c) a reference to any gender includes a reference to each other gender;
- (d) where any expression is defined in the Agreement, another part of speech or grammatical form of that expression has a corresponding meaning;
- (e) section headings and clause headings are inserted for convenience only and do not affect the interpretation of the Agreement;

- (f) references to ‘dollars’ and ‘\$’ are references to Australian dollars;
- (g) a reference to any legislation or to any section or provision of any legislation includes any statutory modification or re-enactment of that legislation or any statutory provision substituted for it; and includes any subordinate legislation or statutory instruments issued pursuant to that legislation or as it may be modified, re-enacted or substituted;
- (h) a reference to sections, paragraphs, sub-clauses, clauses and schedules is a reference to sections, paragraphs, sub-clauses, clauses and schedules of and to the Agreement;
- (i) a reference to any agreement (including the Agreement) or instrument includes that agreement or instrument as amended, novated, supplemented, varied or replaced from time to time;
- (j) a reference to a party to the Agreement or any other document or arrangement includes that party’s executors, administrators, successors and permitted assigns.
- (k) where two or more parties make a joint covenant, undertaking, representation or warranty, the same will be construed to refer to each and bind each of such parties jointly and each of them severally.

38.2. Terminology

Terminology used to describe units will, unless otherwise agreed, be in accordance with Australian Standard AS1000 ‘The International System of Units (SI System) and Its Application’, the Commonwealth ‘National Measurement Act 1960’ and regulations thereunder, Australian Standard AS1376-1973 ‘Conversion Factors’ and the Australian Gas Association publication ‘Metric Units and Conversion Factors for Use in the Australian Gas Industry’.

39. GOODS AND SERVICES TAX

39.1. GST included in price

Notwithstanding anything to the contrary, any amount payable to Envestra by the Network User in accordance with this section shall form part of the *price* payable by the Network User in respect of a *taxable supply* made to the Network User.

39.2. GST in respect of Taxable Supply

- (a) The Network User must pay Envestra in respect of any *taxable supply* made to the Network User pursuant to or in connection with the Agreement any *GST* which is payable by Envestra or, if Envestra is a member of a *GST group*, by the *representative member* of that *GST group* on the *taxable supply*.
- (b) The *GST* on a *taxable supply* is the amount ascertained by multiplying
 - (i) the amount that would otherwise be payable under this Agreement in respect of the *taxable supply* if the *GST* payable were nil, by
 - (ii) the prevailing rate of *GST* for that taxable supply.
- (c) The Network User must pay Envestra the *GST* on a *taxable supply* at the same time and in the same manner as it is required to pay any other amount to Envestra in respect of that *taxable supply*. If no other amount is payable by the Network User to Envestra in respect of that *taxable supply*, the Network User must pay to Envestra the

GST on that *taxable supply* within 7 days of the receipt by the Network User of a written demand from Envestra or, if Envestra is a member of a *GST group*, from either Envestra or the *representative member* of that *GST group*.

- (d) The Network User must pay the *GST* on a *taxable supply* in full.
- (e) If required by law, Envestra will issue to the Network User a *tax invoice* in respect of a *taxable supply*. A *tax invoice* required by this sub-clause will be issued no later than 30 days after the date that Envestra receives payment for the *GST* on that *taxable supply*. Any *tax invoice* issued may be issued in addition to any other invoice that relates to the *taxable supply*.

39.3. Adjustments

If an *adjustment event* has occurred in respect of a *supply* made pursuant to or in connection with the Agreement, the party that becomes aware of the *adjustment event* agrees to notify the other parties on becoming aware of the *adjustment event*, and the parties agree to take whatever steps are necessary and to make whatever adjustments are required to ensure that any *GST* or additional *GST* on that *supply* or any refund of any *GST* (or part thereof) is paid as soon as is practicable but no later than 14 days after Envestra is satisfied that the *adjustment event* has occurred.

If required by law, Envestra will issue to the Network User an *adjustment note* in respect of a *supply* that is subject to an *adjustment event* covered by paragraph (a) of this sub-clause. An *adjustment note* required by that paragraph will be issued no later than 30 days after the date that Envestra receives payment for the *GST* or the additional *GST* in respect of that *supply* or refunds any *GST* (or part thereof) in respect of that *supply*.

39.4. Definitions

In this section, all italicised terms except for *adjustment event* shall have the same meaning as they have from time to time in the *GST Act*.

In this section, “adjustment event” means an *adjustment event* for the purposes of the *GST Act* and includes any matter or thing that arises out of any error, any decision of any court in relation to the *GST Act* or a related Act, any ruling issued by the Commissioner of Taxation, any audit of the tax affairs of Envestra or any related entity or of the Network User or any related entity or the settlement of any dispute (including a dispute with the Commissioner of Taxation).

In this section, a reference to the *GST Act* is a reference to the A New Tax System (Goods and Services Tax) Act 1999 as that Act is varied in its effect on an event, matter, thing, agreement, transaction or the like by A New Tax System (Goods and Services Tax Transition) Act 1999.

39.5. Reimbursements

If a party reimburses the other party for or in respect of any *creditable acquisition* or *creditable importation* made by that other party, the amount reimbursed shall be net of any *input tax credit* that relates to that *creditable acquisition* or *creditable importation* (as the case may be).

If a party reimburses the other party for or in respect of any *acquisition* that is not a *creditable acquisition* or for an *importation* that is a *taxable importation* but is not a *creditable importation* made by the other party, the amount to be reimbursed shall include any amount

that relates to that *acquisition* or *importation* (as the case may be) which that other party (or, if that other party is a member of a *GST group*, the *representative member* of that *GST group*) is not entitled to claim as an *input tax credit*.

39.6. Insurance

If an insurer settles a claim under an *insurance policy* taken out by Envestra by making a payment or a *supply* or both to the Network User (or a related entity of the Network User) and, as a consequence, Envestra makes a *taxable supply* to the insurer and the insurer does not pay to Envestra (or, if Envestra is a member of a *GST group*, the *representative member* of that *GST group*) any *GST* payable in respect of that *taxable supply*, then the Network User must reimburse Envestra the *GST* payable in respect of that *taxable supply*. A reference in this sub-clause to an insurer is a reference to a person or entity regarded as an insurer for the purposes of Subdivision 78-B of the *GST Act*.

39.7. Damages

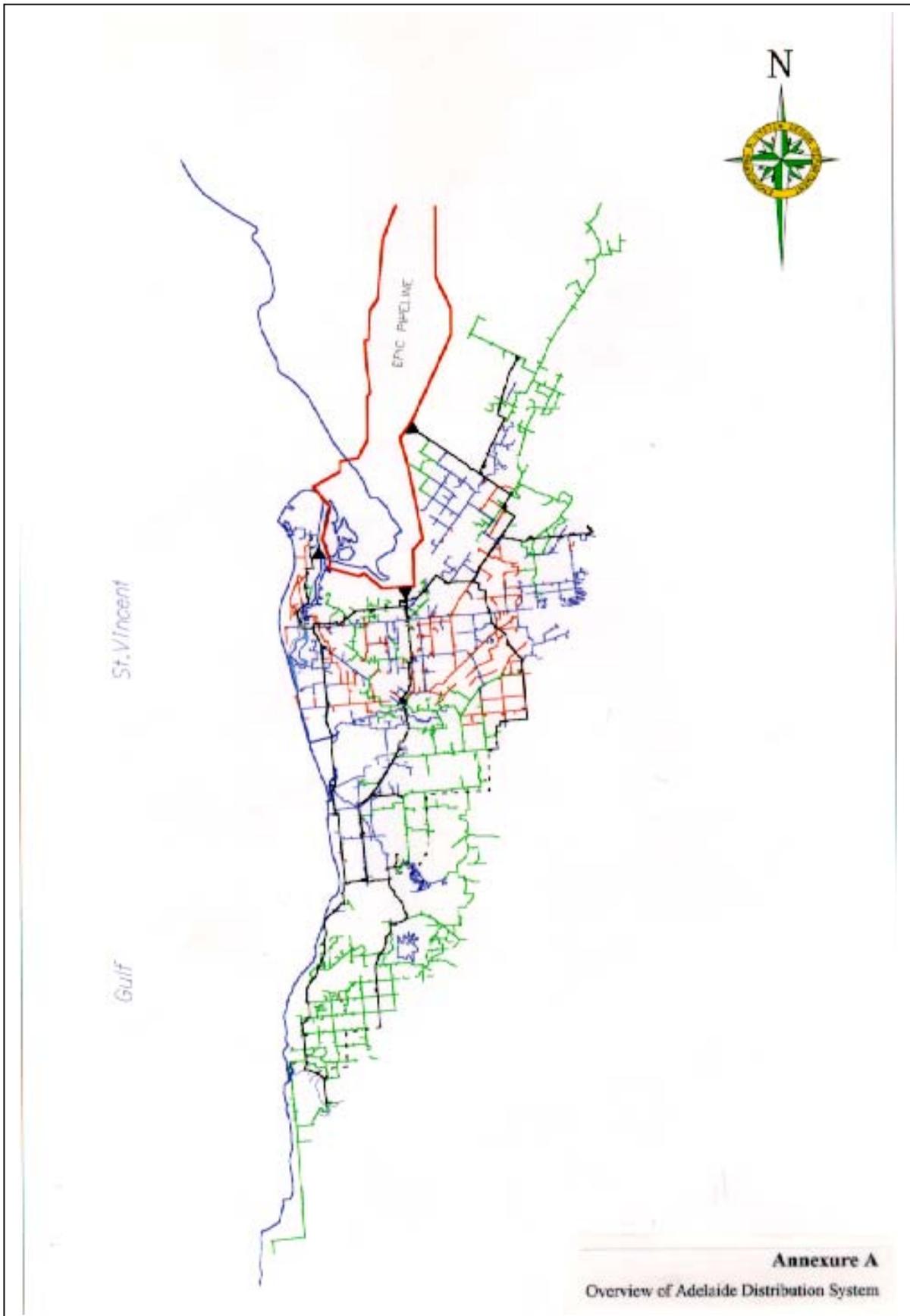
For the purposes of the Agreement, in determining the amount of any damages payable, it is necessary to take account of and include any *GST* that will become payable in respect of any *supply* to be made to the recipient of the damages to replace or repair any loss or damage suffered to the extent to which, in the reasonable opinion of Envestra, it is likely that such *GST* or some part thereof will not give rise to an *input tax credit* to the recipient of the damages.

Access Arrangement

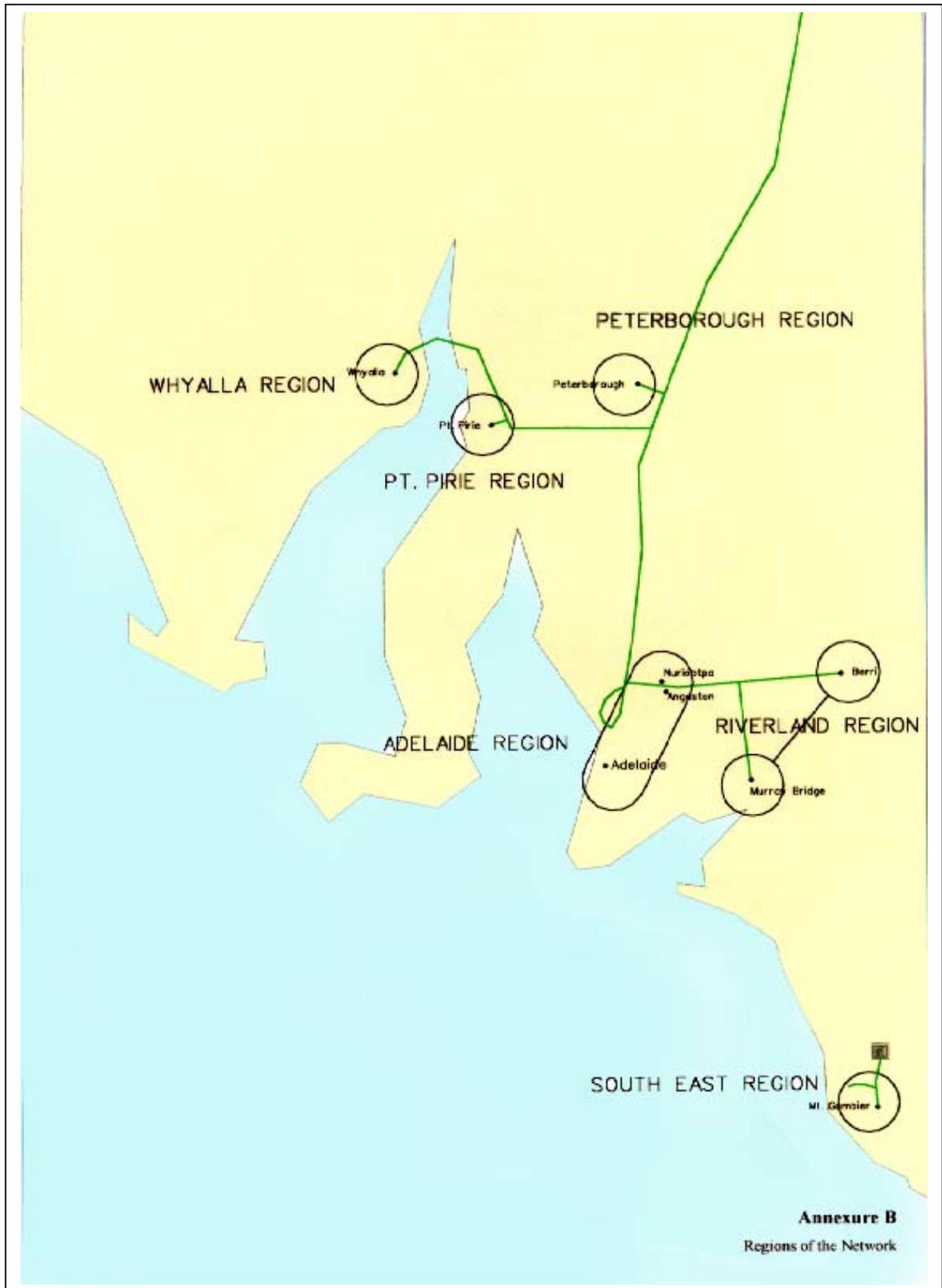
For the
South Australian Distribution System

26 February 2003

Annexure A



Annexure B



Annexure D

