# 2006 REVIEW OF ENVESTRA'S GAS DISTRIBUTION ACCESS ARRANGEMENT

## ISSUES PAPER

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## Request for Submissions

The Essential Services Commission of SA (ESCOSA) invites written submissions from interested parties in relation to the issues raised in this paper. Written comments should be provided by ***Friday, 11 March 2005***. It is highly desirable for an electronic copy of the submission to accompany any written submission.

It is Commission policy to make all submissions publicly available via its website (www.escosa.sa.gov.au), except where a submission either wholly or partly contains confidential or commercially sensitive information provided on a confidential basis and appropriate prior notice has been given.

The Commission may also exercise its discretion not to exhibit any submission based on their length or content (for example containing material that is defamatory, offensive or in breach of any law).

Responses to this paper should be directed to:


**2006 Review of Gas Access Arrangement: Issues Paper**

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# GLOSSARY

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|---|---|
| **ACCESS AGREEMENT** | a contractual agreement negotiated between a network user (or prospective user) and the service provider setting out the terms and conditions upon which the user may be connected to, and provided with haulage services through, a pipeline |
| **ACCESS ARRANGEMENT** | an arrangement, that has been approved by the relevant regulator, for third-party access to a covered pipeline; except where quotations are extracted from the Code, "Access Arrangement" refers to the particular arrangement applying to the South Australian natural gas distribution system and "access arrangement" refers generically to the arrangements applying to covered pipelines |
| **ACCESS ARRANGEMENT INFORMATION** | information provided by a service provider to the relevant regulator to enable network users and prospective users to understand the derivation of the elements in an access arrangement and to form an opinion as to the compliance of the access arrangement with the provisions of the Code |
| **ACCESS ARRANGEMENT PERIOD** | the period from when an access arrangement or revisions to an access arrangement take effect until the next revisions commencement date |
| **COAG** | Council of Australian Governments |
| **THE CODE** | *National Third Party Access Code for Natural Gas Pipeline Systems*, being Schedule 2 to the *Gas Pipelines Access (South Australia) Act 1997*, as amended from time to time |
| **COVERED PIPELINE** | the whole or a particular part of a pipeline or proposed pipeline which is subject to the provisions of the Code, including any extension to, or expansion of the capacity of, that pipeline which is to be treated as part of the covered pipeline in accordance with the extensions/expansions policy contained in the access arrangement |
| **DISTRIBUTION PIPELINE** | pipelines that transport natural gas from city gate stations and reticulate it to an end-user's supply point; generally involves the transportation of gas in smaller volumes and at lower pressures than along the transmission pipelines, where the latter generally involves the transportation of large volumes of natural gas under high pressure from production fields to the city gate, or to large customers along the pipeline |
| **ENVESTRA** | Envestra Limited, owner and operator of the South Australian gas distribution system |
| **FRC** | full retail contestability |
| **GAS ACT** | *Gas Act 1997* (South Australia), as amended from time to time |
| **GAS ACCESS REGIME** | Schedules 1 and 2 to the *Gas Pipelines Access (South Australia) Act 1997* altogether, as amended from time to time; formally referred to as the "Gas Pipelines Access Law" |
| **GJ** | gigajoules, being a unit of energy consumption |
| **MCE** | Ministerial Council on Energy |
| **MDQ** | the maximum daily quantity of gas taken at a particular delivery point |
| **MHQ** | the maximum hourly quantity of gas taken at a particular delivery point |
| **NETWORK SERVICE** | a service provided by means of a pipeline, including:<br>(a) haulage services (such as firm haulage, interruptible haulage, spot haulage and backhaul);<br>(b) the right to interconnect with the pipeline, and<br>(c) services ancillary to the provision of such services,<br>but does not include the production, sale or purchasing of natural gas |

| | |
|---|---|
| **NETWORK USER** | a person who has either a current access agreement or an entitlement to a service as a result of an arbitration |
| **NEW FACILITY** | any capital asset constructed, developed or acquired to enable the service provider to provide network services, including any extension to, or expansion of the capacity of, the associated pipeline |
| **OFF-RAMPS** | a mechanism contained in a reference tariff policy which triggers variations in reference tariffs in the manner specified in that policy on the occurrence of a pre-defined possible but unlikely exogenous event during a regulatory period |
| **PC** | the Productivity Commission |
| **PIPELINE** | a pipe, or system of pipes, for transporting natural gas, and any tanks, reservoirs, machinery or equipment directly attached to the pipe, or system of pipes; may refer to the whole or a particular part of a pipeline or proposed pipeline |
| **PIPELINES ACT** | the *Gas Pipelines Access (South Australia) Act 1997* |
| **TJ** | terajoules, being a unit of energy consumption |
| **REFERENCE SERVICE** | a service which is specified in an access arrangement as likely to be sought by a significant part of the market and, in respect of which, a corresponding tariff ("reference tariff") is specified in the access arrangement |
| **REVISIONS COMMENCEMENT DATE** | the date upon which the next revisions to an access arrangement are intended to commence, in accordance with the Code |
| **REVISIONS SUBMISSION DATE** | the date upon which the service provider must submit to the relevant regulator its proposed revisions to an access arrangement, in accordance with the Code |
| **SAIPAR** | South Australian Independent Pricing and Access Regulator; the relevant regulator under the Code in South Australia until succeeded by the Commission on 1 July 2003 |
| **SAIPAR'S DRAFT DECISION** | released by SAIPAR on 13 April 2000, in which SAIPAR did not approve Envestra's proposed Access Arrangement as submitted and listed the amendments required |
| **SAIPAR'S FINAL DECISION** | released by SAIPAR on 21 December 2001 in response to Envestra's revised application, in which SAIPAR did not approve Envestra's revised Access Arrangement documentation and listed amendments that would be required to the Access Arrangement (and the accompanying Access Arrangement Information) before SAIPAR could state that Envestra's Access Arrangement complied with the requirements of the Code |
| **SAIPAR'S FINAL APPROVAL** | released by SAIPAR on 17 April 2003, in which SAIPAR approved Envestra's modified Access Arrangement (and the accompanying Access Arrangement Information) |
| **SERVICE PROVIDER** | in relation to a pipeline or proposed pipeline, the person who is, or is to be, the owner or operator of that pipeline |
| **UAG** | unaccounted for gas, being gas that is 'lost' or unaccounted for in the network, predominantly due to leakage and metering tolerances |
| **WACC** | the weighted average cost of capital (debt and equity) |

# 1 INTRODUCTION

## *1.1 Background*

The natural gas distribution pipeline system in South Australia owned by Envestra Limited (Envestra) is currently subject to an Access Arrangement that allows third-party users and prospective users to obtain access to certain gas pipeline services.

The South Australian Independent Pricing and Access Regulator (SAIPAR) formally approved the current Access Arrangement on 17 April 2003 following a process that commenced in February 1999, pursuant to the National Third Party Access Code for Natural Gas Pipeline Systems (the Code).

On 1 July 2003, the Essential Services Commission of South Australia (the Commission) succeeded SAIPAR as the local regulator under the *Gas Pipelines Access (South Australia) Act 1997* with respect to the South Australian gas distribution system.

As required under the Code, the current Access Arrangement includes:

- a date by which Envestra must submit revisions to the Access Arrangement together with the applicable Access Arrangement Information (a Revisions Submission Date), namely 1 October 2005;[1] and
- a date by which the next revisions to the Access Arrangement are intended to commence (a Revisions Commencement Date), namely 1 July 2006.

Accordingly, on or before 1 October 2005, Envestra is required to submit to the Commission for approval the revisions it proposes to make to the current Access Arrangement applying to the gas distribution system in South Australia.

To provide a clear framework – and guide – for the conduct of the review of Envestra's proposed Access Arrangement Revisions, the Commission published a paper entitled *Gas Access Arrangement Review: Information Paper* (hereafter Information Paper) in August 2004. That paper included a discussion of the legal framework currently applying to third-party access to the natural gas distribution network in South Australia and the main phases of work to be undertaken in any review of Access Arrangement Revisions proposed by Envestra. This important background material will not be repeated here. Interested parties are directed to the Information Paper.

[1] The Revisions Submission Date originally approved was 1 January 2005. As explained in the Information Paper, in March 2004 the Commission agreed to a proposal by Envestra that the date be deferred to 1 October 2005.

## 1.2 Preliminary consultation process and timetable

For reasons set out in the Information Paper, the Commission has decided to undertake a preliminary consultation process on selected matters *prior to* Envestra formally submitting its proposed Access Arrangement Revisions for approval. The Commission is conducting the preliminary consultation by applying the same standards of public consultation as are required during the formal review stage following receipt of Envestra's proposed Access Arrangement Revisions.

This Issues Paper commences the preliminary consultation process. A three-month period is being allowed for submissions to be made by interested parties on the issues canvassed in this Paper and on any other matters that parties consider appropriate.

After submissions have been received, the Commission will develop and refine its views on particular matters where it considers this necessary and appropriate in light of both the views expressed in submissions received and following the Commission's own further analysis of the requirements of the Code. These preliminary views will be published in a Discussion Paper to be released for public comment no later than two months after the closing date for submissions on the Issues Paper.

A six week period will then be allowed for submissions to be made by interested parties on the Commission's Discussion Paper.

After submissions have been received, the Commission will consider whether it needs to modify its preliminary views on certain matters given the arguments presented in submissions. The Commission will publish its finalised views in a Guidance Paper to be released two months before Envestra is due to submit its proposed Access Arrangement Revisions.

## 1.3 Role of Issues Paper

The preliminary consultation process is to conclude with publication of a Guidance Paper setting out the Commission's views on the types of access arrangement revisions, if any, that the Commission might assess to be *non-compliant* with the Code's requirements, and the reasons for such views. Such guidance is expected to expedite the formal review process (by informing development of Envestra's proposed Access Arrangement Revisions).

To that end, it is necessary to identify the range of *key issues* deserving consideration *in advance* of Envestra finalising its proposed revisions. In this context, the purpose of this Issues Paper is:

- to narrow the range of possible issues requiring the Commission's advance consideration at the subsequent Discussion Paper and Guidance Paper stages of the preliminary consultation process; and
- to gauge initial reactions to some of the main options associated with such issues.

The matters upon which it may be appropriate for the Commission to offer guidance to Envestra prior to submission of proposed Access Arrangement Revisions depend upon the regulator's discretions under the Code.

### 1.3.1 Section 2.46 general approval criteria

The Code (section 2.46) states clearly that the Commission, as the relevant regulator, may approve proposed revisions only if it is satisfied the Access Arrangement as revised would contain the elements and satisfy the principles set out in sections 3.1 to 3.20 of the Code.[2] In this way, the Code distinguishes between:

- the elements to be contained in an access arrangement; and
- the ***principles*** to be satisfied by the arrangements applying to the relevant element.

There seems to be little scope for possible guidance regarding the elements to be included in Envestra's Access Arrangement as section 2.46 also states that:

> *"…The Relevant Regulator must not refuse to approve proposed revisions to the Access Arrangement solely for the reason that the Access Arrangement as revised would not address a matter that sections 3.1 to 3.20 do not require an Access Arrangement to address. …"*

This means that the Commission cannot require Envestra to include elements beyond those specifically nominated in sections 3.1 through 3.20 of the Code.

Any guidance offered by the Commission must therefore focus instead on the nature of the principles to be satisfied with regard to each of the requisite elements of an access arrangement. For some elements, the principles stated in the Code involve interpretation by the Commission. For others, the principles are not explicitly stated and require elaboration. Hence, the Commission's guidance to Envestra when Envestra is developing its proposed Access Arrangements Revisions needs to focus on clarifying where necessary the principles to be satisfied by the arrangements applying to each of the relevant elements.

### 1.3.2 Section 2.24 matters to be taken into account

Section 2.46 of the Code also states that:

> *"…In assessing proposed revisions to the Access Arrangement, the Relevant Regulator:*
>
> *(a) must take into account the factors described in section 2.24; and*
>
> *(b) must take into account the provisions of the Access Arrangement."*

The Commission interprets section 2.46(b) as requiring it to assess any proposed revisions in the context of all other provisions of the Access Arrangement, and not

[2] Section 2.47 also effectively requires the regulator to grandfather any pre-30 March 1995 exclusivity contractual rights.

in isolation and whether or not those other provisions are subject to proposed revision.

The section 2.24 factors referred to in section 2.46(a) are as follows:

> *"(a) the Service Provider's legitimate business interests and investment in the Covered Pipeline;*
>
> *(b) firm and binding contractual obligations of the Service Provider or other persons (or both) already using the Covered Pipeline;*
>
> *(c) the operational and technical requirements necessary for the safe and reliable operation of the Covered Pipeline;*
>
> *(d) the economically efficient operation of the Covered Pipeline;*
>
> *(e) the public interest, including the public interest in having competition in markets (whether or not in Australia);*
>
> *(f) the interests of Users and Prospective Users;*
>
> *(g) any other matters that the Relevant Regulator considers are relevant."*

In clarifying the principles to be satisfied by the arrangements applying to each of the requisite elements of an access arrangement, the Commission must taken into consideration the impact of alternative interpretation upon the above factors. These factors, in turn, give rise to a range of issues that might deserve guidance by the Commission.

## *1.4 Outline of Issues Paper*

The structure of this Issues Paper broadly corresponds with the sequence of elements required of an access arrangement described in sections 3.1 to 3.20 of the Code.

Chapter 2 deals with possible issues associated with the ***Services Policy*** element required under sections 3.1 and 3.2 of the Code.

Chapters 3 to 8 deal with the ***Reference Tariff*** and ***Reference Tariff Policy*** elements. In particular:

- Chapter 3 canvasses issues associated with *approval criteria* suggested by the Code's pricing principles;
- Chapter 4 examines possible issues arising in implementing the components of the Code's building blocks approach to calculating *allowable revenue*;
- Chapter 5 examines possible *price structure* issues;
- Chapter 6 deals with possible issues associated with the *annual tariff variation method* required under the Code;
- Chapter 7 looks at matters arising from the *incentive mechanism* provisions of the Code; and
- Chapter 8 deals with possible *information disclosure* issues.

Chapter 9 deals with possible issues associated with the ***Terms and Conditions*** element of an access arrangement required under section 3.6 of the Code.

Chapter 10 deals with the related elements of ***Capacity Management Policy*** and ***Trading Policy***.

Chapter 11 deals the ***Queuing Policy*** element of an access arrangement.

Chapter 12 deals with the method for determining whether or not a pipeline extension or capacity expansion is to be treated as part of the covered pipeline for all purposes under the Code; that is, the ***Extensions/Expansions Policy*** element.

Chapter 13 canvasses issues associated with the duration of the Access Arrangement, and especially the ***Revisions Submission Date*** and a ***Revisions Commencement Date*** elements as required under sections 3.17 to 3.20 of the Code.

## *1.5 Some general issues*

Throughout the following chapters of this Issues Paper, the Commission has identified, and sought comments on, particular issues that it considers may be important. In doing so, the Commission's intention is not to confine the comments of interested parties to these issues only. In addition, the Commission encourages interested parties to indicate whether there are any other issues of importance arising from experience with the present Access Arrangement.

***Issue 1***

***Are there any important issues arising from experience with the current Access Arrangement that are overlooked by the particular issues raised by the Commission throughout the remainder of this Issues Paper?***

There may also be a desire by some to see a greater degree of uniformity with the access arrangements applying in different jurisdictions. Envestra's distribution systems in Queensland and Victoria (including Albury) are subject to access arrangements that have been approved by the Queensland Competition Authority and the Essential Services Commission of Victoria, the respective local regulators.

***Issue 2***

***Are there any features of Envestra's approved access arrangements in Victoria and Queensland (or in other access arrangements approved elsewhere) that should be considered for inclusion in Envestra's South Australian Access Arrangement?***

# 2 SERVICES POLICY

This chapter canvasses issues that may deserve the Commission's guidance associated with the Services Policy element of an access arrangement.

## *2.1 Requirements of the Code*

The Code (section 3.1) requires an access arrangement to include a policy on the service or services to be offered by the operator of the covered pipeline (a Services Policy).

A service is defined under the Code (section 10.8) to mean:

> *"(a) a service provided by means of a Covered Pipeline … including (without limitation):*
>
> *(i) haulage services (such as firm haulage, interruptible haulage, spot haulage and backhaul); and*
>
> *(ii) the right to interconnect with the Covered Pipeline, and*
>
> *(b) services ancillary to the provision of such services,*
>
> *but does not include the production, sale or purchasing of Natural Gas."*

The Code (section 3.2(a)) requires the Services Policy element of an access arrangement to comply with the principle that it is to include a description of one or more of the services that are likely to be sought by a significant part of the market or which, in the regulator's opinion, should be included in that policy.

## *2.2 Relevant features of the current Access Arrangement*

Envestra's Services Policy, as currently approved, is set out in section 2 of the current Access Arrangement.

### 2.2.1 Reference services

The Services Policy includes a description of the network services available to network users and prospective network users. The network services fall into three categories:

- haulage reference services;
- ancillary reference services; and
- negotiated services.

***Haulage reference services***

The Access Arrangement (section 2.2) provides for three ***haulage reference services***, namely the firm forward haulage of gas to:

- a domestic delivery point (domestic haulage service);
- a demand delivery point for a minimum period of one year (demand haulage service); and

- a commercial delivery point (commercial haulage service).

Each of these services also includes:

- odorisation 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 consists of accepting gas into the network at a receipt point and delivering an equivalent quantity of gas to a delivery point in the network after allowance has been made for unaccounted for gas (UAG). UAG is gas that is 'lost' or unaccounted for in the network, predominantly due to leakage and metering tolerances.[3]

Section 2.2 of the Access Arrangement defines a delivery point at a given time, as determined by Envestra, to be:

- a ***domestic*** delivery point if the gas delivered through that delivery point is used primarily (i.e., 50% or more) for domestic purposes;
- a ***demand*** delivery point where:
  - that delivery point is not a domestic delivery point; and
  - any of the following apply:
    - the quantity of gas delivered through that delivery point during the most recent metering *year* is equal to or greater than 10 terajoules (TJ); or
    - the quantity of gas delivered or deemed to have been delivered through that delivery point on any network *day* during the most recent cycle is equal to or greater than 50 gigajoules (GJ); and
- a ***commercial*** delivery point where the delivery point is not a demand delivery point or domestic delivery point.

At the commencement of each access agreement in respect of a demand delivery point, the network user is required to nominate a maximum daily quantity (MDQ)

[3] For the first Access Arrangement Period, the level of UAG was initially determined by Envestra for 12-month periods ending 31 March each year (UAG Year). 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.

As mandated in SAIPAR's Final Decision, 80% of UAG was 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, i.e., 50% customer-based and 50% load-based.

and a maximum hourly quantity (MHQ) for that delivery point. 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 is deemed to be the average daily quantity of gas delivered through that delivery point during that cycle, multiplied by a factor of 1.3.[4]

### ***Ancillary reference services***

Section 2.3 of the Access Arrangement provides for a number of additional network services which may be requested by a significant part of the market in addition to the haulage reference services. These network services are described as ***ancillary reference services***, and comprise the following:

- special meter reading service – meter reading at the request of the network user additional to the normally scheduled meter reading associated with the haulage reference service;
- inlet disconnection service – the disconnection of pipework that joins a domestic delivery point to the network (i.e., where the inlet service joins the gas mains); and
- inlet reconnection service – the reconnection to the network of pipework that joins a domestic delivery point to the network, which Envestra has previously disconnected from the network.

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 are provided by Envestra as a negotiated service.

### ***Negotiated services***

In addition to the reference services, Envestra makes available other network services on the basis of commercially negotiated terms and conditions (including tariffs). The services are to be provided subject to Envestra determining their provision is reasonable, both technically and practically.

An interruptible haulage service is an example of a negotiated service.

SAIPAR 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, i.e., connections off a transmission pipeline that serve individual consumers. Due to the unique nature and location of the services

[4] The current Access Arrangement provides for all demand delivery points consuming greater than 10 TJ per annum to have telemetry (interval metering) installed.

supplied to each such delivery point (e.g., the service may involve odorisation and no haulage), these services are negotiated services, with tariffs commensurate with the cost of providing the individual service.

### 2.2.2 Service standards and quality

The Access Arrangement (section 2.5) provides that:

> *"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."*

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 1,000 customers.

To this extent, Envestra undertakes to provide network services in accordance with certain minimum service standards and quality levels, unless otherwise negotiated.

## *2.3 Possible issues and options*

By its nature, a Services Policy focuses on the obligations of a service provider to network users or prospective users. [The obligations on network users (rather than the service provider) are set out in the Terms and Conditions element of an access policy, which is discussed separately at chapter 9 below.]

### 2.3.1 Types of reference services

The Code (section 3.2(a)(ii)) gives the Commission discretion to require the Access Arrangement to include as a reference service any service which, *in the Commission's opinion*, should be included in the Services Policy. The review provides the opportunity to reconsider appropriate categories of reference services, and redefine the specific services that should be included in each.

For all customers, the existing reference services are defined as the transportation of gas (including the provision of the service pipe and meter) and certain administrative functions associated with this service. As such, the approved reference services bundle together both:

- haulage services (such as firm haulage, interruptible haulage, spot haulage and backhaul); and
- the right to interconnect with the covered pipeline.

At issue is whether the review process presents an opportunity to unbundled these services, especially for demand customers. Also at issue is whether the review process presents an opportunity to align references services and service obligations with those applying in other jurisdictions.

***Issue 3***

***Are reference services as defined in the current Access Arrangement comprehensive of the sorts of services required by most network users and potential users? Is there scope to unbundle haulage services into their connection and use-of-system components, especially for demand customers? To what extent should reference services and service obligations be aligned with those applying in other jurisdictions?***

### 2.3.2 Description of standards of services

The current Access Arrangement (section 2.5) effectively establishes minimum standards of service in relation to the various reference services to be those established by Envestra's Distribution Licence or any applicable law.

The service quality currently expected by network users for a particular reference service – or the levels of service quality that are consistent with the basis of pricing for the reference service – may be greater than any minimum levels of service quality prescribed in licences.

At issue is whether the service provider is obliged under the Code to more explicitly state the standards of service applying to each reference service. This is a possible interpretation of the 'description' requirement stated in section 3.2(a) of the Code. This would see the Access Arrangement specifying both the types of services and, for each such service, the standards of service to be expected (e.g., reliability, safety, quality).

In this regard, it is interesting to note that the Productivity Commission (PC), in its recent review of the Code (***PC review***), expressed the view that regulators do not appear to have powers under the Code to enforce particular service quality standards, and that service quality is more usually monitored under licence provisions.[5]

While the Code places a broad requirement on the service provider to specify reasonable terms and conditions on which services are provided, the Commission acknowledges that it does not explicitly state what the nature of the service standards should be or how they should be specified. For instance, there are a number of possible indicators that could be adopted to measure service performance, including the frequency and duration of outages and whether outages are planned or unplanned.

Nevertheless, the specification of service standards and terms and conditions for each reference service must be sufficiently detailed and complete if a network user

5 Productivity Commission, *Review of the Gas Access Regime*, Report No. 31, Canberra, June 2004, p. 313.

or prospective user is to determine the value represented by the reference service at the reference tariff.

Pre-determined, clear and unambiguous service requirements for the next Access Arrangement Period would also provide a point of reference for the Commission to assess Envestra's proposed reference tariffs. The Commission needs to have regard to the efficient costs required to meet specific levels of gas reliability, quality and safety *as set by the service provider itself*. Without the monitoring of service levels or quality standards, cost savings associated with reference tariffs could be made by service levels being cut rather than by increasing efficiency.

***Issue 4***

***Should the Services Policy be approved only if it includes a specification by Envestra, additional to that set out in licences and other regulatory instruments, of the levels of service (e.g., reliability, quality) to be delivered as well as of the broad nature (type) of services in question?***

# 3 REFERENCE TARIFFS: APPROVAL CRITERIA

The Code (section 3.3) requires an access arrangement to include a Reference Tariff for each network service that is likely to be sought by a significant part of the market.

In addition, the Code (section 3.5) requires 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).

Sections 3.4 and 3.5 of the Code require both the Reference Tariff and the Reference Tariff Policy elements of an access arrangement to comply with the Reference Tariff Principles described in section 8 of the Code.

This chapter examines possible issues arising from the tariff approval criteria in section 8. Other aspects of Reference Tariff and Reference Tariff Policy are dealt with in following chapters.

## *3.1 Requirements of the Code*

Tariff approval criteria are contained at several points in section 8 of the Code.

### 3.1.1 Section 8.1 criteria

The Code (section 8.1) contains the 'general principles' to be observed by the Reference Tariff and Reference Tariff Policy elements of an access arrangement, namely that a Reference Tariff and Reference Tariff Policy should be designed with a view to achieving the following objectives:

> *"(a) 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 that Service;*
>
> *(b) replicating the outcome of a competitive market;*
>
> *(c) ensuring the safe and reliable operation of the Pipeline;*
>
> *(d) not distorting investment decisions in Pipeline transportation systems or in upstream and downstream industries;*
>
> *(e) efficiency in the level and structure of the Reference Tariff; and*
>
> *(f) providing an incentive to the Service Provider to reduce costs and to develop the market for Reference and other Services."*

Section 8.1 concludes by stating that:

> *"To the extent that any of these objectives conflict in their application to a particular Reference Tariff determination, the Relevant Regulator may determine the manner in which they can best be reconciled or which of them should prevail." (underlining added for emphasis)*

### 3.1.2 Objects of the Code

The introduction to the Code states that the objectives of the Code are to establish a framework for third-party access to gas pipelines that:

> *"(a) facilitates the development and operation of a national market for natural gas; and*
>
> *(b) prevents abuse of monopoly power; and*
>
> *(c) promotes a competitive market for natural gas in which customers may choose suppliers, including producers, retailers and traders; and*
>
> *(d) provides rights of access to natural gas pipelines on conditions that are fair and reasonable for both Service Providers and Users; and*
>
> *(e) provides for resolution of disputes.*
>
> *…*
>
> *The aim of the Code is to provide sufficient prescription so as to reduce substantially the number of likely arbitrations, while at the same time incorporating enough flexibility for the parties to negotiate contracts within an appropriate framework. The Code has also been designed to provide a clear national access regime, with consistency between different jurisdictions."*

Sections 10.4 and 10.5 of the Code note that the introduction to the Code (which contains this statement of the Code's objectives) does not form part of the Code but that in certain circumstances regard may be had to it in interpreting the Code.[6]

## *3.2 Possible issues and options*

Recent reviews of the Code have sought to clarify the powers conferred on a regulator under the Code when approving the Reference Tariff and Reference Tariff Policy elements of an access arrangement.

### 3.2.1 Possible changes to section 8.1(a) criterion

In June 2003, the Productivity Commission (PC) was asked to review the Gas Access Regime with the primary aim of examining the extent to which the regime balances the interests of relevant parties, provides a framework that enables efficient investment in new pipelines and network infrastructure and facilitates the development of competition in the natural gas market.[7]

In its final report (made public by the Commonwealth Government on 10 August 2004),[8] the PC canvassed a range of measures aimed at both:

- reducing the likelihood of *regulatory error* (in chapter 7); and

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6 This also applies to the overview in italics at the beginning of each section of the Code.

7 The PC review was undertaken within the framework of the national access regime (Part IIIA of the *Trade Practices Act 1974*), clause 6 of the CPA and the National Energy Policy Framework agreed to by the Council of Australian Government in June 2001. The PC was also required to take into consideration the Commonwealth's response to the PC's review of the national access regime and outcomes arising from the COAG Energy Market Review (Parer report).

8 Productivity Commission, *Review of the Gas Access Regime*, Report No. 31, Canberra, June 2004.

- limiting the investment-distorting effects of *regulatory risk* and asymmetric truncation (in chapter 9).

The Commonwealth Government has decided that the Ministerial Council on Energy (MCE), which comprises Commonwealth, State and Territory Ministers with responsibility for energy policy, should develop the response to the PC's recommendations.

While the changes to be made to the Code by the MCE could depart from the PC's recommendations in some (as yet unknown) respects, among those recommendations were some that were consequential to changes which the Commonwealth Government has decided to make to Part IIIA of the *Trade Practices Act*, which includes incorporating certain pricing principles into Part IIIA.[9] In particular, the PC review concluded that the pricing principles which the Commonwealth has decided to incorporate into Part IIIA should provide the basis for the pricing principles used in the Code.

Accordingly, in order to provide more specific and operational guidance for setting reference tariffs under the Code, and ensure consistency with the national access regime, the PC recommended (recommendation 7.1) that section 8.1(a) of the Code in effect be replaced with the following:

> *"A reference tariff or reference tariff policy should be designed with regard to the overarching objects clause, s.2.24 and the following principles:*
>
> *(a) that regulated access prices should:*
>
> *(i) be set so as to generate expected revenue for a reference service or services that is at least sufficient to meet the efficient costs of providing access to the reference service or services*
>
> *(ii) include a return on investment commensurate with the regulatory and commercial risks involved " (PC review, p. 262)*

***Issue 5***

***How, in practice, might application of the section 8.1(a) criterion differ from that of the Commonwealth's final amendments to the pricing principles provision in Part IIIA of the* Trade Practices Act*? Are such differences considered significant?***

[9] In February 2004, the Commonwealth Government announced that it would introduce into Federal Parliament the legislative changes that give effect to its final response to the Productivity Commission's final report on the Review of the National Access Regime. Following this, the Commonwealth Government indicated it would consult further with jurisdictions to take forward appropriate changes to Clause 6 of the Competition Principles Agreement 1995 (CPA), to which all State and Territory governments are participants.

### 3.2.2 Interpretation of section 8.1(b) criterion

The August 2002 judgment by the Supreme Court of Western Australia regarding the Dampier–Bunbury pipeline (Epic decision[10]) has provided important guidance on section 8.1(b).

In particular, the Epic decision observed that the objective of section 8.1(b) seems to necessitate the application of economic methods and theory, albeit to replicate the outcome of a ***workably competitive*** market, because the achievement of *perfect competition* is, in fact, not possible. In simple terms, 'workable competition' indicates a market in which no firm has a substantial degree of market power. The Epic decision argued that expert evidence and written material tendered in evidence suggested that a workably competitive market may well tolerate a degree of market power, even over a prolonged period. The underlying theory and expectation of economists is that, with workable competition, market forces will increase efficiency beyond what could be achieved in a non-competitive market, although not necessarily achieving theoretically ideal efficiency.

Interestingly, the PC review subsequently recommended that section 8.1(b) be deleted. The PC concluded that 'replicating the outcome of a competitive market' is an unachievable objective for setting reference tariffs.

> *"This objective suggests that it is possible to determine the tariff that would be the outcome of a competitive market and then replicate it. ... [A]lthough regulators can aim to estimate a competitive market's efficient prices, it is unlikely that the estimated prices will actually reflect efficient prices. This is partly a result of the high probability of regulatory error, but is also a result of the fact that competitive markets are dynamic in nature... If the competitive market outcome cannot be estimated then it follows it cannot be replicated." (PC review, p. 260)*

Moreover, the PC argued that seeking to apply the concept of workable competition does not provide a practical approach to this problem.

> *"... there are a wide range of interpretations of a competitive market — such as perfect and workable competition — each delivering a different outcome. The Commission considers that interpreting a competitive market as workable does not make it easier to meet the requirements of s.8.1(b) of the existing Gas Code. In fact, the workable competition concept is arguably less well defined and harder to operationalise than other interpretations and might add to regulatory uncertainty." (PC review, p. 261)*

An issue facing the Commission, and on which guidance could be sought by Envestra, is the interpretation which the Commission intends to place on section 8.1(b) in light of both the judicial guidance provided by the Epic decision and the views expressed by the PC.

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10 *Re Dr Ken Michael AM; ex parte Epic Energy (WA) Nominees Pty Ltd & Anor [2002] WASCA 231.*

***Issue 6***

***What features of 'workable competition' are of most relevance to the gas distribution industry in South Australia when the market outcomes of an access arrangement are being assessed in terms of the section 8.1(b) criterion?***

### 3.2.3 Possible limits on the role of the regulator

Recent judgments by the Australian Competition Tribunal have also clarified the powers conferred on a regulator under the Code when approving the Reference Tariff and Reference Tariff Policy elements of an access arrangement.

In particular, in its *GasNet* judgment,[11] the Tribunal found the role of the regulator to be strictly limited when determining whether a proposed access arrangement complies with the reference tariff principles described in section 8 The Tribunal stated that, where there are no conflicts or tensions between the principles described in section 8, if a proposed access arrangement falls within a range of choice reasonably open and consistent with the reference tariff principles described in section 8, it is beyond the power of the regulator not to approve the proposed access arrangement simply because the regulator prefers a different access arrangement which it believes would better achieve the regulator's understanding of the statutory objectives of the law. The regulator cannot make a decision based on what it thinks is best.

Envestra has characterised such clarification in the following terms:

> *"The Code operates under a propose-accept/reject model, where the Service Provider proposes a method/approach/value and the Regulator assesses the proposal against the relevant provisions of the Code. The Regulator then either accepts the Service Provider's proposal if it is compliant with the Code, or rejects it if non-compliant. It is not within the Regulator's discretion to impose their own view upon a Service Provider [where alternative methods/approaches/values are each compliant with the Code]." (letter to the Commission, 2 July 2004)*

Likewise, as the Commission itself foreshadowed in the Information Paper:

> *"The Commission acknowledges that there will be little purpose served by arguments as to which approaches – from among those likely to be compliant with the Code – might be most effective in achieving the objectives of the Code. Under the Code, Envestra is free to exercise its own discretion on such matters." (Information Paper, p. 36)*

But matters might not be this straight-forward.

Section 8.1 clearly states that, where any of the objectives nominated in that section conflict in their application to a particular Reference Tariff or Reference Tariff Policy, the manner in which they *can best be reconciled* or which of them

[11] Australian Competition Tribunal, *Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6 (23 December 2003).*

should prevail is a matter for the regulator – not the service provider – to determine. Hence, where it can be established that the Commission's assessment of a particular feature of a Reference Tariff and Reference Tariff Policy necessarily differs depending upon which of the section 8 criteria are applied, the Commission must attempt to resolve such a conflict in a manner that best achieves the statutory objectives of the Code. In the Epic decision, the Court held that a regulator should exercise this discretion by taking into account the factors set out in section 2.24(a)-(g).[12]

Hence, where there are conflicts or tensions between any of the section 8.1 criteria in their application to a particular Reference Tariff determination, the regulator may approve an alternate access arrangement over the access arrangement proposed by the service provider on the grounds that the regulator believes the alternate would *better achieve* the regulator's understanding of the statutory objectives of the law than the access arrangement proposed by the service provider.

Hence, a key consideration regarding the scope of the regulator's discretion is whether or not there are conflicts or tensions between any of the objectives nominated in section 8.1 of the Code in their application to a particular Reference Tariff determination.

Section 8.6 is also instructive, as it recognises that the methods for calculating allowable revenue under the Code may provide a range of feasible outcomes and that, in narrowing this range, the regulator is permitted to have regard to various financial and performance indicators:

> *"In view of the manner in which the Rate of Return, Capital Base, Depreciation Schedule and Non Capital Costs may be determined (in each case involving various discretions), it is possible that a range of values may be attributed to the Total Revenue described in section 8.4. In order to determine an appropriate value within this range the Relevant Regulator may have regard to any financial and operational performance indicators it considers relevant in order to determine the level of costs within the range of feasible outcomes under section 8.4 that is most consistent with the objectives contained in section 8.1." (underlining added for emphasis)*

Section 8.6 clearly states, therefore, that where various discretions (including those exercised by the service provider) involved in determining the rate of return, capital base, depreciation schedule or non-capital costs result in a range of values for allowable revenue, the level of costs within the range of feasible outcomes that is *most consistent* with the objectives contained in section 8.1 of the Code is a matter for the regulator – not the service provider – to determine.

The PC review affirmed that section 8.6 may empower a regulator to have regard to any financial and operational performance indicators considered relevant in order to determine the level of costs within the range of feasible outcomes that is most consistent with the section 8.1 criteria.

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12 *Re Dr Ken Michael AM; ex parte Epic Energy (WA) Nominees Pty Ltd & Anor [2002] WASCA 231*, para 85.

In fact, the PC recommended that section 8.6 be revised to ensure regulators understand that a range of plausible values could exist for allowable revenue, given the uncertainty about the many technical economic issues involved, and to make it more explicit that service providers propose the relevant values and regulators assess whether those values are within a plausible range.

Hence, it is the PC's view that section 8.6 would need to be amended before the regulator's role is limited to assessing whether the service provider's:

(a) proposed method has a plausible conceptual basis; and

(b) values used in applying the method lie within the range of plausible estimates,

and the regulator is necessarily obliged to approve the proposed method were (a) satisfied or to approve the values used in applying a method were (b) satisfied.

None of this is to dispute that the Commission must carefully consider:

- the tensions and conflicts between the various section 8.1 objectives; and
- the range of feasible outcomes or arrangements between alternative pricing methodologies that might be consistent with the stated principles.

What is by no means as sure is the extent to which the Commission is – or should be – constrained from deciding not to approve a proposed Access Arrangement Revision with respect to a Reference Tariff or Reference Tariff Policy element because the Commission believes a different access arrangement would better achieve its understanding of the statutory objectives of the law.

### 3.2.4 Choosing values within the plausible range

A regulator's concern about information asymmetry might lead it to err in a way that disadvantages a service provider, by opting for an estimate or parameter value at the low end of the feasible range. Likewise, a service provider's own interests might see it err in a way that disadvantages network users or prospective users, by opting for an estimate or parameter value at the high end of the feasible range.

The Australian Competition Tribunal has reviewed a decision made by the ACCC, in assessing the capital base of the Moomba–Adelaide pipeline, to use a valuation based on the lowest cost of line pipe quoted by one of its consultants rather than accept the valuation submitted by the service provider (Epic Energy). The Tribunal found that, in this case, the ACCC had made an error:[13]

> *"In taking the approach it did, the ACCC exposed Epic to an asymmetric risk whereby the likelihood of underestimating the true actual line pipe cost was much greater than that of overestimating it. To take the lowest price from one source of supply, runs the risk of serious commercial understatement of the expected cost of line pipe"*

[13] Australian Competition Tribunal, *Application by Epic Energy South Australia Pty Ltd (2003) ACompT 5*, para 94.

This decision suggests that a regulator may be justified in rejecting an estimate or parameter values proposed by a service provider where it can be shown that, while falling within a feasible range, the estimate exposes network users or prospective users to an asymmetric risk whereby the likelihood of the proposed value overestimating the true value is greater than that of underestimating it.

***Issue 7***

***If tariffs – or tariff-determining parameters – proposed by Envestra fall within a range of plausible values, should the Commission give consideration to not approving those tariffs (or parameters) if it believes that the underlying estimate or parameter values expose either the service provider or network users to an asymmetric risk? Are there any circumstances where the midpoint of the plausible range may not necessarily contribute to the avoidance of asymmetric risk?***

# 4 REFERENCE TARIFFS: TOTAL REVENUE

Among the factors about which the Commission must be satisfied in determining whether to approve a Reference Tariff and Reference Tariff Policy is that the revenue to be generated from the sales (or forecast sales) of all services over the access arrangement period (Total Revenue) should be established consistently with the principles and according to one of the methodologies contained in section 8 (section 8.2(a)).

This chapter examines the issues associated with that part of the Reference Tariff and Reference Tariff Policy elements that involves the determination of the Total Revenue requirement.

## *4.1 Determining total revenue*

### 4.1.1 Requirements of the Code

The Code involves a form of cost-based price regulation using what is known as the ***'building block' approach***. In particular, a target is calculated for expected annual revenue by building up the cost base from its individual components.

This requires, among other things, forecasts of future capital expenditure, operating costs and demand. The expected Total Revenue target is then used to set regulated prices – termed reference tariffs – for individual reference services (services specified in an access arrangement with an associated reference tariff).

The Code (section 8.4) requires that the Total Revenue (a portion of which will be recovered from sales of reference services) be calculated according to one of three ('building block' approach) methodologies:

- a ***Cost of Service*** methodology: where Total Revenue is set to recover total cost of providing all network services, some of which may be the forecast of such costs;
- an ***IRR*** methodology: where Total Revenue is set to provide an acceptable internal rate of return (IRR) for the covered pipeline on the basis of forecast costs and sales; and
- a ***NPV*** methodology: where Total Revenue is set to deliver a net present value (NPV) for the covered pipeline (on the basis of forecast costs and sales) equal to zero, using an acceptable discount rate.

The overview to section 8 of the Code acknowledges that, while these methodologies are different ways of assessing Total Revenue, their outcomes should be consistent.

The Code (section 8.4) states that the cost of service methodology must be calculated on the basis of:

*"(a) a return (Rate of Return) on the value of the capital assets that form the Covered Pipeline or are otherwise used to provide Services (Capital Base);*

*(b) depreciation of the Capital Base (Depreciation); and*

*(c) the operating, maintenance and other non capital costs incurred in providing all Services (Non Capital Costs)."*

### 4.1.2 Relevant features of the current Access Arrangement

Envestra adopted a 'cost of service' approach in the calculation of Total Revenue *for haulage reference services*, i.e., 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 Total Revenue requirement for haulage reference services during the first Access Arrangement Period was as follows:

| $m | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 |
|---|---|---|---|---|---|
| Total Revenue Requirement | 105.49 | 109.18 | 111.73 | 115.44 | 118.91 |

## *4.2 Capital base at 1 July 2006*

### 4.2.1 Requirements of the Code

For the cost of service methodology, the Code (section 8.9) requires the capital base at the commencement of each access arrangement period after the first (the commencing capital base),[14] to be determined as:

*"(a) the Capital Base at the start of the immediately preceding Access Arrangement Period; plus*

*(b) subject to sections 8.16(b) and sections 8.20 to 8.22, the New Facilities Investment or Recoverable Portion (whichever is relevant) in the immediately preceding Access Arrangement Period; less*

*(c) Depreciation for the immediately preceding Access Arrangement Period; less*

*(d) Redundant Capital identified prior to the commencement of that Access Arrangement Period,*

*…subject, irrespective of which methodology is applied, to such adjustment for inflation (if any) as is appropriate given the approach to inflation adopted pursuant to section 8.5A."*

***New Facilities Investment*** is defined under the Code (section 8.15) as the additional capital costs incurred in constructing, developing or acquiring new facilities for the purpose of providing network services, where ***New Facilities*** are defined (section 10.8) as any extension to, or expansion of the capacity of, a covered pipeline which is to be treated as part of the covered pipeline.

[14] The term 'initial capital base' is reserved for the capital base at the commencement of the first access arrangement.

Section 8.16(a) of the Code provides that the capital base may be increased by the amount of the (actual or forecast) New Facilities Investment in the immediately preceding access arrangement period only if:

> *"(i) that amount does not exceed the amount that would be invested by a prudent Service Provider acting efficiently, in accordance with accepted good industry practice, and to achieve the lowest sustainable cost of providing Services; and*
>
> *(ii) one of the following conditions is satisfied:*
>
> > *(A) the Anticipated Incremental Revenue generated by the New Facility exceeds the New Facilities Investment; or*
> >
> > *(B) the Service Provider and/or Users satisfy the Relevant Regulator that the New Facility has system wide benefits that, in the Relevant Regulator's opinion, justify the approval of a higher Reference Tariff for all Users; or*
> >
> > *(C) the New Facility is necessary to maintain the safety, integrity or Contracted Capacity of Services."*

For the purposes of calculating the commencing capital base, sections 8.16(a) and (b) are qualified by sections 8.21 and 8.22 as follows:

- if the regulator does not agree that the New Facilities Investment meets the requirements of section 8.16(a), the regulator may consider whether those requirements are met when it considers the service provider's proposed access arrangement revisions; and
- when considering the service provider's proposed access arrangement revisions, either the Reference Tariff Policy should describe or the regulator shall determine how the capital base at the commencement of the next access arrangement period will be adjusted if the actual New Facilities Investment is different from the forecast New Facilities Investment, with this decision to be designed to best meet the objectives in section 8.1.

Sections 8.18 and 8.19 of the Code provide for the case where, at the discretion of the service provider, the service provider has undertaken New Facilities Investment that does not satisfy the requirements of section 8.16(a). If the service provider undertakes New Facilities Investment that does not satisfy the requirements of section 8.16(a):

- the capital base may be increased by that part of the New Facilities Investment which satisfies section 8.16(a) (the ***Recoverable Portion***); and
- the Reference Tariff Policy may also provide that an amount in respect of the balance of the New Facilities Investment may subsequently be added to the capital base if at any time the type or volume of network services provided using the new facility change such that any part of the difference between the New Facilities Investment and the Recoverable Portion (the ***Speculative Investment Fund*****)** satisfies the requirements of section 8.16(a).

Sections 8.23 and 8.24 provide for the case where a network user makes a ***Capital Contribution*** in respect of a new facility.

Sections 8.25 and 8.26 provide for case where a service provider instead elects to recover all or part of an amount that it would not recover at the prevailing tariffs through a ***Surcharge***.

Sections 8.27 and 8.29 provide for a Reference Tariff Policy to include a mechanism that will, with effect from the commencement of the next Access Arrangement Period, remove ***Redundant Capital*** from the capital base. The same treatment is required of assets that have been sold. Of particular note is the provision that:

> *"...Before approving a Reference Tariff which includes such a mechanism, the Relevant Regulator must take into account the uncertainty such a mechanism would cause and the effect that uncertainty would have on the Service Provider, Users and Prospective Users. If a Reference Tariff does include such a mechanism, the determination of the Rate of Return (under sections 8.30 and 8.31) and the economic life of the assets (under section 8.33) should take account of the resulting risk (and cost) to the Service Provider of a fall in the revenue received from sales of Services or part of the Covered Pipeline."*

This is not an optimisation provision. Rather, the Redundant Capital mechanism must be agreed as part of the access arrangement.

### 4.2.2 Relevant features of the current Access Arrangement

SAIPAR endorsed a depreciated optimised replacement cost (DORC) methodology for valuing the capital base of the South Australian distribution network at the commencement of the first Access Arrangement Period (Initial Capital Base).

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 (i.e., 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 (e.g., 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 there are redundant assets;
- 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 of Envestra's Initial Capital Base included:

- 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 for cast iron pipe, as well as for most high-pressure applications;
- an overhead cost rate of 17.5%;
- a residual value of 12% for mains and inlets; and
- effective asset lives for polyetheylene and unprotected steel mains and inlets of 60 years, of protected steel mains and inlets of 120 years and cast iron mains of 85 years.

The Initial Capital Base value finally approved by SAIPAR based on the DORC asset valuation methodology was $617 million as at 30 June 1998, which represented around a 20% reduction on the valuation initially proposed by Envestra.

Envestra's New Facilities Investment forecasts for the first Access Arrangement Period are provided in *Table 14: New Facilities Investment* of the Access Arrangement Information document. A significant portion of the New Facilities Investment involved is for the mains replacement program (MRP). SAIPAR accepted that the MRP met the economic test of the Code.

Section 3.3.3.2 of the approved Access Arrangement included the provision that:

> *"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."*

Section 3.3.4 of the approved Access Arrangement provided the following mechanism to deal with 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."*

*Table 15: Roll Forward of the Capital Base* in the approved Access Arrangement Information document sets out the calculation for rolling forward the capital base, commencing with the initial capital base as approved by SAIPAR.

### 4.2.3 Possible issues and options

According to section 8.9 of the Code, the commencing capital base using the cost of service method ($K_t$) should be calculated as:

$$K_t = K_{t-1} + I^*_{t-1} - D_{t-1} - RK_t$$

where:

$K_{t-1}$ = capital base at the start of the previous access arrangement;

$I^*_{t-1}$ = portion of New Facilities Investment in the previous access arrangement period that qualifies for incorporation into the capital base;

$D_{t-1}$ = regulatory depreciation during the previous access arrangement period; and

$RK_t$ = redundant capital identified prior to the start of the new access arrangement (assets removed from the capital base because they no longer contribute to the delivery of services, provided that a mechanism for such removal exists in a service provider's reference tariff policy).

The Initial Capital Base as determined by SAIPAR at the commencement of the first Access Arrangement Period ($K_{t-1}$) is now locked in under the Code. Once the Initial Capital Base is set, that value is set forever, and there is no further reopening of that value (with the exception of identified redundant assets) at future access arrangement reviews.

In fact, there may only be two sets of issues for consideration in rolling forward this Initial Capital Base, namely:

- the extent to which variations in actual capital expenditure from levels forecast at the commencement of the first Access Arrangement Period should be incorporated; and
- the scope of any Redundant Capital evident during the first Access Arrangement Period.

***New facilities investment in the first period***

Section 3.3.3.2 of the approved Access Arrangement provides that the regulated capital base at the commencement of the second Access Arrangement Period should include an adjustment on account of:

> *"...any difference between actual and forecast New Facilities Investment in accordance with section 8.22 of the Code."*

It is possible that the Commission could judge this provision as not representing an appropriate policy for dealing with how any variance between actual and forecast New Facilities Investment observed during the first Access Arrangement Period is

to be incorporated into the capital base. In these circumstances, section 8.22 provides that the Commission shall determine, at the time the Commission considers revisions to an access arrangement submitted by the service provider, how any variance between actual and forecast New Facilities Investment observed during an Access Arrangement Period is to be incorporated into the capital base, with this decision to be designed to best meet the objectives in section 8.1.

Therefore, when it comes to calculating the regulated capital base at the commencement of the second Access Arrangement Period, the Code only obliges the Commission to add to the Initial Capital Base that portion of investment in new facilities undertaken during the first Access Arrangement Period that was both:

- anticipated at the commencement of that period; and
- approved by SAIPAR.

Capital expenditure associated with Envestra's FRC obligations is an example of capital expenditure neither anticipated at the commencement of that period nor approved by SAIPAR.

Moreover, section 8.21 provides that, in the case where the regulator has not agreed under this section that actual New Facilities Investment meets, or (in the case of forecast New Facilities Investment) will meet, the requirements of section 8.16(a), the Commission is empowered to consider whether those requirements are met when it considers revisions to the Access Arrangement Revisions submitted by the service provider.

It therefore seems that the Commission will have to give consideration to:

- whether section 8.22 of the Code empowers the Commission to determine how the capital base should be adjusted at the commencement of the second Access Arrangement Period if the actual cost of investment in anticipated and approved new facilities during the first period turns out to differ from forecast costs; and
- whether section 8.21 of the Code only binds the Commission to roll actual spending on unanticipated (and so not yet approved at the commencement of the Access Arrangement Period) new facilities into the capital base at the commencement of the next Access Arrangement Period if the relevant regulator has agreed, at its discretion and only after conducting a public consultation in accordance with section 2.28 of the Code, that such investment meets the requirements of section 8.16(a) of the Code.

***Issue 8***

***To what extent should capital expenditure not forecast or approved as part of the first Access Arrangement be rolled into the capital base at the commencement of the second Access Arrangement Period? How should the Commission go about assessing the (section 8.16(a)(i)) prudency of any variations between actual and forecast/approved capital expenditure?***

***Redundant capital***

Section 3.3.4 of the approved Access Arrangement establishes a mechanism to deal with Redundant Capital.

As this mechanism does little more than repeat the relevant provisions of the Code, it is possible that the Commission may judge the Approved Access Arrangement as being insufficient for dealing with how Redundant Capital should be identified and valued for incorporation into the capital base. In these circumstances, it could be left to the Commission to determine the extent to which any assets in the Initial Capital Base have ceased to contribute in any way to the delivery of network services.

***Issue 9***

***How should assets which may have ceased to contribute in any way to the delivery of network services be identified?***

## *4.3 Weighted average cost of capital (WACC)*

### 4.3.1 Requirements of the Code

The Code (section 8.30) provides that the rate of return used when calculating Total Revenue under the cost of service methodology:

> *"…should provide a return which is commensurate with prevailing conditions in the market for funds and the risk involved in delivering the Reference Service (as reflected in the terms and conditions on which the Reference Service is offered and any other risk associated with delivering the Reference Service)."*

In particular, section 8.31 provides for the weighted-average cost of capital (***WACC***) to be determined on the basis of a well-accepted financial model, such as the Capital Asset Pricing Model (***CAPM***). Furthermore, that section states that the WACC:

> *"…should be calculated by reference to a financing structure that reflects standard industry structures for a going concern and best practice. However, other approaches may be adopted*

*where the Relevant Regulator is satisfied that to do so would be consistent with the objectives contained in section 8.1."*

Consistent with section 8.5A, the WACC may be calculated:

- on a nominal basis;
- on a real; or
- on any other basis in dealing with the effects of inflation,

provided that the basis used is specified in the access arrangement, is approved by the regulator and is applied consistently – i.e., the same basis is also used for the capital base, depreciation and all other costs and revenues – in determining the Total Revenue and Reference Tariffs.

### 4.3.2 Relevant features of the current Access Arrangement

As indicated at section 3.3.3.3 of the approved Access Arrangement, a real pre-tax WACC of 7.60% applied for the first Access Arrangement Period.

However, SAIPAR chose not to divulge its WACC input parameters on the grounds that the Code does not require such detail to be divulged in decision papers.[15]

### 4.3.3 Possible issues and options

#### ***Choice of real pre-tax versus nominal post-tax approach***

The Total Revenue requirement in the first Access Arrangement involved a real-terms (pre-tax) approach. The Code allows (section 8.5A) for both:

- a nominal basis for dealing with inflation (as well as a real-terms basis); and
- a post-tax basis for dealing with taxation (as well as a pre-tax basis),

as long as the bases chosen are applied consistently *and* approved by the relevant regulator.

Some regulators have been moving away from use of the real-terms (pre-tax) approach to measuring the WACC. SAIPAR also indicated that it wished the WACC to be re-examined in the next Access Arrangement Period both in terms of its input variables and also with regard to developments in the generally-accepted WACC methodology.[16]

The Commission may need to give consideration to providing guidance on the available choices.

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15 SAIPAR's Final Decision, p. 84.

16 SAIPAR's Final Decision, p. 10.

***Issue 10***

***Should the real versus nominal choice for measuring the WACC (and the pre-tax versus post-tax choice) be left to Envestra to decide?***

## ***Parameters***

Both the Australian Competition Tribunal and the PC have suggested there is no single correct method to calculate a WACC and that there can be a range of plausible values used in applying the CAPM approach.

In these circumstances, it has been suggested that:

- the method used to calculate the WACC and the parameters used in applying that method should in the first instance be proposed by the service provider; and
- the regulator's discretion is limited to where the regulator can show that the parameters proposed by the service provider in applying CAPM lie outside the range of plausible estimates.

To examine these issues, the Commission acknowledges that it (and Envestra) will have to depart from SAIPAR's practice of not publishing the parameters underlying calculation of the WACC. This is essential if issues associated with the 'plausible range' of estimates are to be canvassed.

In addition (and as canvassed in chapter 3), the Commission may need to give consideration to whether application of the section 8 criteria places some limits on values used even within the 'plausible range' of estimates. The Commission must give consideration to providing some guidance on these matters prior to Envestra preparing its Access Arrangement Revisions.

***Issue 11***

***Should the method used to calculate the WACC – and the parameters used in applying the CAPM approach –be proposed in the first instance by Envestra? If there is no single correct method to determine the WACC, how might the range of plausible estimates consistent with the section 8.1 criteria be determined? Should the Commission detail in advance its analytical framework for assessing the reasonableness of estimates proposed by Envestra?***

## *4.4 Depreciation during the second access arrangement period*

### 4.4.1 Requirements of the Code

The Code (sections 8.33 and 8.35) sets out broad principles for determining annual depreciation expenses under the cost of service methodology.

Section 8.33 requires the depreciation schedule to be designed so that:

- the reference tariff changes over time in a manner consistent with the growth of the market for the services provided by the pipeline;
- each asset or group of assets is depreciated over the economic life of that asset or group of assets;
- 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
- an asset is depreciated only once (subject to any capital redundancy).

Section 8.35 provides that, in implementing the principles in section 8.33, regard must be had to the reasonable cash flow needs for non-capital costs, financing cost requirements and similar needs of the service provider.

### 4.4.2 Relevant features of the current Access Arrangement

The first Access Arrangement (section 3.3.5) nominated that depreciation expenses be calculated on a straight-line basis.

The network asset lives and the applicable depreciation rates underlying the first Access Arrangement are summarised in *Table 7: Asset Lives and Depreciation Schedule for Network Assets* of the Access Arrangement Information document.

### 4.4.3 Possible issues and options

Envestra's use of a straight-line approach to depreciation based on the asset lives adopted in the DORC asset valuation during the first Access Arrangement seems non-controversial.

However, there may be circumstances where other approaches may be consistent with the Code. The Commission could give consideration to whether alternatives to the straight-line approach may be consistent with the Code.

***Issue 12***

***Should the Commission provide guidance on the circumstances in which alternatives to straight-line depreciation may satisfy the requirements of the Code?***

## 4.5 Non-capital costs during the second access arrangement period

### 4.5.1 Requirements of the Code

The Code (sections 8.36 and 8.37) sets out the broad principles for determining non-capital costs.

Section 8.36 defines non-capital costs to be the operating, maintenance and other costs incurred in the delivery of reference services. Non-capital costs may include, but are not limited to, costs incurred for generic market development activities aimed at increasing long-term demand for the delivery of the reference service.

Only those operating, maintenance and other non-capital costs incurred (or forecast to be incurred) that pass the ***prudency test*** in section 8.37 are to be included when determining the Total Revenue requirement. Such costs are to be no more than would be incurred by a prudent service provider, acting efficiently, in accordance with accepted and good industry practice and to achieve the lowest sustainable cost of delivering the relevant services.

Pursuant to section 8.2(e) of the Code, any forecasts of non-capital costs must also represent best estimates arrived at on a reasonable basis (the ***reasonableness test***).

### 4.5.2 Relevant features of the current Access Arrangement

Envestra's forecasts of non-capital costs for the first Access Arrangement Period were developed taking into account the changes anticipated over the first Access Arrangement Period in the cost of managing and operating the network in the provision of haulage reference services.

The forecasts of non-capital cost were expressed in nominal dollars, and grouped into the categories set out on pp. 15-18 of the Access Arrangement Information document.

SAIPAR required efficiency gains of 4% per year to be factored into these costs, with the exception of those costs associated with unaccounted for gas, licence fees, contaminated sites and telemetry.

In its Draft Decision, SAIPAR had proposed that an additional 3% efficiency factor be targeted in the fourth and fifth years of the first Access Arrangement Period to recognise *synergy factors*. In response, Envestra indicated that this additional 3% efficiency would be achieved via acquisition of the Stratus Network in Victoria. In the end, SAIPAR accepted that an assessment of the 'synergy factor' may be more suitably addressed at the first review when the competing arguments might be more properly assessed, and so dropped the additional 3% efficiency requirement.

### 4.5.3 Possible issues and options

***Nature and extent of marketing costs***

Pursuant to section 8.36 of the Code, non-capital costs may include costs incurred for generic market development activities aimed at increasing long-term demand for the delivery of the reference service.

In some circumstances, if a service provider undertakes a wide range of marketing activities, there may be grounds for considering whether the benefits of such activities fall evenly across all network users.

***Issue 13***

***Should the Commission provide guidance on the extent to which Envestra's marketing costs will be allowed for the purpose of calculating Total Revenue?***

***Assessing prudency and reasonableness of expected non-capital costs***

The Commission expects to assess Envestra's forecasts of non-capital costs for the second Access Arrangement Period in terms of their prudency and reasonableness.

In may be appropriate for the Commission to give consideration to how it intends to go about assessing Envestra's forecasts of non-capital costs. In doing so, and to the extent that any benchmarking is involved, the Commission will need to take into account the factors that may explain differences in non-capital costs between different gas distribution systems across Australia. Envestra has pointed out on other occasions that its South Australian 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 (e.g., leak repairs) relative to networks in other States.

***Issue 14***

***Should the Commission provide guidance as to the basis upon which it will assess the prudency and reasonableness of (forward-looking) non-capital costs? To what extent should such an assessment rely upon the benchmarking of Envestra's unit costs in the SA gas distribution system relative to unit costs observed in other systems?***

## 4.6 New facilities investment during the second access arrangement period

### 4.6.1 Requirements of the Code

The Code (section 8.20) provides that the Total Revenue requirement may be determined on the basis of New Facilities Investment that is forecast to occur within an access arrangement period provided that the New Facilities Investment is reasonably expected to pass the prudency and economic feasibility tests in section 8.16(a) when the New Facilities Investment is forecast to occur.

The ***prudency test*** in section 8.16(a)(i) is met if the regulator is satisfied that planned New Facilities Investment involve the service provider acting efficiently, in accordance with accepted good industry practice, and to achieve the lowest sustainable cost of delivering services. When applying the prudency test, the Code (section 8.17) requires the regulator to consider:

- whether a new facility exhibits economies of scope or scale;
- the increments in which capacity can be added; and
- whether the lowest sustainable cost of delivering services over a period of time might require a new facility with capacity to meet forecast sales over that time frame.

The ***economic feasibility test*** in section 8.16(a)(ii) is met if the anticipated increase in revenue from a new facility is above its cost, unless the regulator is alternatively satisfied that the new facility either:

- generates system-wide benefits that justify the approval of a higher reference tariff for all users; and
- 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.

### 4.6.2 Possible issues and options

Total Revenue may be determined on the basis of investment that is forecast to occur in the forthcoming access arrangement period. This is conditional on the forecast investment being 'reasonably expected', when it occurs, to meet the section 8.16(a)(i) prudency test. This can involve a detailed examination of the service provider's capital expenditure plans.

In addition, a service provider can specify in its Reference Tariff Policy how its capital base is to be adjusted if actual investment turns out to be different from forecast investment. Otherwise, the adjustment (if any) will be decided by the

regulator when considering the next access arrangement following an *ex-post* assessment of actual capital investment against the prudency test. At issue is whether such an adjustment mechanism should be 'symmetric', adjusting the capital base when actual capital expenditure is both below and above forecast.

Such arrangements can result in limited incentives for economic efficiency and increased regulatory uncertainty.

A notable development in this area in electricity regulation is the ACCC's proposal to adopt what it calls an *ex-ante* framework.[17] Under that proposed framework, at the beginning of the regulatory period, the regulator approves:

- a cap on investment over the period of control ('ex-ante cap'), which covers most or all expected investments during the regulatory period and establishes a cap on the level of investment during the regulatory period to be included in the regulatory asset base at the end of that period;
- a mechanism for separate, project-specific prudency testing for very large and uncertain investments; and
- an 'off-ramps' mechanism if unexpected events cause capital expenditure blow-outs during the regulatory period.

At the end of the period, the ACCC's proposal involves the regulator rolling into the regulated capital base the lower of the present value of the total actual investment in that period and the present value of the profile of annual expenditure specified by the *ex-ante* cap.

The ACCC expects service providers to provide quantified analysis of the relationship between any cost drivers (such as growth in peak demand) and the resulting investment requirement. The proposals would also need to establish how the relevant parameters will be measured and audited.

The ACCC proposes to exclude a project from the *ex-ante* cap if the expected error presented by the inclusion of that project in the cap – quantified in terms of the revenue required to cover depreciation and the return on investment in that project – is equal to more than 10% of the revenue required to cover depreciation and return on investment of all projects included in the calculation of the *ex-ante* cap. Such projects must be linked to unique investment drivers (such as a major point load) rather than to general investment drivers (such as expectations of load growth within a region).

An 'off-ramps' event is a possible but unlikely exogenous event that occurs during the regulatory period. While provision may have been made (in the *ex-ante* cap) to prevent or mitigate the impact of such events, no specific allowance will have been made for efficient investment that may be needed if such an event occurs. Typical

[17] ACCC, *Statement of Principles for the Regulation of Electricity Transmission Revenues*, August 2004.

'off-ramps' events could include commonly defined *force majeure* events but may also include other defined events, such as changes in taxation legislation or changes in applicable service standards. The ACCC proposal is that, if the cost of the event during the period of a regulatory control exceeds 5% of the capital expenditure allowance for the regulatory period, this cost will be recoverable from consumers.

***Issue 15***

***To what extent should the Commission provide guidance as to the desired features of a regulatory framework for assessing New Facilities Investment that provides clear incentives for economic efficiency and reduces regulatory uncertainty?***

## *4.7 Issues arising from the FRC Determination*

### 4.7.1 Relevant features of the current Access Arrangement

Section 3.3.6.6 of the approved Access Arrangement made provision for the adjustment of reference tariffs on account of full retail competition (FRC) costs in accordance with a 'Trigger Event Adjustment Approach' of the type provided for under section 8.3 of the Code.

### 4.7.2 2004 FRC determination

In the event, the FRC trigger event adjustment mechanism in the Access Arrangement has not yet been utilised. Instead, the Commission has used powers it also gained on 1 July 2003 under the *Gas Act 1997* (Gas Act) to make a price determination for a gas entity operating a distribution system. The Gas Act provides authority for the Commission to make a price determination under the *Essential Services Commission Act 2002* regulating the prices which Envestra can charge gas retailers for the services it provides to them in accordance with the retail market rules applying to gas entities under FRC.

The Commission used its powers under the Gas Act to establish the costs that would be prudently incurred by a gas distributor undertaking the responsibilities that Envestra has under the retail market rules, taking into consideration industry circumstances. In its deliberations on this issue, the Commission has applied the factors and principles as required by relevant legislation. This includes the objectives and factors set out in the Gas Act, the factors set out in the price determination provisions of the *Essential Services Commission Act 2002*, the general factors given to the Commission under section 6 of that Act and matters to which the Minister for Energy has directed the Commission to have regard under the Gas Act.

The Commission determined the total revenue that Envestra should recover in respect of its FRC services using the same approach to calculating required revenue as used in the current Access Arrangement, namely as the sum of:

- the prudent operating expenditure determined in this price determination; plus
- a return on the prudent capital expenditure determined in this price determination; plus
- depreciation on prudent capital base.

In doing so, there were significant differences between Envestra and the Commission regarding the reasonableness of Envestra's forecasts of FRC capital expenditure. In the circumstances, the Commission decided to adjust Envestra's forecasts of FRC capital expenditure for the purpose of the 2004 FRC determination, but to do so on the basis that it would re-adjust Envestra's regulatory capital base in light of an assessment of the prudency of the actual amounts of FRC-related capital spending in conjunction with its assessment of the prudency of Envestra's capital spending to be undertaken for the Access Arrangement Review.

Following advice that the Government had entered into a deed with Envestra in which the Government committed to pay $54.6 million in respect of Envestra's prudent FRC costs excluding telemetry, the Commission determined that such funding would be sufficient to offset all of Envestra's prudent FRC costs, excluding telemetry, until 1 July 2006 and would leave a residual amount thereafter to be dealt with under the revised Access Arrangement.

As a result, and excluding telemetry, the Commission set prices of zero in respect of these prudent FRC costs for the two years up until the commencement of Envestra's revised Access Arrangement on 1 July 2006.

While the Government has opted to prepay a contribution towards meeting Envestra's FRC costs (with an up-front lump-sum payment), the Commission and Envestra both need to incorporate such Government payments into their Access Arrangement Review work in the form of an annualised series of payments. In the first instance, this requires a value for the balance of the ex-gratia payment as at 1 July 2006, to be factored into reference tariffs set as part of the revised Access Arrangement ("the 1/07/06 residual value").

To conform with incentive regulation requirements, the Commission has previously indicated to Envestra its intention to calculate the 1/07/06 residual value by:

- first subtracting the annual revenue requirement for each of the years prior to 1 July 2006 from the initial ex-gratia payment – in so doing, the Commission will not be removing any incentives provided to Envestra under the 2004 FRC determination; and

- also adjusting the 1/07/06 residual value on account of any differences between the actual interest rate earned by Envestra on unspent balances up to 1 July 2006 and the benchmark interest rate projected at the time of the 2004 FRC determination – to ensure that any windfall from Envestra investing the Government's ex-gratia payment differently than advised at the time that ex-gratia payment being to the benefit of gas consumers rather than Envestra's shareholders.

The Commission indicated it would ensure that the benefit of the ex-gratia payment that is not required in the first two years of FRC is appropriately allocated to consumers in future years.

### 4.7.3 Possible issues and options

***Prudency of FRC-related capital expenditure***

During the 2004 FRC determination process, the Commission foreshadowed that it would adjust the capital base for any actual capital cost incurred above the levels deemed prudent in the 2004 FRC determination *up to* the amounts set out in Envestra's FRC submission. Using the level determined to be prudent in the 2004 FRC determination *as a floor* ensures that no further regulatory risk is introduced. Using the level proposed by Envestra *as a ceiling* provides Envestra with the incentive to ensure that capital costs incurred following completion of the price determination are as efficient as possible.

***Issue 16***

***Should the Commission give advance consideration as to what additional assessments and consultation may be necessary to assess the prudency and reasonableness of the FRC capital expenditure actually incurred by Envestra to 1 July 2006 and forecast to be incurred from 1 July 2006?***

***Allocation of post-July 2006 unspent FRC fund***

With respect to how the 1/07/06 residual value is to be factored into reference tariffs set as part of the revised Access Arrangement (and so the arrangements to apply *after 1 July 2006*), Envestra has foreshadowed its preference for the use, for each of the first three years of the access arrangement period commencing 1 July 2006, of the annual revenue requirement for those years as published as part of the 2004 FRC determination. While this may have some attractions, it does not appear to be the only option available. The Commission may need to consider publishing its views on alternative options in advance of Envestra developing any Access Arrangement Revisions.

***Issue 17***

***In the absence of any relevant Ministerial notice or direction, should the Commission provide guidance as to how the benefit of the ex-gratia FRC payment that is not required by Envestra in the first two years of FRC is to be allocated to consumers in future years?***

# 5 REFERENCE TARIFFS: PRICE STRUCTURE ISSUES

This chapter examines possible issues associated with translating the Total Revenue requirement into tariffs for reference services (reference tariffs). This involves determining the portion of the Total Revenue that a reference tariff should be designed to recover from sales of the reference service, and the portion of revenue that should be recovered from each user of that reference service.

The reference tariff serves as a benchmark price at which a prospective user is entitled to gain access to services and applies only to the reference service as defined in the access arrangement. The Code explicitly preserves the right of service providers and users to enter into negotiated contractual arrangements. Similarly, tariffs can be negotiated if the service required by the user is different to the reference service.

## *5.1 Requirements of the Code*

The Code (section 8.2(b)) provides that, in determining whether to approve a Reference Tariff and Reference Tariff Policy, the regulator must be satisfied that the 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.

The overview to section 8 summarises the relevant requirements as being that the amount that is payable by a user to the service provider for a reference service be '***cost reflective***', although substantial flexibility is provided.

Sections 8.38 to 8.41 state the principles to be met by the allocation of revenue (costs) ***between reference services***. To the maximum extent that is commercially and technically reasonable, section 8.38 requires that the portion of the Total Revenue that a reference tariff is designed to recover should include:

- all of the Total Revenue that reflects costs incurred (including capital costs) that are directly attributable to the reference service; and
- a share of the Total Revenue that reflects costs incurred (including capital costs) that are attributable to providing the reference service jointly with other services, with this share to be determined in accordance with a methodology that meets the objectives in section 8.1 and is otherwise fair and reasonable.

Section 8.42 states the principles to be met by the allocation of revenue (costs) ***between network users***. To the maximum extent that is technically and commercially reasonable, a particular network user's share of the portion of Total Revenue to be recovered from sales of a reference service is to be consistent with the principles governing the allocation of revenue (costs) between reference services described in section 8.38.

The Code (section 8.43) allows for an exception to the network users allocation rule in the case of ***'Prudent Discounts***'. Where a network user is receiving a discount (which implies the service provider is receiving less revenue from that user than that assumed in the

calculation of reference tariffs), and such a discount is 'prudent', the regulator has the discretion (when reference tariffs are set initially or reviewed) to permit the service provider to recover some or all of that shortfall in revenue by raising reference tariffs to other users (if the discount is prudent, the reference tariff would be lower for all users than if the discounted customer was not being serviced).

## *5.2 Relevant features of the current Access Arrangement*

The methodology adopted by Envestra in developing the structure of reference tariffs is set out in section 3.1 of the current Access Arrangement and in section 5 of Envestra's Access Arrangement Information document.

### 5.2.1 Allocation of total revenue requirement among haulage reference services

The revenue required to be obtained from the provision of *demand* haulage services in the first Access Arrangement Period 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.

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.

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. Only 20% of unaccounted for gas (UAG) costs were attributed to these assets, because the leakage from the high pressure parts of the network was 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 were 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 first Access Arrangement Period is set out in *Table 18: Composition of Revenue – Demand Haulage Reference Service* in the Access Arrangement Information document.

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 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, i.e., 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.

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.

### 5.2.2 Allocation of revenue requirement from each reference services among users

#### ***Tariff structures***

The reference tariffs for demand haulage services were established on a *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 were also 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 maximum daily quantity (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 is 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, the MDQ is automatically adjusted upwards where this quantity of gas is exceeded four times in a month or eight times in a year.

The tariff structure for the commercial and domestic haulage reference services comprises a quarterly charge and declining block 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 (i.e., ***postage stamp***) basis.

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 requirement calculation for haulage reference services, as are the costs and revenue for negotiated services.

### ***Zonal pricing within the Adelaide Region***

Demand delivery points in the Adelaide Region were divided into four zones.[18]

Envestra stated this zonal approach was 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 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 was not considered cost-reflective or practical in the circumstances.

Envestra proposed the zonal approach on the grounds that it provides 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.

SAIPAR however required that the cost-reflective tariffs for the central and southern zones be phased in over the first Access Arrangement Period, in order to minimise 'price shock' to customers in these zones. In order for revenue to remain unaffected, this transitional approach required that the revenue shortfall be

[18] A map showing boundaries of these zones is included as Annexure D of the Access Arrangement.

recovered from other customers. SAIPAR therefore determined that the target revenue requirement for each customer class (demand, commercial and domestic customers) be increased proportionately.

## *5.3 Possible issues and options*

### ***Changes to section 8 criteria***

Each reference tariff generally has to be set so as to recover the costs expected to be incurred in providing the relevant reference service, as reflected in the composition of target revenue.

The Commission is aware that concerns have been expressed in some quarters about aspects of Envestra's tariff structure in its Access Arrangement, particularly the relatively greater weight given to fixed (as opposed to variable) tariff components compared with the structure implemented in Victoria.

Separately, in order to provide more specific and operational guidance for setting reference tariffs under the Code, and to ensure consistency with the national access regime, the PC review recommended (recommendation 7.1) that amendment to section 8.1 of the Code include:

> *"A reference tariff or reference tariff policy should be designed with regard to the overarching objects clause, s.2.24 and the following principles:*
>
> *…*
>
> *(b) that the access price structures should:*
>
> *(i) allow multi-part pricing and price discrimination when it aids efficiency*
>
> *(ii) not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its associated businesses in upstream or downstream markets, except to the extent that the cost of providing access to non-associates is higher*
>
> *(c) that reference tariffs should be set so as to provide incentives to reduce costs or otherwise improve productivity."*

***Issue 18***

***Are there aspects of Envestra's existing tariff structure that warrant – or do relevant features of likely changes to the Code's pricing principles warrant – the Commission clarifying its intended approach to assessing Envestra's Reference Tariff and Reference Tariff Policy for compliance with the Code's requirements for allocating costs between different reference services and between (classes of) users of a reference service?***

### ***Role of tariff basket (weighted average tariff)***

In Victoria, price regulation under the Code is applied to a weighted average of reference tariffs offered by a service provider, rather than to each individual

reference tariff. This approach has been approved by the ACCC for transmission (GasNet) and by the Essential Services Commission of Victoria (ESCV) for distribution (Envestra, Multinet and TXU Australia).

Such an approach provides a service provider with flexibility about how to design individual prices. Multi-part pricing and congestion pricing is not precluded (subject to meeting the overall cap). Indeed, the ESCV advocates the 'tariff basket' form of price control on the basis that it provides incentives for regulated entities to adopt efficient price structures.

The PC review too favoured regulating the weighted average reference tariff, rather than each individual reference tariff when there is more than one reference service, on the grounds that this would enable service providers to adopt more efficient pricing strategies than otherwise.

The Commission will therefore need to consider whether the focus of its assessments should be on the total cost of providing reference services in aggregate (and so on the weighted average of reference tariffs offered by a service provider), rather than on what should be the average cost of providing each reference service (including to each class of network users).

***Issue 19***

***Should the Commission encourage Envestra to base its proposed price path on the weighted average of reference tariffs, and so rely on such an approach to provide the incentives necessary for Envestra to adopt efficient price structures?***

# 6 REFERENCE TARIFFS: ANNUAL VARIATION METHOD

This chapter canvasses issues that may deserve the Commission's guidance associated with the assessment of the annual tariff variation method proposed by the service provider. As the current Access Arrangement involves a combination of price path approach and trigger event adjustment, this chapter focuses on issues associated with these annual tariff variation methods.

## *6.1 Requirements of the Code*

Between (cost-based) access arrangement reviews, the Code grants the service provider the discretion to determine how its reference tariffs vary, provided:

- the regulator is satisfied that the section 8.1 general principles for reference tariffs are met (section 8.3); and
- reference tariffs only vary in accordance with an 'approved reference tariff variation method' specified in a service provider's access arrangement (section 8.3A).

Section 8.3 of the Code lists the following examples of how reference tariffs could be varied during an access arrangement period:

- ***cost of service approach***, where initial reference tariffs are set on the basis of the anticipated costs of providing the reference services and are adjusted continuously in light of actual outcomes (such as sales volumes and actual costs) to ensure that the reference tariffs recover the actual costs of providing the reference services;
- ***price path approach***, where reference tariffs are determined in advance for the access arrangement period to follow a path over time forecast to deliver a revenue stream, with that price path not being adjusted to account for subsequent events until the commencement of the next access arrangement period;
- ***reference tariff control formula***, where an initial set of reference tariffs may vary over the access arrangement period in accordance with a specified formula or process; and
- ***trigger event adjustment***, where reference tariffs are varied in the manner specified in a reference tariff policy upon the occurrence of a specified event.

## *6.2 Relevant features of the current Access Arrangement*

The first Access Arrangement (section 3.3.6) involved reference tariffs for each of the haulage services being set in terms of the *price path approach*.

The price path was expressed in the CPI-X form, where reference tariffs are only allowed to grow at a rate of CPI-X per cent. In particular, for the second and subsequent years of the first Access Arrangement Period, the regulator has been required to approve annual

adjustments to Envestra's reference tariffs, effective from 1 July each year, based upon set price paths:

- for demand haulage, annually adjusting the average price per GJ by the percentage change in the CPI minus 0.5%;
- for commercial and domestic haulage, annually adjusting the tariffs by the percentage change in the CPI minus 0.3%; and
- for ancillary services, annually adjusting the tariff by the percentage change in the CPI.

The change in CPI is measured by the latest March quarter over the previous year's March quarter.

SAIPAR did not publish in detail the derivation of the X values that it approved. Evidently the price path was developed in order to smooth revenue over the Access Arrangement Period. For this purpose, SAIPAR:

- used a forecast annual change in inflation (CPI) of 2.5%; and
- determined that the forecasts in load growth initially proposed by Envestra were inappropriate, with the 2001-02 forecast finally endorsed representing nearly a 4% (total volume) increase on Envestra's initial forecasts.

The current Access Arrangement also allows for both:

- in section 3.4, the pass-through of 'imposts' (i.e., government taxes and charges); and
- in section 3.3.2, 'trigger events' (limited to an interconnection of the network with a new pipeline and full retail competition).

The impost pass-through represents a 'fixed principle' under the Code for a fixed period of two Access Arrangement Periods.

## *6.3 Possible issues and options*

### 6.3.1 Price path approach

The value of X is based, among other things, on an assessment of how far the service provider can reduce its future costs.

There are two alternative methods available for setting an X value:

- to set X in order to smooth the achievement of the series of building block forecasts of annual Total Revenue requirements over the access arrangement period; or
- to use a productivity-based method to set the path of prices from one (cost-based) access arrangement review to the next.

The main difference between a building block and productivity-based approach to setting an X value regulation is that the latter is calibrated on the basis of industry or economy-wide trends and not a service provider's own expected costs.

The use of industry or economy-wide trends is viewed as a way to substantially reduce the compliance cost and contentiousness of regulation. For example, some regulators have expressed interest in using the economy-wide trend in productivity to set a price cap for an individual service provider. On the other hand, the PC review did not support the use of an economy-wide productivity measure to set price caps for service providers.

> *"It is not sensible to expect the productivity of individual businesses, or even whole industries, to grow at a rate similar to that of the economy as whole. Such an approach would significantly increase the potential for regulatory error." (PC review, p. 276)*

***Issue 20***

***What are the key requirements to be met by Envestra's proposed method for setting the value of X in a CPI-X price path in terms of the section 8.1 general principles for reference tariffs?***

### 6.3.2 Trigger event adjustment approach

There is a risk that trigger event adjustment proposed by a service provider may only mitigate downside risks faced by the service provider. To the extent that upside risks are excluded, such 'asymmetric review' may bias expected outcomes in favour of the service provider.

The ACCC terms specified events such as those that are used to trigger a reference tariff variation method as 'off ramps', being the circumstances under which an approved access arrangement could be opened for review by the regulator, in effect triggering a reassessment of reference tariffs.

The Commission acknowledges that care is required when specifying off-ramps to ensure that any asymmetrical bias in expected outcomes is avoided.

***Issue 21***

***Should the Commission provide guidance as to the requirements to be met by any off-ramps proposed by Envestra to ensure that trigger event adjustments are symmetrical in nature?***

# 7 REFERENCE TARIFFS: INCENTIVE MECHANISM

This chapter canvasses issues that may deserve the Commission's guidance associated with the Incentive Mechanism requirement.

## *7.1 Requirements of the Code*

The Code (section 8.2(d)) provides that Incentive Mechanisms may be incorporated into the Reference Tariff Policy wherever the regulator considers this to be appropriate *and* such mechanisms are consistent with the principles contained in section 8.

Section 8.44 defines an incentive mechanism to be a mechanism that permits the service provider to retain all, or any share of, any returns to the service provider from the sale of the reference service in excess of the level of returns expected for that access arrangement period, particularly where the regulator is of the view that the additional returns are attributable (at least in part) to the efforts of the service provider.

Section 8.4 provides that the amount of the benefit to be retained by the service provider under the Incentive Mechanism is to be determined by the regulator in the range of between 0% and 100% of the total efficiency gains achieved.

Section 8.46 provides that an incentive mechanism should be designed with a view to achieving the following objectives:

> *"(a) to provide the Service Provider with an incentive to increase the volume of sales of all Services, but to avoid providing an artificial incentive to favour the sale of one Service over another;*
>
> *(b) to provide the Service Provider with an incentive to minimise the overall costs attributable to providing those Services, consistent with the safe and reliable provision of such Services;*
>
> *(c) to provide the Service Provider with an incentive to develop new Services in response to the needs of the market for Services;*
>
> *(d) to provide the Service Provider with an incentive to undertake only prudent New Facilities Investment and to incur only prudent Non Capital Costs, and for this incentive to be taken into account when determining the prudence of New Facilities Investment and Non Capital Costs for the purposes of sections 8.16(a) and 8.37; and*
>
> *(e) to ensure that Users and Prospective Users gain from increased efficiency, innovation and volume of sales (but not necessarily in the Access Arrangement Period during which such increased efficiency, innovation or volume of sales occur)."*

## *7.2 Relevant features of the current Access Arrangement*

The first Access Arrangement (section 3.3.7) involves what is termed a 'cross period incentive mechanism'. This involves 100% of the full value of any efficiency gains achieved during the first Access Arrangement Period being retained by Envestra during both that period and the second Access Arrangement Period, including reductions in the costs of providing reference services and any revenue from reference services greater than forecast.

However, the Access Arrangement provides for the estimates relevant to the efficiency gains during that period to be re-examined at the completion of the first Access Arrangement Period, with a view to estimates relating to the carry-over of efficiency gains to the second Access Arrangement Period being adjusted by the regulator if it is discovered that 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
- 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.

The efficiency gains, whatever their source, made during the first Access Arrangement Period are to be retained by Envestra within that period.

SAIPAR approved this mechanism in order:

> *"…to give Envestra a degree of longer-term certainty for its operations and an incentive for the early introduction of changes to save costs." (SAIPAR's Final Decision, p.12)*

## *7.3 Possible issues and options*

Under the Code, the extent of benefit sharing in an Incentive Mechanism – in the range of between 0% and 100% of the total efficiency gains achieved – is a matter for the regulator to determine.

### 7.3.1 Assessment of sources of efficiency gains in first access arrangement period

While the scope of efficiency gains made during the first Access Arrangement Period will not be known before the Revision Submission Date, it may be best if the Commission spells out its intended framework for assessing whether any significant decreases in input prices or excessive under-estimations of sales that may have been observed during the first Access Arrangement Period were 'reasonably foreseeable' at the time that the estimates relevant to the efficiency gains were made. This may be possible in conjunction with any spelling out of the Commission's framework for its role under section 8.2(e) in assessing whether any forecasts required in setting the reference tariffs represent 'best estimates arrived at on a reasonable basis'.

***Issue 22***

***Should the Commission consider giving some broad guidance as to how it intends to go about assessing whether forecasts made by Envestra of unit sales and input prices, either for the current Access Arrangement or for the next Access Arrangement, are best estimates arrived at on a reasonable basis? Or should such matters be addressed only if it is apparent that any actual decreases in input prices during the first Access Arrangement Period relative to levels forecast by Envestra seem 'significant' or any under-estimations of sales during the first Access Arrangement Period relative to levels forecast seem 'excessive'. If so, should the Commission provide some advance indication as to how it intends to assess the 'significant' and 'excessive' characteristics?***

### 7.3.2 Sharing realised or forecast efficiency gains

It is argued by some that only *actual* efficiency gains should be eligible to be shared between service providers and users, rather than the alternative approach of sharing *forecast* gains. Under the latter approach, a service provider will only share in the benefits of efficiency gains achieved on those efficiency gains made in excess of gains estimated to be possible by the regulator.

It could be claimed that the approach of sharing forecast gains:

- at best, involves incentives being more in the nature of a 'stick' rather than a 'carrot'; and
- at worst, gives rise to significant risk of regulatory error associated with forecasting potential future efficiencies achievable by complex commercial entities.

The Commission acknowledges that future efficiency improvements are difficult to forecast. Sharing efficiency gains on an *ex post* basis may have appeal in the sense that it would no longer be necessary to speculate about future productivity growth. Hence, redistributing efficiency gains to users on an *ex post* basis could decrease the scope for regulatory error. However, this might come at the expense of reducing the incentive properties of the current *ex ante* approach. As the PC review concluded:

> *"…application of [such a] regime would become more like traditional cost of service regulation with a 'regulatory lag' between when efficiency improvements occur and when the resulting cost reductions are passed on to users." (PC review, p. 247)*

***Issue 23***

***To what extent should benefit sharing be based on realised rather than forecast levels of return and efficiencies?***

### 7.3.3 Treatment of forecast efficiency gains

The extent to which efficiency gains are redistributed under approved access arrangements is illustrated in the following Table included in the PC review:[19]

Table 7.1 **Treatment of efficiency gains by regulated gas businesses**

| *Jurisdictional regulator* | *Treatment of forecast efficiency gains* | *Net present value sharing of forecast gains (business/ user)* | *Treatment of unforecast efficiency gains* | *Net present value sharing of unforecast gains (business/ user)* | *Inter-period efficiency carryover mechanism* |
|---|---|---|---|---|---|
| Commonwealth | Not retained | 0/100 | Retain minimum five years | 30/70 | Yes |
| Victoria | Not retained | 0/100 | Retain minimum five years | 30/70 | Yes |
| New South Wales | Not retained | 0/100 | Retain until reset | 30/70[a] | No |
| South Australia | Not retained | 0/100 | Retain ten years | 50/50 | Yes |
| Western Australia | Not retained | 0/100 | Retain until reset | 30/70[a] | No |
| Queensland | Not retained | 0/100 | Retain until reset | Not defined | No |

[a] First year efficiency gains only.

*Source*: AGA, sub. 13, p. 55.

When setting prices on the basis of estimates of *forecast* 'efficient' costs, a regulator is awarding 100% of what the regulator considers to be achievable efficiencies to network users.

The period over which unforecast returns are retained (which under the Code can be for more than a single access arrangement period), and any glidepaths involved, determine the extent to which such excess returns are awarded to network users. In present value terms, 50% of such gains will be awarded to network users even where the service provider retains 100% of such gains for the second period. In present value terms, a minimum of 70% of such gains will be awarded to network users where the service provider retains 100% of such gains only for the period during which such excess returns arise.

Some have suggested that gains be shared at least equally (that is, 50:50 in net present value terms) between the service provider and network users over time.

In competitive markets, at least some of the benefits of productivity improvements tend to be redistributed eventually to customers as lower prices. For this reason, there appears to be a case for the regulator to redistribute at least some of any efficiency gains to users. However, the appropriate timing and extent of redistribution is unclear. This probably needs to be assessed on a case-by-case basis and inevitably involves subjective judgments.

[19] PC review, p. 246.

***Issue 24***

***Does the Commission need to provide guidance regarding its views on the relative incentive merits of alternative gain-sharing ratios and periods?***

### 7.3.4 Sharing of both downside and upside returns

Market-based incentives to improve efficiency and to promote efficient growth of the gas market are provided where a service provider is able to earn greater profits (or less profits) than anticipated between reviews if it outperforms (or underperforms against) the benchmarks that were adopted in setting reference tariffs.

As returns below expectations are not mentioned in sections 8.44 and 8.45 of the Code, the question arises whether the sharing of both downside and upside returns is feasible under the Code.

The ACCC considers that sharing downside and upside returns is feasible under the Code, requiring GasNet Australia to adopt a carryover mechanism for operating costs (and not capital costs) that involves the automatic carryover of losses as well as gains. The incentive mechanisms approved by SAIPAR allowed the automatic carrying forward of benefits from lower than forecast operating and capital costs, but not losses. Likewise, the ESCV has decided that the automatic carryover of losses is inappropriate because it may dampen incentives to make efficiency gains in the next access arrangement period, since any such gains would be offset by the negative amount carried over.

The ACCC has disagreed with the ESCV's view that losses should not be automatically carried over, because not carrying forward losses could create a gaming opportunity for service providers.

***Issue 25***

***It it appropriate for the Commission to provide guidance regarding the sharing of downside as well as upside returns?***

# 8 REFERENCE TARIFFS: INFORMATION DISCLOSURE

This chapter canvasses issues that may deserve the Commission's guidance associated with the Code's requirement (section 2.28) that the service provider must accompany its proposed revisions to the access arrangement with the applicable Access Arrangement Information.

## *8.1 Requirements of the Code*

The Code (section 2.26) states that the Access Arrangement Information must (in the regulator's opinion) adequately enable users to understand how each of the elements of an access arrangement was derived (including reference tariffs), and to form an opinion on whether the access arrangement complies with the Code.

In addition, 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. This Attachment requires six categories of supporting information to be included in an access arrangement:

- access and pricing principles;
- capital costs;
- operations and maintenance;
- overheads and marketing costs;
- system capacity and volume assumptions; and
- key performance indicators.

If a regulator considers the information is not adequate, it can then request the service provider to amend and resubmit the information (section 2.30).

Finally, section 7 of the Code makes general provisions regarding the treatment of confidential information. In particular, sections 7.11 to 7.14 provide that:

- where the service provider furnishes information to the regulator, at the time when the document is furnished the service provider may state that the information or document or part of the information or document is of a confidential or commercially sensitive nature; and
- the regulator must not disclose the contents of any such information except where the regulator is of the opinion that the disclosure of that information would not be unduly harmful to the legitimate business interests of the service provider.

## *8.2 Possible issues and options*

Regulators need a significant level of information to fulfil their obligations where the building block approach is involved.

There seems to have been general disquiet among network users about the adequacy of information disclosure and reporting associated with the first Access Arrangement, including the acceptance by SAIPAR of Envestra's claims of confidentiality over most of the information submitted. The Commission will need to consider the degree of transparency of regulatory decisions warranted under the Code.

Furthermore, the extent of information disclosure by the service provider outside the review process also deserves consideration. The Commission is aware that, under the Code, the preferred time to deal with information requirements is at reviews of access arrangements. During the review process, the Commission intends to examine the extent to which annual reporting of certain information is required for monitoring of compliance with the approved Access Arrangement to be effective.

However, the PC review recognised that information requirements are not costless. The PC recommended deleting sections of the Code that require detailed information on cost allocations between individual reference services and users. The PC also did not consider that the benefits of allowing regulators to obtain information between access arrangement reviews would be greater than the costs on service providers.

The Commission may need to provide guidance on its views regarding information disclosure and the content of the Access Arrangement Information document to avoid delays in its approval of the document to accompany Envestra's proposed Access Arrangements Revisions.

***Issue 26***

***Should the Commission state clearly its information requirements prior to Envestra finalising its proposed Access Arrangement Revisions? To what extent may these requirements need to differ from the Access Arrangement Information documentation approved by SAIPAR?***

# 9 TERMS AND CONDITIONS

This chapter canvasses issues that may deserve the Commission's guidance associated with the Terms and Conditions element of an access arrangement.

## *9.1 Requirements of the Code*

The Code (section 3.6) provides that an access arrangement must include the terms and conditions on which the service provider will supply each reference service.

The only specific principle to be met by such Terms and Conditions is the requirement, in section 3.6, that:

> *" …The terms and conditions included must, in the Relevant Regulator's opinion, be reasonable."*

## *9.2 Relevant features of the current Access Arrangement*

The Access Arrangement addresses the Terms and Conditions requirement at section 4.

The *standard* terms and conditions are set out in Annexure E to the Access Agreement with *specific* terms and conditions to be agreed between Envestra and the Network User in the access agreement limited to:

- details of each User Receipt Point;
- details of each User Delivery Point;
- the period for which the access agreement is to remain in force (which must be at least 12 months);
- the date on which Envestra is to commence providing reference services pursuant to the Agreement;
- 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
- an address and facsimile number for the purposes of the service of notices on the network user pursuant to the agreement.

At section 4.3, the Access Arrangement sets out a number of pre-conditions to be satisfied by a prospective network user that requires a network service before Envestra is required to provide that reference service.

For example, these pre-conditions include the network user must meet the requirements of Envestra's Credit Policy. This Credit Policy (section 4.3(e)) requires that the network user must have an acceptable credit rating, or provide Envestra with security acceptable to Envestra, on terms and conditions acceptable to Envestra. The Access Arrangement goes on to say that, for the purposes of paragraph (e) and until otherwise determined by Envestra:

- ‘an acceptable credit rating’ is a rating of BBB or higher for long-term unsecured counterparty obligations of the entity, as rated by Standard & Poor’s (Australia) Pty Ltd; and
- ‘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).

## *9.3 Possible issues and options*

The Terms and Conditions element of Envestra’s current Access Arrangement mainly details the obligations imposed on network users (rather than the commitments made to network users by the service provider). [The latter are mainly addressed in the Services Policy element of the Access Arrangement – see chapter 2 above.]

The Commission’s guidance regarding the criteria to be met by the terms and conditions may be important because of the Code’s requirement (in section 3.6) that the terms and conditions included in an access arrangement must, *in the relevant regulator's opinion*, be reasonable.

A key issue is what, in the Commission’s opinion, constitutes a ‘reasonable’ term or condition of supply. The Commission does not necessarily feel bound by the test of reasonableness set by SAIPAR. The Commission’s own legislative framework is different to that which faced SAIPAR, and with it comes different perspectives and approaches. Moreover, the Commission has accumulated a good deal of experience in regulating monopoly service providers in other industries. These factors, and subsequent changes in circumstances as well as in generally accepted regulatory practice, mean that it is not appropriate for the Commission necessarily to feel bound by the stance taken by its predecessor.

***Issue 27***

***Should the Commission provide guidance as to its general tests for the reasonableness of terms and conditions? In particular, does Envestra’s current Credit Policy meet the Code’s reasonableness requirement? Is this a matter on which the Commission should provide further guidance?***

# 10 CAPACITY MANAGEMENT AND TRADING POLICIES

This chapter canvasses issues that may warrant the Commission's guidance associated with the Capacity Management Policy and Trading Policy elements of an access arrangement.

## *10.1 Requirements of the Code*

The Code (section 3.7) provides that an access arrangement must include a ***Capacity Management Policy***, being a statement outlining how the capacity of a gas pipeline will be allocated to different users. The Code provides for the covered pipeline to be either:

- a 'Contract Carriage' pipeline; or
- a 'Market Carriage' pipeline.

Market carriage involves network users gaining capacity rights based on existing contractual arrangements and/or historical usage, and the opportunity for network users to trade these quantities.

The Code (section 3.8) states that the relevant regulator must not accept an access arrangement which states that the covered pipeline is a market carriage pipeline unless permitted by the relevant State Minister.

Contract carriage involves the service provider managing the pipeline's capacity by entering into bilateral contracts with shippers, usually made in advance on a long-term basis. Under these contracts, shippers have an exclusive right to the contracted capacity.

If a covered pipeline is operated under a contract carriage model, then the Code also provides (section 3.9) that the service provider must have a ***Trading Policy*** that explains the rights of network users to trade capacity. Under this policy, users of a pipeline must be able to transfer all or part of their contracted capacity.

The specific principles to be met by the Trading Policy element of an access arrangement are stated in sections 3.10 and 3.11 of the Code. In particular, a network 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 (a Bare Transfer).

In these circumstances, 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.

Moreover, where commercially and technically reasonable, a network 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 consent of the service provider; and
- 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 such consent, or make its consent subject to conditions, only if to do so is 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.

## *10.2 Relevant elements of the current Access Arrangement*

Section 5 of the current Access Arrangement states that Envestra's SA gas distribution system is a Contract Carriage pipeline.

Section 6 of the current Access Arrangement sets out the Trading Policy applying to Envestra's SA gas distribution system. This policy involves:

- conditions to be met by the transferee under a Bare Transfer (section 6.1);
- for the transfer or assignment of contracted capacity other than by way of a Bare Transfer, the circumstances in which Envestra may withhold its consent or make its consent subject to conditions (section 6.2); and
- the procedures to be followed in relation to transfers or assignments of contracted capacity other than Bare Transfers (section 6.4).

## *10.3 Possible issues and options*

Capacity management and trading is generally only relevant for transmission pipelines.

Market carriage currently is only used in Victoria, where an independent system operator (VENCorp) manages the pipeline capacity through a 'poolco' approach.

If a covered pipeline is operated under a contract carriage model (as is currently the case for Envestra's SA gas distribution system), users of a pipeline must be able to transfer all or part of their contracted capacity in accordance with a Trading Policy. Depending on the circumstances, users might have to seek a service provider's permission to trade their capacity right.

Trading Policies generally have not involved use-it-or-lose-it rules for unutilised contracted capacity.

As shippers may use their capacity rights to undermine competition, some have argued that shippers should be required to give up unutilised contracted capacity. For example, in its submission to the PC review, the South Australian Government supported the introduction of such rules to encourage network users to trade their unutilised contracted capacity.

Much depend upon whether there is unutilised contracted capacity in the South Australian gas distribution system.

***Issue 28***

***Should the Commission give consideration to approving use-it-or-lose-it rules for contracted capacity? For the SA gas distribution system, might the benefits of introducing use-it-or-lose-it rules be outweighed by the costs?***

# 11 QUEUING POLICY

This chapter canvasses whether there is any issue requiring the Commission's guidance associated with the Queuing Policy element of an access arrangement.

## *11.1 Requirements of the Code*

The Code (section 3.12) provides that, for any covered pipeline that is not a transmission pipeline, if the relevant regulator so requires, an access arrangement must include a policy for determining the priority that a prospective user has to access spare and developable capacities, where such access may impede the ability to provide a service to another prospective user (Queuing Policy).

In doing so, the regulator is required to take into account:

- the nature of the covered pipeline;
- the services likely to be sought by prospective users; and
- any other matters that the relevant regulator considers are relevant.

The Code (section 10.8) defines the relevant key terms as follows:

- ***capacity*** means the measure of the potential of a covered pipeline to deliver a particular service between a receipt point and a delivery point at a point in time;
- ***spare capacity*** means:
  - in relation to a contract carriage pipeline, the difference between the capacity and the contracted capacity which is being used; and
  - in relation to a market carriage pipeline, the capacity to provide a service without impeding the provision of the service to any other user;
- ***developable capacity*** means the difference between the capacity and the capacity which would be available if additions of plant and/or pipeline were made, but does not include any extension of the geographic range of a covered pipeline;
- ***contracted capacity*** means that part of the capacity which has been reserved by users pursuant to a contract entered into with the service provider.

The specific principles to be met by the Queuing Policy element of an access arrangement are stated in sections 3.13 to 3.15 of the Code. In particular:

- section 3.13 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, and generate, to the extent reasonably possible, economically efficient outcomes; and
- section 3.14 authorises the relevant regulator to require the Queuing Policy to deal with any other matter the regulator thinks fit taking into account the matters listed in section 2.24 of the Code.

## 11.2 Relevant features of the current Access Arrangement

Section 7 of the current Access Arrangement states the Queuing Policy approved by SAIPAR. This policy involves:

- requests from prospective network users being 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), Envestra will offer the spare capacity to that prospective network user; and
- where there is insufficient spare capacity available 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; and
  - may then undertake an investigation of developable capacity alternatives (and 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).

## 11.3 Possible issues and options

Whether there are any issues deserving the Commission's consideration and possible guidance with regard to Envestra's Queuing Policy depends heavily on any experience with this policy during the first Access Arrangement Period.

Unless network users or prospective users have experienced problems with this policy – or understanding the policy – the Commission is unlikely to address Queuing Policy in its forthcoming Discussion and Guidance Papers.

***Issue 29***

***Does the currently-approved Queuing Policy require any reconsideration by the Commission, particularly in view of experience with that policy during the first Access Arrangement Period?***

# 12 EXTENSIONS/EXPANSIONS POLICY

This chapter canvasses issues that may deserve the Commission's guidance associated with the Extensions/Expansions Policy element of an access arrangement.

## *12.1 Requirements of the Code*

The Code (section 3.16) provides that an access arrangement must include a policy (Extensions/Expansions Policy) which:

- specifies the method for determining whether or not a pipeline extension or capacity expansion is to be treated as part of the covered pipeline for all (or some) purposes under the Code;
- specifies 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, describes those new facilities and the conditions on which the service provider will fund the new facilities.

Section 3.16(c) of the Code specifically prevents the relevant regulator requiring the Extensions/Expansions Policy to state that the service provider will fund new facilities unless the service provider agrees.

The Code does not provide any specific principles to be met by the Extensions/Expansions Policy element of an access arrangement.

## *12.2 Relevant features of the current Access Arrangement*

Section 8 of the approved Access Arrangement sets out Envestra's Extensions/Expansions Policy.

With regard to *coverage*, the approved policy (section 8.1) involves:

- 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; and
- 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[20] in which case Envestra will have the option of treating the extension as either part of the network or a stand-alone pipeline.

With regard to *haulage reference tariffs*, the approved policy (section 8.2.1) involves:

[20] A significant extension is an extension to one or more delivery points, where the anticipated quantity of gas delivered exceeds 10TJ per year.

- to the extent that an extension or expansion meets the prudency test in section 8.16(a)(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 referred to in section 8.16(a)(ii)(B) of the Code but fails to meet the economic feasibility test in section 8.16(a)(ii)(A) based on the prevailing tariff, 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 where Envestra believes that these benefits justify the approval of a higher reference tariff for a haulage reference service for all network users; or
- to the extent that an extension or expansion is necessary to maintain the safety, integrity or contracted capacity of network services referred to in section 8.16(a)(ii)(C) of the Code but fails to satisfy the system-wide benefits requirements of section 8.16(a)(ii)(B), Envestra may seek revisions to the Access Arrangement to provide for new tariff arrangements; or
- to the extent that an extension or expansion does not satisfy any of the requirements of section 8.16(a) 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.

## *12.3 Possible issues and options*

### 12.3.1 Coverage

The currently-approved policy relating to coverage of an extension or expansion depends upon the definition of the two terms. These terms are not explicitly defined in the Code. In practice, these terms are typically interpreted as follows:

- ***extension*** means the connection of a gas pipeline or facility which extends the geographical boundaries of a network; and
- ***expansion*** means an increase in the capability of a network to transport gas, including by the acquisition or construction of new network assets, but does not include an extension.

An Extensions/Expansions Policy must specify the method for determining whether or not an extension or expansion will be treated as part of the covered pipeline for any purpose under the Code. The currently-approved policy involves significant extensions being treated as a stand-alone pipeline at Envestra's option. What this means regarding the 'coverage' of any extensions nominated as a stand-alone pipeline could be subject to interpretation. It could be argued, for example, that the Australian Competition Tribunal's decision for the Moomba–Adelaide pipeline

system[21] supported the view that expansions should not be covered unless an application for coverage is made and consequent due process follows.

An alternative approach might be to treat any expansion of a covered pipeline – whether 'significant' or not – as part of the covered pipeline unless the service provider nominates otherwise and the regulator agrees. Such an approach was favoured in the PC review.

The PC review identified a number of problems that might emerge if expansions of covered pipelines are not covered:

- The scope for regulatory error could increase because a service provider's reference tariffs would be based on the theoretical costs of a smaller pipeline (which excludes the uncovered expansion).
- The arbitration process could be undermined. An arbitrator could order the expansion of a pipeline but not be able to enforce terms and conditions on the expansion. In addition, it might mean that even if an expansion was built before a dispute, a service provider could maintain that all of the covered capacity was fully contracted and while the capacity associated with the expansion was spare, the arbitrator would have no power to enforce terms and conditions over this capacity.
- If a pipeline expansion generates economies of scale (that is, average costs fall), not covering the expansion means that over the long term a service provider could recover average revenue from reference services that is greater than the average costs of delivering these services.

Further, the PC concluded that:

> *"It is difficult to see how a case could be made that the market power of a covered pipeline did not apply to an expansion of that pipeline. Under these circumstances, not covering an expansion by default has the potential to add to the administrative costs of the regime without increasing its benefits. If a service provider considers that the expansion has reduced its ability to exert market power in the relevant market, then the appropriate approach is to apply for revocation of the entire pipeline.*
>
> *It is also unlikely that coverage of expansions by default will increase to a greater degree than a case-by-case assessment of expansions, the incentive to build expansions that are essentially fully contracted prior to construction. An uncovered expansion of an otherwise covered pipeline might still be subject to an application for coverage. Therefore, the incentive to build only to meet contracted demand would be similar under either approach.*
>
> *… the Commission is of the view that expansions of covered pipelines should be covered by default under the Gas Access Regime." (PC review, p. 328)*

[21] Australian Competition Tribunal, *Application by Epic Energy South Australia Pty Ltd [2003] ACompT 5*

***Issue 30***

***Should any distinction be made between the coverage of 'extensions' versus 'expansions' to the network? Should an access arrangement be approved if it involves the coverage of an 'extension' being at Envestra's discretion?***

### 12.3.2 Obligations on the service provider

An Extensions/Expansions Policy must specify how any extension or expansion of a covered pipeline will affect reference tariffs. For example, the policy might state that reference tariffs remain unchanged but a surcharge will be levied on incremental users. In addition, if a service provider agrees to fund an expansion under certain conditions, then the policy must give a description of the type of expansion and the conditions under which the service provider will fund it.

Generally, all extensions of the network must the requirements of section 8.16(a) of the Code. This includes the requirement that revenue to be generated by the additional customers connecting to the network must be at least equal to the costs incurred in extending the network to these customers. Any shortfall may be overcome by levying a surcharge on those particular customers.

The central issue regarding the arrangements that apply to network extensions to connect new customers is to ensure that customers receive gas distribution services where it makes sense for them to do so. In other words, if customers want the distribution services and are willing to pay an amount, over time, that is at least equal to the additional costs incurred, then the arrangements should facilitate efficient delivery of the services.

There are a number of options for the design of the overall arrangements to achieve this. At one extreme, the arrangements could rely on hard-wired project-by-project obligations, with relevant tariffs and any surcharges determined on a case-by-case basis. At the other extreme, decisions about extensions could be left completely to the service provider within a framework of incentives and broad assumptions about the number of customers to be connected and marginal costs and revenues.

Ultimately, the arrangements may need to incorporate a combination of licence obligations and incentive mechanisms. Issues relevant to the overall design of arrangements would appear to be:

- the nature and scope of the service provider's obligations with respect to the extension of the network to connect new customers; and

- the means by which any offers made by the service provider can be assessed as compliant with the feasibility test without case-by-case intervention by the regulator.

***Issue 31***

***To what extent does the Commission need to give consideration to ensuring that customers receive gas distribution services where such customers are prepared to meet the net incremental costs of receiving those services?***

# 13 DURATION OF ACCESS ARRANGEMENT

This chapter deals with the related matters of:

- the review and expiry of the Access Arrangement; and
- the provision that allows certain reference tariff principles to be extended beyond the review and expiry provisions applying to other elements of an access arrangement.

## *13.1 Review and expiry of the Access Arrangement*

### 13.1.1 Requirements of the Code

The Code (section 3.17) provides that an access arrangement must include:

- a date upon which the Service Provider must submit revisions to the Access Arrangement (a ***Revisions Submission Date***); and
- a date upon which the next revisions to the Access Arrangement are intended to commence (a ***Revisions Commencement Date***).

Sections 3.17 to 3.20 also provide the specific principles to be met by these review and expiry elements of an access arrangement. The overview to section 8 summarises these principles in the following terms:

> *"The principles that guide the determination of the Reference Tariff Period ... permit the Reference Tariff Period to be any length of time that is consistent with the objectives for setting Reference Tariffs. However, the Relevant Regulator must consider (but is not bound to require) inserting safeguards against excessive forecast error if the Reference Tariff Period is over five years."* [22]

### 13.1.2 Relevant features of the current Access Arrangement

The current Access Arrangement (section 9) provides that:

- Envestra will submit revisions to this Access Arrangement to the Regulator on or before 1 October 2005 (section 9.1); and
- the revisions to the Access Arrangement referred to in section 9.1 are to commence on the latter of 1 July 2006 and the date on which their approval takes effect under the Code (section 9.2).

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[22] The Code states that the mechanisms to deal with cases where the forecasts used to determine an access arrangement prove to be incorrect may include:

- a trigger mechanism that requires a service provider to submit revisions to its access arrangement if certain events occur (for example, if profits fall outside a pre-specified range); and
- a benefit sharing mechanism that involves service providers returning some revenues or profits in excess of a certain amount to users.

These matters are dealt with separately above in chapters 6 and 7 respectively.

### 13.1.3 Possible issues and options

Section 3.18 of the Code allows regulators to approve an access arrangement period of any length. Regulators typically approve access arrangements with a five-year life span.[23]

The PC review noted that the mechanisms in the Code involving:

- the scope for regulators to approve access arrangements of extended duration, and
- fixed principles that lock in certain regulatory parameters over a long period

both provide scope for reducing the risk of unforeseen changes in regulatory parameters (parameter risk). Regulatory risk occurs when additional risks are imposed on a project's returns due to uncertainty about a regulator's future behaviour. This increase in project risk, if there is no compensating increase in the expected return of the project, will act as a deterrent to investors. However, the extent to which risk is reduced depends on the types of review mechanisms that regulators require in an access arrangement of extended duration.

There may be limits on the extent to which the Commission can consider methods for addressing any regulatory risk concerns. In June 2001, COAG agreed that:

- the MCE's tasks would include a review of electricity and gas market regulatory structures to facilitate efficient and competitive energy services with adequate investment and benefits for users; and
- a key objective of energy market reform is to streamline economic regulation across energy markets, lowering the cost and complexity of regulation facing investors, enhancing regulatory certainty and lowering barriers to competition.

In December 2003, the MCE recommended a reform package to COAG, and COAG has accepted the recommendations contained in that package. The reforms include the establishment of a single, national regulator to regulate the energy market, named the Australian Energy Regulator (AER). The AER's functions are to include responsibility for the regulation of energy distribution and retailing (other than retail pricing), following development of an agreed national framework. At this stage, the AER is expected to assume responsibility for national regulation of distribution shortly after the Commission's Access Arrangement Review is completed.

While it is still early days (with the requisite national framework for electricity and gas distribution and retailing yet to be developed and agreed), the implementation details that are emerging imply that local regulators such as the Commission will retain responsibility for completing regulatory tasks commenced before 2006 and

[23] One exception is the ACCC's decision for the Central West Pipeline (Marsden–Dubbo pipeline), which provided for a 10 year access arrangement and thus enabled benefits from better than forecast cost reductions to be kept for up to 10 years.

which are due to be completed before 2008. Hence, the establishment of the AER does not have a *direct* bearing on the Commission's responsibilities for the first review of Envestra's Access Arrangement.

However, the strong likelihood is that the second review of Envestra's Access Arrangement (due for completion by around 2011) will be undertaken by the AER rather than the Commission. In this sense, establishment of the AER could have *indirect* implications for the Commission's approach to the upcoming first review.

***Issue 32***

***Should the Commission give advance consideration to an extended (longer-than-five-years) access arrangement period? What weight should be given to leaving maximum discretion to ESCOSA's successor (the AER)?***

## *13.2 Fixed principles*

### 13.2.1 Requirements of the Code

The Code (sections 8.47 and 8.48) allows some components of a Reference Tariff Policy to be locked in for longer than a single access arrangement period. These components are termed '***Fixed Principles***' and are limited to '***structural elements***'. Structural elements are reference tariff calculation principles and methods that do not vary with changing market conditions and that are structured for longer than a single access arrangement period. They include the depreciation schedule and the assumed financing structure. Elements that cannot be locked in as Fixed Principles (termed by the Code as '***market variable elements***') include sales forecasts, real interest rates, and capital and non-capital costs.

### 13.2.2 Relevant features of the current Access Arrangement

In its initial proposed Access Arrangement, Envestra put forward thirteen Fixed Principles.

In the end, SAIPAR's Final Decision required Envestra to delete all proposals for Fixed Principles except that relating to the pass-through of imposts. Some of the others were rejected by SAIPAR on the grounds that they reproduced certain sections of the Code or, in one instance, involved a 'market variable element'.

The remaining proposed Fixed Principles were all rejected on the basis that:

> *"SAIPAR will not allow Fixed Principles that limit the discretion of the Regulator upon review of the Access Arrangement without good reason." (SAIPAR's Draft Decision, p.147)*

### 13.2.3 Possible issues and options

SAIPAR cited the Queensland Competition Authority's final decision for Envestra's Queensland distribution network, which also required Envestra to delete references to its reference tariff policy as a Fixed Principle of its proposed Access Arrangement. The Queensland regulator noted the following:

> *"It is the Authority's view, as outlined in the Draft Decision, that there may be benefits attributable to the use of fixed principles, namely increased market certainty. However, given the context of the access arrangement, that is, the first access arrangement for Queensland gas distribution networks, the Authority requires sufficient scope to modify aspects of the access regime as lessons are learned. The Authority therefore maintains its view that fixed principles should not be included." (quoted in SAIPAR's Final Decision, p.203)*

An example of the application of Fixed Principles is the ACCC decision for the Central West Pipeline to allow a depreciation schedule that under recovers in initial years to build demand and then recovers losses with higher tariffs later.

Fixed Principles have also been approved by the ESCV for Victorian distributors (Envestra, Multinet and TXU Australia). For example, their access arrangements contain Fixed Principles that include a commitment that:

- until the end of the next access arrangement period:
  - incentive based regulation using a CPI-X price cap will be adopted, rather than rate of return regulation; and
  - the capital asset pricing model (CAPM) will be used to calculate the rate of return on the capital base, if the rate of return is relevant to the determination of reference tariffs; and
- for 30 years from the commencement of the access arrangement, the value of the capital base at the start of the access arrangement period will not be reduced as a result of assets becoming redundant.

Fixed Principles might to some extent reduce risk for investors. However, given the uncertainty associated with setting regulatory parameters, there is a possibility that a Fixed Principle will lock in a regulatory error for an extended period. This possibility might cause regulators to err on the side of caution by requiring regulatory parameters that are less advantageous for a service provider. In addition, the extent to which regulatory risk is reduced by a Fixed Principle depends on the fixed period allowed by a regulator and on which parameters can be fixed.

***Issue 33***

***Should the Commission provide guidance regarding the requirements to be met by any proposals made by Envestra for Fixed Principles?***