Access arrangement final decision

SPI Networks (Gas) Pty Ltd

2013–17

Part 2: Attachments

March 2013

AUSTRALIAN ENERGY REGULATOR

Contents

Shortened forms

Shortened form	Full title
2008–12 access arrangement	Access arrangement for SP AusNet effective from 1 January 2008 to 31 December 2012
2013–17 access arrangement	Access arrangement for SP AusNet effective from 1 January 2013 to 31 December 2017
2018–22 access arrangement	Access arrangement for SP AusNet effective from 1 January 2018 to 31 December 2022
ACCC	Australian Competition and Consumer Commission
AER	Australian Energy Regulator
access arrangement information	SP AusNet, Access arrangement information, 30 March 2012
revised access arrangement information	SP AusNet, Revised access arrangement information, 9 November 2012
access arrangement proposal	SP AusNet, Access arrangement proposal, 30 March 2012
revised access arrangement proposal	SP AusNet, Revised access arrangement proposal, 9 November 2012
capex	capital expenditure
CAPM	capital asset pricing model
CPI	consumer price index
Code	National Third Party Access Code for Natural Gas Pipeline Systems
DRP	debt risk premium
ESC	Essential Services Commission (Victoria)
MRP	market risk premium
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
opex	operating expenditure
PTRM	post tax revenue model
RAB	regulatory asset base
RFM	roll forward model
RPP	revenue pricing principles
SP AusNet	SPI Networks (Gas) Pty Ltd (ACN 086 015 036)
WACC	weighted average cost of capital

1 Review framework

The AER is responsible for the economic regulation of covered natural gas distribution and transmission pipelines in all states and territories except Western Australia. The AER is currently conducting a review of the revised access arrangements of the three Victorian gas distribution networks, including SP AusNet, and the Victorian gas transmission network. The National Gas Law (NGL) and National Gas Rules (NGR) provide the overarching regulatory framework for the gas distribution and transmission sectors.

The Victorian gas distribution networks are subject to full regulation, which requires a service provider[1] to submit an initial access arrangement to the AER for approval, and to revise it periodically (typically every five years). The access arrangement sets out the terms and conditions on which third parties can access the distribution pipeline.[2]

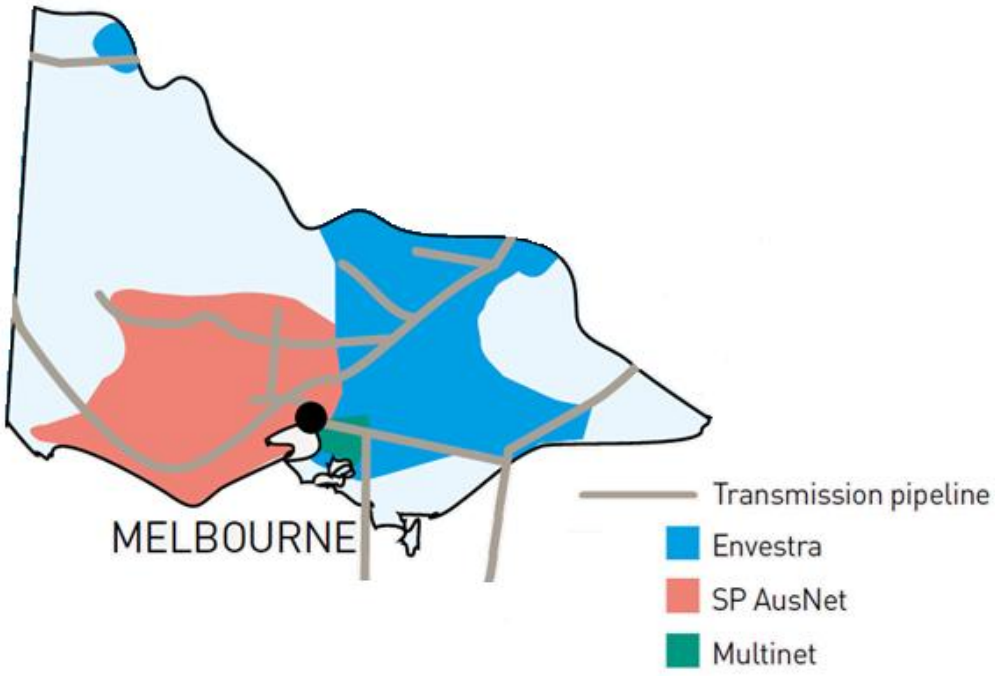
1.1 Overview of the service provider

SP AusNet is a major energy network business that owns and operates electricity transmission assets and electricity and gas distribution assets across Victoria. SP AusNet's gas distribution network delivers gas to approximately 605 000 customers across central and western Victoria. The network spans approximately 9400 kilometres across an area of 60 000 square kilometres (figure 1.1).

1 Under s. 8 of the NGL a service provider is a person who owns, controls or operates a gas pipeline.

2 Providers of gas distribution services typically negotiate contracts to sell pipeline services to customers such as energy retailers. Section 322 of the NGL provides that contracts between service providers and users may differ from those approved by the AER as part of an access arrangement review. In the event of a dispute, however, a user or prospective user may request dispute resolution by the AER under Chapter 6, Part 3 of the NGL. In the event that the AER makes an access determination in order to resolve the dispute, it must give effect to the access arrangement: s. 189.

Figure 1.1 Map of the Victorian gas distribution and transmission networks



1.1.1 Regulation prior to 1 July 2008

The Essential Services Commission (ESC) made the previous determination on SP AusNet's access arrangement for the period 1 January 2008 to 31 December 2012. The ESC made its determination in accordance with the provisions of the National Third Party Access Code for Natural Gas Pipeline Systems (the Code).

Responsibility for the regulation of Victorian gas networks transferred from the ESC to the AER on 1 July 2008 as part of the move towards the national regulation of the energy market. This current determination process is the first full assessment by the AER of the access arrangements of the Victorian gas distribution businesses under the NGL and the NGR.

1.2 The relevant requirements of the NGL and the NGR

The elements of SP AusNet's revised access arrangement proposal have been assessed against the relevant NGL and NGR requirements specific to each element. These assessments are set out in separate attachments in this final decision

Under the NGR, the AER has a certain type of discretion—full, limited or no discretion—when making decisions on particular elements of an access arrangement proposal. These forms of discretion are set out in r. 40 of the NGR as follows:

> No discretion
>
> (1) If the Law states that the AER has no discretion under a particular provision of the Law, then the discretion is entirely excluded in regard to an element of an access arrangement proposal governed by the relevant provision.
>
> Limited discretion

(2) If the Law states that the AER's discretion under a particular provision of the Law is limited, then the AER may not withhold its approval to an element of an access arrangement proposal that is governed by the relevant provision if the AER is satisfied that it:

(a) complies with applicable requirements of the Law; and

(b) is consistent with applicable criteria (if any) prescribed by the Law.

Full discretion

(3) In all other cases, the AER has a discretion to withhold its approval to an element of an access arrangement proposal if, in the AER's opinion, a preferable alternative exists that:

(a) complies with applicable requirements of the Law; and

(b) is consistent with applicable criteria (if any) prescribed by the Law.[3]

Apart from the specific criteria that applies to any one element of an access arrangement proposal, there are two overarching requirements that apply to the assessment of an access arrangement proposal as a whole.

First, the AER must make an access arrangement decision that is in the long term interests of consumers. Specifically, the AER must do so in a manner that will or is likely to contribute to the NGO.[4] The NGO in section 23 of the NGL relevantly provides:

The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.

Rule 100 of the NGR further provides:

The provisions of an access arrangement must be consistent with:

(a) the national gas objective; and

(b) these rules and the Procedures as in force when the terms and conditions of the access arrangement are determined or revised.

Second, the AER must take into account the revenue and pricing principles (RPP) when exercising a discretion in approving or making those parts of an access arrangement relating to a reference tariff, or otherwise where it considers it appropriate to do so.[5] Section 24 of the NGL relevantly provides:

(1) The revenue and pricing principles are the principles set out in subsections (2) to (7).

(2) A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in-

(a) providing reference services; and

(b) complying with a regulatory obligation or requirement or making a regulatory payment.

(3) A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides. The economic efficiency that should be promoted includes-

(a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and

(b) the efficient provision of pipeline services; and

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3 NGR, r. 40.
4 NGL, s. 28(1).
5 NGL, s. 28(2).

(c) the efficient use of the pipeline.

(4) Regard should be had to the capital base with respect to a pipeline adopted-

(a) in any previous-

(i) full access arrangement decision; or

(ii) decision of a relevant Regulator under section 2 of the Gas Code;

(b) in the Rules.

(5) A reference tariff should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates.

(6) Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in a pipeline with which the service provider provides pipeline services.

(7) Regard should be had to the economic costs and risks of the potential for under and over utilisation of a pipeline with which a service provider provides pipeline services.

Interlinkages between different elements of an access arrangement must be taken into account in order to ensure that all of the elements of an access arrangement work together as a whole. This is so that the terms and conditions, including prices, will, among other things, contribute to achieving efficient investment in, and efficient operation and use of SP AusNet's gas distribution network for the long term interests of consumers, in accordance with the NGO. Further, in providing reference services, SP AusNet should, amongst other factors, be provided with a reasonable opportunity to recover at least its efficient costs and with effective incentives in order to promote economic efficiency.

1.2.1 Access arrangement proposal to be approved in its entirety or not at all

The AER's approval of an access arrangement proposal implies approval of every element of the proposal.[6] It follows that, if the AER withholds its approval to any element of an access arrangement proposal, the proposal cannot be approved.[7]

The AER's final decision is not to approve SP AusNet's revised access arrangement proposal. This is because it does not approve a number of elements of SP AusNet's proposal.

1.3 Access arrangement review process

Under the NGL a service provider must submit an access arrangement proposal to the AER for approval under the NGR.[8] An access arrangement proposal contains the terms, including prices, under which the service provider proposes to provide access to the services provided by their networks to users and prospective users.

When submitting an access arrangement proposal, the service provider must submit 'access arrangement information' for the proposal. The term 'access arrangement information' is defined by r. 42(1) of the NGR, which provides:

Access arrangement information for an access arrangement or an *access arrangement proposal* is information that is reasonably necessary for users and prospective users:

(a) to understand the background to the access arrangement or the *access arrangement proposal*; and

6 NGR, r. 41(1).
7 NGR, r. 41(2).
8 NGL, s. 132.

(b) to understand the basis and derivation or the various elements of the access arrangement or the *access arrangement proposal*.

Rule 42(2) provides that access arrangement information must include the information reasonably required by the NGL and the NGR. Rule 48 sets out general requirements including that the service provider must describe the pipeline services it proposes to offer by means of the pipeline and must specify the reference services and reference tariffs. Rule 72 lists specific information relevant to price and revenue regulation that also must be included in an access arrangement. This includes detailed forecasting information and the service provider's proposed approach to the setting of tariffs.

Following the service provider's submission of an access arrangement proposal, the AER conducts a preliminary assessment of the proposal and access arrangement information against the requirements of the NGR (see below). The AER must publish a notice (initiating notice) on its website and in a newspaper notifying receipt of, and describing the access arrangement proposal, giving a website where it can be inspected, and inviting written submissions on the proposal by a specified date.[9] The AER may defer the initiating notice if, on a preliminary inspection, the AER considers that the proposal or related information is deficient in some respect.[10]

After considering the access arrangement proposal, any submissions in response to the service provider's access arrangement proposal, and any other matters the AER considers relevant, the AER must make an access arrangement draft decision.[11] The AER must include a statement of the reasons for the draft decision.[12] An access arrangement draft decision indicates whether the AER is prepared to approve the service provider's access arrangement proposal as submitted and, if not, the nature of the amendments that are required in order to make the proposal acceptable to the AER.[13]

1.3.1 Revision of access arrangement proposal and commencement of public consultation following draft decision

If an access arrangement draft decision indicates that revision of the access arrangement proposal is necessary to make the proposal acceptable to the AER, the decision must fix a period for revision of the proposal.[14] This is known as the revision period. In the revision period, the service provider may submit additions or other amendments to the access arrangement proposal to address matters raised in the access arrangement draft decision.[15] The amendments must be limited to those necessary to address matters raised in the access arrangement draft decision unless the AER approves further amendments.[16]

After the AER makes an access arrangement draft decision, it must notify stakeholders, establish a procedure for stakeholders to make written submissions on the draft decision, and make the draft decision available. It must do this by publishing the decision on its website, and publishing a notice on its website and in a national newspaper.[17] Pursuant to r. 59(5)(c) of the NGR, the notice must invite written submissions. The due date for written submissions must be at least 20 business days after the end of the revision period.

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9 NGR, r. 58(1).
10 NGR, r. 58(2).
11 NGR, r. 59(1); r. 71(2).
12 NGR. r. 59(4).
13 NGR, r. 59(2).
14 NGR, r. 59(2).
15 NGR, r. 60(1).
16 NGR, r. 60(2). For example, the AER might approve amendments to the access arrangement proposal to deal with a change in circumstances of the service provider's business since submission of the access arrangement proposal.
17 NGR, r. 59(5)(b) & (c)

1.3.2 Final decision

After considering the submissions made in response to the access arrangement draft decision within the time allowed, and any other matters the AER considers relevant, the AER must make an access arrangement final decision.[18]

An access arrangement final decision is a decision to approve, or to refuse to approve, an access arrangement proposal.[19] An access arrangement final decision, like an access arrangement draft decision, must include a statement of the reasons for the decision.[20] The final decision must also be published on the AER's website.

If, in an access arrangement final decision, the AER does not approve an access arrangement proposal, the AER must itself propose an access arrangement or revisions to the access arrangement for the relevant pipeline.[21] The AER's proposal for an access arrangement or revisions is to be formulated with regard to:

- the matters that the NGL requires an access arrangement to include
- the service provider's access arrangement proposal
- the AER's reasons for refusing to approve that proposal.[22]

In this final decision, the AER has set out its proposed revisions to make SP AusNet's proposal acceptable. These revisions have been identified by assessing each element of SP AusNet's revised access arrangement proposal in accordance with the relevant requirements set out in the NGL and NGR.

1.3.3 Further final decision

The AER must make a decision giving effect to its proposed access arrangement or revisions within two months of its final decision not to approve a business' access arrangement proposal.[23] The AER may, but is not obliged to, consult on its proposal.[24] Once a further final decision is made, the access arrangement takes effect on a date fixed in the determination or, if no date if fixed, 10 business days after the date of the decision.[25]

1.4 Time limits on AER decision making

The AER is required to make an access arrangement final decision to approve or not approve the access arrangement proposal within six months of receipt of the access arrangement proposal.[26] For the purpose of calculating elapsed time in the making of a decision under the NGL and NGR, certain periods may be disregarded, such as a period allowed for public consultation and a period taken by the service provider to respond to a request for information from the AER.[27]

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18 NGR, r. 62(1).
19 NGR, r. 62(2).
20 NGR, r. 62(4).
21 NGR, r. 64(1).
22 NGR, r. 65(2).
23 NGR, r. 64(4).
24 NGR, r. 64(3).
25 NGR, r. 64(6).
26 NGR, r. 62(7).
27 NGR, r. 11.

For instance, when calculating the six month period, the AER may disregard any period allowed for public submissions on the proposal or on a draft decision.[28] The time taken for a service provider to remedy a deficiency in their access arrangement information under r. 43(3) of the NGR can also be disregarded for the purposes of calculating the six month period. However, the access arrangement review must be completed within an absolute overall time limit of 13 months between the date on which the service provider submits its access arrangement proposal and the AER's final decision.[29]

The AER has made its final decision within this timeframe. As noted above, the AER has a further two months from the date of its final decision to make its further final decision.

1.5 Public consultation

The AER under the NGR is required to consult with interested parties at various stages during an access arrangement review. Effective consultation and engagement with stakeholders is essential to the AER's performance of its regulatory functions.

The AER invited interested parties to make submissions on the AER's draft decision and SP AusNet's revised access arrangement proposal. The AER considered all submissions in making this final decision.

The AER also hosted a consumer group roundtable. The purpose of the roundtable discussion was to explain the gas review process and the AER's assessment approach, to inform participants and to seek their comments on consumer specific issues, and to encourage submissions on the AER's draft decision.

Table 1.1 below outlines the various stages of public consultation that the AER has undertaken as part of the review process.

Table 1.1 Key stages in the decision making process

Key stages in the decision making process	Scheduled date
AER received SP AusNet proposal	30 March 2012
SP AusNet proposal published	2 May 2012
Industry workshop on terms and conditions	18 May 2012
AER draft decision released	10 September 2012
SP AusNet revised proposal to be submitted	9 November 2012
Consumer group roundtable	27 November 2012
Closing date for submissions on revised proposal	7 January 2013
AER final decision released	15 March 2013

[28] NGR, r. 11(1)(c).
[29] NGR, r. 13.

1.5.1 Protected information submitted to the AER

As part of the review process the AER receives protected information from the businesses and other stakeholders. The AER is committed to treating protected information responsibly and in accordance with the law.

Division 1 of Part 2 of Chapter 10 of the NGL deals with disclosure of confidential information held by the AER. The NGL authorises the AER to disclose confidential information in specified circumstances.[30] This includes authorisation to disclose confidential information where it is of the opinion that:

- disclosure would not cause detriment to the person who gave the information, or
- although disclosure would cause detriment, the public benefit in disclosing the information outweighs the detriment to the disclosing person.[31]

If disclosing information under s. 329 of the NGL, the AER must undertake the process set out in s. 329(2) of the NGL. It provides that the AER must: give a notice to the person who gave the information of the intended disclosure; give the person an opportunity to address the AER's case for disclosure; and properly consider that person's case for nondisclosure in making its decision.

The AER undertook the appropriate NGL process to disclose information where it was of the opinion that the information would be relevant to stakeholder submissions or would need to be referred to in its decision, and after it had satisfied itself of the matters required under the NGL.

30 NGL, ss. 324 to 329 (Division 1 of Part 2 of Chapter 10 of the NGR).
31 NGL, s. 329(1).

2 Pipeline services

SP AusNet's revised access arrangement proposal describes the type and nature of pipeline services to be provided. This includes those services likely to be sought by a significant part of the market (reference service) and non-reference services.

Rule 48(1) of the NGR provides that a full access arrangement must specify certain information for pipeline services, including reference services. Pipeline services include haulage services, interconnection services and ancillary services.[32] Reference services are defined as pipeline services that are likely to be sought by a significant part of the market.[33] An access arrangement must:

- identify the pipeline to which the access arrangement relates and a website at which a description of the pipeline can be inspected[34]
- describe the pipeline services the service provider proposes to offer to provide by means of the pipeline[35]
- specify the reference services, and the reference tariff for each reference service.[36]

Rule 109(1) of the NGR provides that a pipeline service provider must not make it a condition of the provision of a service that the prospective user also accept another non-gratuitous service, unless the bundling of services is reasonably necessary.

2.1 Final decision

The AER considers that SP AusNet has met its obligations to describe the pipeline services and specify the reference services that it proposes to offer. The AER approves Envestra's proposed Reference Services and Ancillary Reference Services.

However, the AER does not approve Services Policy with respect to clause 5.2.4 of SP AusNet's access arrangement The AER proposes revisions to clause 5.2.4 to make SP AusNet's access arrangement proposal acceptable.

2.2 Revised proposal

SP AusNet's revised access arrangement proposal in relation to pipeline services has adopted each of the amendments required by the AER in its draft decision.[37] SP AusNet has not made any further changes to its pipeline services and reference services, beyond those required by the AER.

2.3 Assessment approach

The AER's assessment approach for pipeline services is set out in its draft decision. See section 1.3 in attachment A of the AER's draft decision for a detailed explanation of the AER's assessment approach.

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32 NGL, s. 2.
33 NGR, r. 101(2).
34 NGR, r. 48(1)(a).
35 NGR, r. 48(1)(b).
36 NGR, r. 48(1)(c) and r. 48(1)(d).
37 SP AusNet, Revised access arrangement proposal, 9 November 2012, p. 16.

The AER received a submission from AGL relating to clause 5.2.4 of SP AusNet's access arrangement and clause 5.1.4 of Multinet's access arrangement.[38]

For the remaining services, the AER received no further information and for the reasons in its draft decision approves those pipeline services.[39]

2.4 Reasons for the decision

Clause 5.2.4 of the Services Policy

Clause 5.2.4, as referred to by AGL in its submission, provides that:

> Upon that Part coming into operation in Victoria, the procedures for the provision of Connection Services will be set out in Part 12A of the National Gas Rules.
>
> An application for a Connection Service may be made by a Customer of the User but, except where Rule 119O(2) of the National Gas Rules ("Payment of connection charges") applies, the charges for that service are payable by the User.
>
> The charges for Connection Services will be determined in accordance with any applicable requirements of relevant Regulatory Instruments (including where provided for by those Regulatory Instruments by negotiation between the Customer and the Service Provider or between the User and the Service Provider in accordance with those Regulatory Instruments).

The AER notes that proposed r. 119O of the NGR is one of several amendments made to the NGR as part of the National Energy Customer Framework (NECF). However, as yet, these amendments have not been enacted or commenced.[40]

Clarity

The AER considers AGL's claim that clause 5.2.4 is poorly drafted is based on an error.

Since making its submission AGL has confirmed that it misquoted clause 5.2.4 of SP AusNet's revised access arrangement in its submission.[41] AGL instead quoted clause 5.1.4 of Multinet's revised access arrangement, which is different to what appears in the corresponding clause (clause 5.2.4) in SP AusNet's revised access arrangement. The difference relates to an extra word in Multinet's revised proposal that Multinet has now proposed to remove.

The AER considers that the meaning of clause 5.2.4 in SP AusNet's revised proposal is clear.

Rule 119O(1) of the NGR

The AER proposes that clause 5.2.4 be amended to refer to the circumstances in r. 119O(1) of the NGR.

AGL submitted in relation to Multinet's access arrangement proposal, that clause 5.1.4 (which only referred to r. 119O(2) of the NGR) should be replaced with the entirety of r. 119O (r. 1190(1), (2) and

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38 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 7 January 2013, Attachment A.

39 AER, *Draft decision: SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017,* September 2012, pp. 2-4.

40 Section 28(1) of the NGL

41 Email from Monique Smith dated 31 January 2013.

(3)).[42] Multinet's clause 5.1.4 is substantially the same as clause 5.2.4 in SP AusNet's access arrangement proposal, which also only refers to r. 119O(2).

The AER considers r. 119O(3) of the NGR is not relevant as it does not concern who pays for a connection charge. Further, the AER considers that it is not necessary to copy the entirety of r. 119O(1) and (2) into SP AusNet's access arrangement.

The AER considers that this amendment acts to make it absolutely clear that r. 119O(1) also applies. The AER considers that this creates greater clarity and avoids the potential for confusion or disputes. This is consistent with the NGO because it promotes the efficient operation and use of gas services. The AER considers that this approach resolves the concerns raised by AGL.

The AER raised this amendment with SP AusNet. SP AusNet stated that it considers that the existing drafting is satisfactory. Nonetheless, it proposed to insert the phrase 'and the Customer is paying the charges directly under one of the circumstances set out in rule 119O(1)'.[43]

2.5 Revisions

The AER proposes the following revision to make SP AusNet's access arrangement acceptable.

Revision 2.1: insert 'and the Customer is paying the charges directly under one of the circumstances set out in Rule 119O(1),' between 'applies' and 'the charges'.

[42] AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 7 January 2013, Attachment A.

[43] SP AusNet, response to information request FD15a, 7 February 2013.

3 Capital base

The capital base roll forward accounts for the value of SP AusNet's regulated assets over the access arrangement period. The opening capital base value for a regulatory year is rolled forward by indexing it for inflation, adding any conforming capex, and subtracting depreciation and other possible factors (e.g., disposals or customer contributions). Following this process, the AER arrives at a closing value of the capital base at the end of the relevant year. The opening value of the capital base is used to determine the return of capital (regulatory depreciation) and return on capital building block allowances.

The AER is required to make a decision on SP AusNet's opening capital bases as at 1 January 2013 for the 2013–17 access arrangement period. The AER is also required to make a decision on SP AusNet's projected capital base for the 2013–17 access arrangement period. This attachment presents the AER's final decision on these matters.

3.1 Final decision

The AER does not approve the capital base at 1 January 2013 in SP AusNet's revised proposal.

The AER approves SP AusNet's revised proposal that the closing capital base should be indexed by an additional six months compared to the AER's draft decision. However, the AER does not accept SP AusNet's proposed method to make this adjustment. The AER has consulted with SP AusNet about an appropriate approach. SP AusNet agreed to the AER's alternative approach.

After making this adjustment, the AER has determined an opening capital base as at 1 January 2013 of $1275.3 million ($nominal). Table 3.1 sets out the AER's final decision on the capital base roll forward for SP AusNet during the 2008–12 access arrangement period.

Table 3.1 AER's final decision on SP AusNet's capital base roll forward for during the 2008–12 access arrangement period ($million, 2012)

	2008	2009	2010	2011	2012
Opening capital base	1162.7	1186.1	1207.1	1226.1	1254.2
Net capex	70.8	72.4	73.0	82.1	76.3
Less: regulatory depreciation	47.4	51.4	54.0	54.1	55.2
Closing capital base	1186.1	1207.1	1226.1	1254.2	1275.3

Source: AER analysis.
Note: Totals may not add due to rounding.

Based on the approved opening capital base and the AER's final decisions on forecast capex, forecast depreciation and the inflation forecast, the AER has determined a projected closing capital base as at 31 December 2017 of $1661.5 million ($nominal). This is $50.3 million, or 2.9 per cent less than SP AusNet's revised proposal. Table 3.2 sets out the AER's projected capital base roll forward for SP AusNet during the 2013–17 access arrangement period.

Table 3.2 AER's final decision on SP AusNet's projected capital base roll forward during the 2013–17 access arrangement period ($million, nominal)

	2013	2014	2015	2016	2017
Opening capital base	1275.3	1363.3	1449.8	1532.7	1602.7
Net capex	104.9	107.7	108.6	99.2	91.5
Less: straight-line depreciation	48.7	55.3	62.0	67.6	72.7
Indexation	31.9	34.1	36.2	38.3	40.1
Closing capital base	1363.3	1449.8	1532.7	1602.7	1661.5

Source: AER analysis.
Note: Totals may not add due to rounding.

3.2 Revised proposal

In its revised proposal, SP AusNet largely adopted the AER's draft decision. In particular, SP AusNet adopted the AER's draft decision treatment of 2012 capex, provisions and amended regulatory accounting inconsistencies.[44] However, SP AusNet did not adopt the AER's draft decision opening balance at 1 January 2013. SP AusNet proposed that an additional 6 months of indexation is required to transition the capital base values from the ESC's methodology to the PTRM. In its revised proposal, SP AusNet proposed an opening capital base at 1 January 2013 of $1282.1 million. Table 3.3 sets out SP AusNet's proposed roll forward of the capital base for the 2013–17 access arrangement period.

Table 3.3 SP AusNet's proposed capital base roll forward for the 2008–12 access arrangement period ($million, 2012)

	2008	2009	2010	2011	2012
Opening capital base	1153.7	1177.1	1198.2	1217.1	1245.2
Net capex	70.8	72.4	73.0	82.1	76.3
Less: straight-line depreciation	47.4	51.3	54.0	54.1	55.2
Closing asset base	1177.1	1198.2	1217.1	1245.2	1266.3
Six months indexation adjustment					15.7
Opening capital base at 1 January 2013					1282.1

Source: SP AusNet, *Revised proposal roll forward model*, November 2012.

In its revised proposal, SP AusNet projected a closing capital base as at 31 December 2017 of $1711.8 million ($nominal). Table 3.4 sets out SP AusNet's proposed roll forward of the capital base for the 2013–17 access arrangement period.

[44] SP AusNet, *Revised access arrangement proposal chapter 4—capital base and depreciation*, November 2012, p. 8.

Table 3.4 SP AusNet's proposed capital base roll forward for the 2013–17 access arrangement period ($million, nominal)

	2013	2014	2015	2016	2017
Opening capital base	1282.1	1372.4	1464.2	1551.4	1630.9
Net capex	107.0	112.8	112.8	108.6	113.4
Less: straight-line depreciation	48.7	55.3	62.2	67.8	73.3
Indexation	32.1	34.3	36.6	38.8	40.8
Closing capital base	1372.4	1464.2	1551.4	1630.9	1711.8

Source: SP AusNet, *Revised proposal roll forward model*, November 2012.
Note: Totals may not add due to rounding.

3.3 Assessment approach

The AER's approach to assessing the capital base SP AusNet's revised proposal is set out in its draft decision. See section 2.3, attachment 2 of the draft decision for a detailed explanation of the assessment approach.[45]

The AER also took into account submissions received on its draft decision in forming its final decision on SP AusNet's capital base. However, these submissions related mainly to capex and depreciation, which are inputs to the projected capital base at 31 December 2017. Accordingly, these submissions are addressed in the capex attachment (attachment 4) and the depreciation attachment (attachment 6).

3.4 Reasons for decision

The AER is required to make a decision on SP AusNet's proposed capital base roll forward. As part this, the AER must make decisions on specific inputs to the roll forward process. Specifically, the AER must determine:

- the opening capital base at 1 January 2008—this is the base from which the AER rolls forward the capital base to reflect actual capex and forecast depreciation for the 2008–12 access arrangement period. The AER has increased SP AusNet's revised proposal on the capital base at 1 January 2008 by $9.0 million or 0.8 per cent due to a transitional indexation adjustment.
- the opening capital base at 1 January 2013—this is the capital base at the end of the 2008–12 access arrangement period. This in turn will be used for determining the return on capital and depreciation building blocks over the 2013–17 access arrangement period.
- the projected capital base at 31 December 2017—this is the forecast of the closing capital base for the 2008–12 access arrangement period, based on forecast capex and depreciation. The AER has reduced SP AusNet's revised proposal on the projected capital base as at 31 December 2017 by $50.3 million or 2.9 per cent due to the AER's final decisions on forecast capex and forecast depreciation.
- the depreciation approach used to roll forward the capital base from 2013–17 at the next access arrangement review.

[45] AER, *Draft decision: SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017,* September 2012, pp. 11–13.

3.4.1 Opening capital base at 1 January 2008

The AER does not approve SP AusNet's revised proposal on the opening capital base at 1 January 2008. In its revised proposal, SP AusNet proposed to index the 2012 closing capital base by an additional six months of CPI.[46] This is to transition from the ESC's modelling framework to the AER's modelling framework. Specifically, it is to ensure that the capital base is valued in 31 December dollars instead of 1 July dollars. The AER agrees this additional indexation is need, but does not agree with SP AusNet's method for making the adjustment.

The AER consulted with SP AusNet on the method. SP AusNet agrees with the AER's approach. However, this approach increases the opening capital base at 1 January 2008, instead of only increasing the opening capital base at 1 January 2013. The result is that the AER approves an opening capital base at 1 January 2008 higher than what SP AusNet has proposed. The AER's detailed reasons are discussed below.

Having made this adjustment, the AER has determined SP AusNet's opening capital base at 1 January 2008 to be $1162.7 million ($2012).

Transitional indexation adjustment

The AER has adjusted SP AusNet's revised proposal on the opening capital base at 1 January 2008 to include an additional 6 months of CPI indexation. The adjustment is necessary because SP AusNet's capital base was valued in 1 July dollars under the ESC's regulatory modelling. The AER's regulatory modelling requires the capital base to be valued in 31 December dollars when rolling forward the capital base from year to year. Accordingly, for this access arrangement review, the AER has made an additional 6 months indexation adjustment to SP AusNet's capital base for transitioning between regulatory regimes. This adjustment increases SP AusNet's opening capital base at 1 January 2008 by $9.0 million or 0.8 per cent.

In the draft decision, the AER did not accept SP AusNet's proposal to index its closing capital base by an additional six months.[47] The AER determined that the ESC's cash flow timing assumptions suggested that the closing capital base for 2012 was valued at the end of the regulatory year. The AER therefore determined that the closing capital base for 2012 was consistent with the AER's approach. As a result, the closing base in 2012 did not require an additional indexation adjustment. The AER determined that the ESC used CPI as a proxy for inflation of the capital base, and not to reflect a specific price level at a point in time. This is usually the case, because actual CPI is not usually available until several months after the end of the period to which it relates. The AER and the ESC therefore use an earlier 'lagged' CPI as a proxy for actual CPI.

In its revised proposal, SP AusNet presented new information in support of the indexation adjustment. In particular, SP AusNet included documentation from the ESC's initial valuation of the SP AusNet capital base in 1998. This valuation was specified in 1 January 1998 dollars. The ESC then applied:

- 3.5 years of inflation to 1 July 2001 dollars—to determine the opening capital base at 1 January 2003

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[46] SP AusNet, *Revised access arrangement proposal chapter 4—capital base and depreciation*, November 2012, pp. 2–7.
[47] AER, *Draft decision: SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, p. 19–22.

- 5 years of inflation to 1 July 2006 dollars—to determine the opening capital base at 1 January 2008, which the AER has used as a base for its capital base roll forward applying the lagged annual CPI. SP AusNet did not dispute the use of the lagged CPI in the capital base roll forward.

Based on this information, the AER agrees the ESC's modelling valued SP AusNet's capital base in the middle of the regulatory year. In contrast, the AER's regulatory modelling assumes the capital base is valued at the end of the regulatory year. Accordingly, the AER agrees with SP AusNet's revised proposal on the need for a transitional adjustment of six months additional inflation. This adjustment is only necessary to move between the ESC's regulatory modelling and the AER's regulatory modelling. In future access arrangement periods, the adjustment will not be necessary as the capital base will always be valued at the end of the regulatory year.

The method for making the adjustment

The AER does not accept SP AusNet's proposed method for the transitional indexation adjustment. SP AusNet proposed to index the 2012 closing capital base by 6 months of forecast inflation. Instead, the AER has determined an alternative approach. SP AusNet agrees with that approach.[48]

The AER's approach is consistent with the approach the AER used for Jemena in the Victorian electricity re-determination. For this final decision, the AER has made the transitional adjustment by indexing forward the 2008 opening capital base from 1 July 2006 dollars to 31 December 2006 dollars. It has the effect of converting the capital base roll forward for 2008–12 from mid-year dollars to end of year dollars. As part of this, the AER has applied the same 6 years of September to September CPI as was approved in the draft decision. This second step is consistent with SP AusNet's revised proposal. The result of this adjustment is that the closing capital base for the 2008–12 access arrangement period provides an opening capital base as at 1 January 2013, which is consistent with the requirements of the AER's modelling assumptions in the PTRM. The AER's approach reduces the opening capital base at 1 January 2013 by $6.8 million compared with SP AusNet's proposed method for the adjustment.

3.4.2 Opening capital base at 1 January 2013

The AER does not approve SP AusNet's proposed opening capital base as at 1 January 2013. In its revised proposal, SP AusNet adopted the AER's draft decision, including capex and depreciation for determining the opening capital base as at 1 January 2013. In particular, SP AusNet adopted the AER's draft decision on the adjustment for 2012 capex. This followed the ESC's process for final year capex set out in SP AusNet's access arrangement. However, the transitional indexation adjustment to the opening capital base at 1 January 2008 flows through in the capital base roll forward to determine the opening capital base at 1 January 2013. As a result of this adjustment, the AER determines SP AusNet's opening capital base as at 1 January 2013 to be $1275.3 million ($nominal).

3.4.3 Projected capital base at 31 December 2013

The AER does not approve SP AusNet's projected capital base as at 31 December 2017. The AER's forecast of SP AusNet's projected capital base as at 31 December 2017 is $1661.5 million ($nominal). This is a reduction of $50.3 million or 2.9 per cent from SP AusNet's proposal.

This is because of the AER's final decisions on the inputs to the determination of the projected capital base. The AER has amended the following inputs:

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[48] SP AusNet, *Response to AER information request FD14a*, 23 January 2013.

- Reduced SP AusNet's proposed opening capital base as at 1 January 2013 to reflect the changes required in this attachment.
- Reduced SP AusNet's proposed forecast capex allowances by $42.6 million ($nominal) or 7.7 per cent.
- Increased SP AusNet's proposed forecast depreciation allowance by $0.9 million ($nominal) or 0.7 per cent.

The AER approves SP AusNet's revised proposal to use forecast depreciation to establish its opening capital base as at 1 January 2018 at the next access arrangement review.[49] This is consistent with the AER's draft decision.[50] The AER considers the forecast depreciation approach will promote effective incentives in order to promote economic efficiency.[51]

3.5 Revisions

The AER proposes the following revisions to make the revised access arrangement proposal acceptable:

Revision 3.1: Make all necessary amendments to reflect the AER's final decision on the roll forward of the opening capital base for the 2008–12 access arrangement period, as set out in table 3.1.

Revision 3.2: Make all necessary amendments to reflect the AER's final decision on the projected opening capital base for the 2013–17 access arrangement period, as set out in table 3.2.

49 SP AusNet, *Revised access arrangement proposal chapter 4—capital base and depreciation*, November 2012, p. 9.
50 AER, *Draft decision: SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, p. 23.
51 NGL, s. 24.

4 Capital expenditure

This attachment outlines the AER's assessment of SP AusNet's proposed capital expenditure (capex) for 2007–11 and forecast capex for the 2013–17 access arrangement period.

4.1 Final decision

The AER approves SP AusNet's proposed capital expenditure of $354.7 million for 2007–11 as conforming capex.

The AER does not approve SP AusNet's revised capex forecast of $501.9 million ($2012, escalated direct costs) for the 2013–17 access arrangement period as it is not satisfied that it is conforming capex[52] or that the forecast was arrived at on a reasonable basis and the best forecast possible.[53] The AER considers that a capex allowance of $466.1 million ($2012, escalated direct costs) complies with the NGR requirements and proposes to revise SP AusNet's access arrangement accordingly.

4.1.1 Conforming capital expenditure for 2007–11

The AER's draft decision was to approve SP AusNet's proposed $354.7 million ($2012) as conforming capex for the 2007–11 period. SP AusNet's revised proposal included this same net capex forecast amount for this period. The AER received no further submissions on this issue. As such, for the reasons set out in its draft decision[54] the AER approves SP AusNet's proposed net capex of $354.7 million ($2012) for the 2007–11 period as conforming capex.[55]

4.1.2 Conforming capital expenditure for the 2013–17 access arrangement period

For the reasons set out below, the AER does not approve SP AusNet's proposed capex allowance of $501.9 million ($2012, escalated direct costs) as conforming capex for the 2013–17 access arrangement period.[56] The AER considers $466.1 million ($2012, escalated direct costs) net capex is conforming capex and proposes to revise SP AusNet's access arrangement accordingly.

The reasons for the AER's proposed reductions are:

- Mains replacement—The AER considers that the volumes of medium pressure and low pressure to high pressure mains replacement proposed by SP AusNet are greater than that which a prudent service provider acting efficiently would require to meet its safety and regulatory obligations.
- Connections—The AER does not accept SP AusNet's approach to forecasting the number of commercial and industrial abolishments. The AER considers SP AusNet's forecast was not arrived at on a reasonable basis as it incorrectly presumed the number of abolishments was directly tied to the level of economic activity.
- Overheads—The AER considers that using 2011 as the base for projecting overheads forward does not provide a reasonable basis for estimating overheads for the 2013–17. This is because

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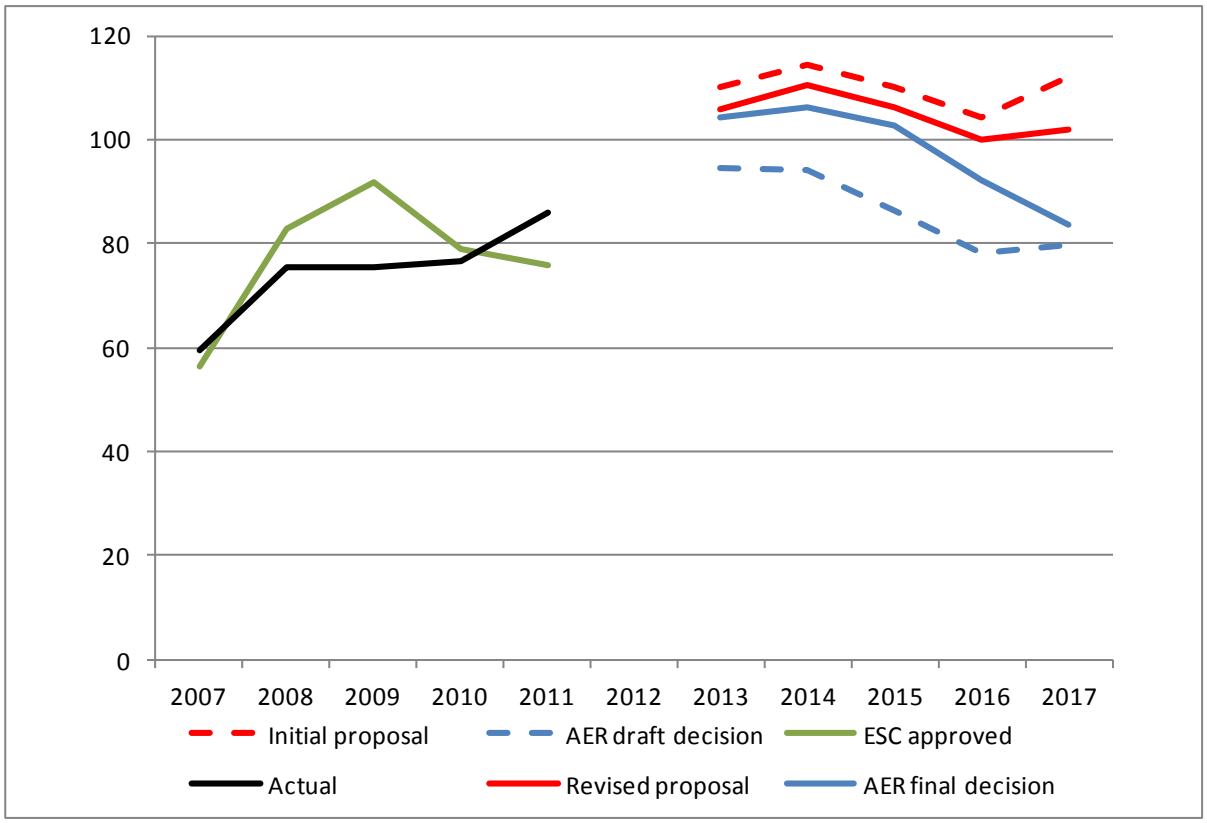
52 NGR, r. 79(1).
53 NGR, r. 74(2).
54 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2 Attachments*, September 2012, p. 25.
55 NGR, r. 77(2).
56 NGR, r. 77(2).

there is no clear trend in overheads expenditure and no certainty over the efficiency of the costs in that year.

Figure 4.1 Comparison of SP AusNet's historical, proposed and approved capex ($million, 2012)



Source: AER analysis

Table 4.1 compares the AER's final decision against SP AusNet's proposals and the AER's draft decision by expenditure category.

Table 4.1 SP AusNet proposed and AER approved capital expenditure for the 2013–17 access arrangement period ($million 2012, escalated direct costs)

Category	SP AusNet initial proposal	AER draft decision	SP AusNet revised proposal	AER final decision
Mains replacement	141.1	68.6	132.9	110.7
Residential connections	182.7	165.1	181.9	176.8
Commercial/industrial connections	19.7	15.6	19.4	16.2
Residential meter replacement	23.7	22.8	23.0	22.7
Commercial/industrial meter replacement	5.2	5.0	5.0	4.9
Augmentation	23.1	22.0	22.2	21.8
IT	55.3	48.6	48.6	48.6

SCADA	4.5	4.2	4.3	4.2
Other	24.4	19.9	20.1	19.7
Gas Extensions-NGEP	2.8	2.8	2.8	2.9
Capital overheads	68.2	57.9	64.2	60.3
Total gross capital expenditure	550.8	432.6	524.6	488.8
Customer contributions	15.5	14.9	21.0	21.0
Government contributions	6.8	6.8	1.7	1.7
Total net capital expenditure	528.5	411.0	501.9	466.1

Source: AER analysis.

Table 4.2 AER approved capital expenditure by category over the 2013–17 access arrangement period ($million 2012, escalated direct costs)

Category	2013	2014	2015	2016	2017	Total
Mains replacement	22.9	24.1	26.3	22.5	14.8	110.7
Residential connections	35.7	35.6	36.4	35.2	34.0	176.8
Commercial/industrial connections	3.2	3.3	3.3	3.3	3.2	16.2
Residential meter replacement	4.7	5.0	4.4	4.3	4.2	22.7
Commercial/industrial meter replacement	0.9	1.0	1.0	1.0	1.1	4.9
Augmentation	6.0	5.9	6.7	1.0	2.2	21.8
IT	13.6	13.0	6.9	7.5	7.6	48.6
SCADA	0.9	0.8	0.9	0.8	0.8	4.2
Other	2.5	4.1	4.7	4.6	3.7	19.7
Gas Extensions-NGEP	1.5	1.0	0.1	0.1	0.0	2.9
Capital overheads	12.1	12.2	12.2	12.0	11.8	60.3
Total gross capital expenditure	104.1	106.1	102.9	92.3	83.5	488.8
Customer contributions	4.0	4.1	4.2	4.3	4.4	21.0
Government contributions	0.0	1.7	0.0	0.0	0.0	1.7
Total net capital expenditure	100.1	100.3	98.7	88.0	79.1	466.1

Source: AER analysis.
Note: This table includes the effects of the AER's adjustments to labour and material escalators

4.2 Revised proposal

2013–17 access arrangement period

SP AusNet's revised proposal forecasted total net capex of $501.9 million ($2012, escalated direct costs) for the 2013–17 access arrangement period. This is a reduction of $26.7 million ($2012, escalated direct costs) from SP AusNet's initial proposal of $528.5 million ($2012, escalated direct costs). The major differences between SP AusNet's initial and revised proposal are:

- Mains—SP AusNet adopted the AER's draft position which removed the expenditure for a component of material specific mains replacement and it revised down its forecast of service renewals. SP AusNet revised the suburb composition of volumes within its low pressure to high pressure mains replacement resulting in a higher proposed total program expenditure.
- Connections—SP AusNet considered the AER did not account for the relationships between economic activity, network size and the abolishment rate when forecasting the expected numbers of abolishments. SP AusNet proposed a new methodology for residential connections, which incorporated some of the AER's findings in its draft decision. SP AusNet maintained its initial proposal for industrial and commercial connections.
- IT—SP AusNet adopted the AER's draft position, which reduced the labour and contingency costs across SP AusNet's IT program and removed capex for NECF.
- Overheads—SP AusNet largely adopted the AER's methodology, apart from differences in the choice of base year and the use of unescalated capex as the base to which adjustments for variable costs and labour escalation are applied.

Table 4.3 SP AusNet revised proposal for conforming capital expenditure 2013–17 ($million 2012, escalated direct costs)

Category	2013	2014	2015	2016	2017	Total 2013–17
Mains replacement	23.2	26.1	26.7	27.1	29.7	132.9
Residential connections	36.0	36.5	37.6	36.5	35.3	181.9
Commercial/industrial connections	3.5	3.8	4.0	4.0	4.1	19.4
Residential meter replacement	4.8	5.1	4.5	4.4	4.3	23.0
Commercial/industrial meter replacement	0.9	1.0	1.0	1.0	1.1	5.0
Augmentation	6.1	6.0	6.9	1.0	2.3	22.2
IT	13.6	13.0	6.9	7.5	7.6	48.6
SCADA	0.9	0.8	0.9	0.8	0.8	4.3
Other	2.5	4.2	4.8	4.8	3.8	20.1
Gas Extensions-NGEP	1.5	1.0	0.1	0.1	0.0	2.8
Overheads	12.6	12.8	12.9	12.9	13.0	64.2
GROSS TOTAL	105.7	110.4	106.3	100.1	102.1	524.6
Customer contributions	4.0	4.1	4.2	4.3	4.4	21.0

Government contributions	0.0	1.7	0.0	0.0	0.0	1.7
NET TOTAL	101.7	104.6	102.0	95.8	97.7	501.9

Source: SP AusNet revised proposal.

4.3 Assessment approach

The AER's approach to assessing SP AusNet's proposed capex is set out in its draft decision. See Attachment 2 of the AER's draft decision for a detailed explanation of the assessment approach.[57]

The AER took into account SP AusNet's responses to information requests, the report from the AER's engineering consultant Zincara and submissions received in relation to its draft decision in forming its final decision on SP AusNet's proposed capex. The AER received submissions relevant to its capex assessment from:

- Hon. Michael O'Brien MP—Minister for Energy and Resources
- Energy Users Coalition of Victoria
- Origin Energy (Vic) Pty Limited

4.4 Reasons for decision

The AER applied its assessment approach and concluded that SP AusNet's forecast capex for 2013–17 is not conforming capex[58] and the forecasts were not arrived at on a reasonable basis or the best forecast possible.[59] The AER's reasons for reaching this conclusion are set out in detail in the sub sections below. Accordingly, the AER proposes to replace SP AusNet's capex allowance with $475.9 million ($2012, escalated direct costs) net capex for the 2013–17 access arrangement period.

Table 4.4 shows the AER's proposed capex for the 2013–17 access arrangement period.

The numbers in Section 4.4 are escalated by applying SP AusNet's labour and material escalation. This is to allow comparison between SP AusNet's proposal and the AER's methodological changes and other adjustments. As such, these numbers are different to those presented in section 4.1, which applies the AER's decision on labour and material escalation. For the final AER proposed amounts which include these adjustments see Table 4.1. The AER's assessment of labour and material cost escalation is in Appendix A.

Table 4.4 AER final approved capital expenditure by category over the 2013–17 access arrangement period ($million 2012, escalated direct costs)

Category	2013	2014	2015	2016	2017	Total
Mains replacement	23.1	24.6	27.0	23.3	15.4	113.5
Residential connections	36.0	36.2	37.3	36.3	35.2	181.1
Commercial/industrial connections	3.2	3.3	3.4	3.4	3.3	16.6

[57] AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2 Attachments*, September 2012, p. 32.
[58] NGR, r. 79(1).
[59] NGR, r. 74(2).

Residential meter replacement	4.8	5.1	4.5	4.4	4.3	23.0
Commercial/industrial meter replacement	0.9	1.0	1.0	1.0	1.1	5.0
Augmentation	6.1	6.0	6.9	1.0	2.3	22.2
IT	13.6	13.0	6.9	7.5	7.6	48.6
SCADA	0.9	0.8	0.9	0.8	0.8	4.3
Other	2.5	4.2	4.8	4.8	3.8	20.1
Gas Extensions-NGEP	1.6	1.1	0.1	0.1	0.0	2.9
Capital overheads	12.2	12.3	12.4	12.2	12.1	61.3
Total gross capital expenditure	104.8	107.6	105.2	94.8	86.1	498.6
Customer contributions	4.0	4.1	4.2	4.3	4.4	21.0
Government contributions	0.0	1.7	0.0	0.0	0.0	1.7
Total net capital expenditure	100.8	101.8	101.0	90.5	81.7	475.9

Source: AER analysis.
Note: This table includes SP AusNet's proposed labour and material escalators

The AER's detailed consideration of each capex category is outlined below.

4.4.1 Mains replacement

SP AusNet proposed five programs under mains replacement. The AER's final decision for each is summarised below with the AER's reasons set out in the next section.

For **low pressure (LP) to high pressure (HP) mains replacement**, the AER does not approve SP AusNet's proposed expenditure on the basis that the volume is not prudent and efficient[60]. The volumes proposed by SP AusNet exceed those which SP AusNet has demonstrated are necessary to meet its safety and regulatory obligations[61] over the current period. The AER considers that these obligations will not materially change in the 2013–17 access arrangement period. In addition, mains risk is unlikely to change in the 2013–17 access arrangement period. The AER considers $79.9 million ($2012, unescalated direct costs, excluding overheads) for low pressure to high pressure mains replacement expenditure is conforming capex.[62]

The AER's final decision is to not approve SP AusNet's proposed **medium pressure mains replacement** expenditure on the basis that is not justified[63] and not prudent and efficient.[64] The volumes proposed for medium pressure mains replacement are greater than those that a prudent service operator would be expected to undertake. The AER considers $22.9 million ($2012, unescalated direct costs, excluding overheads) for medium pressure mains replacement expenditure is conforming capex.

60 NGR, r.79(1).
61 NGR, r.79(2)(c)(i)-(iii).
62 NGR, r. 79(1)(a).
63 NGR, r. 79(2)(c)(i)
64 NGR, r. 79(1)(a)

For the **material specific mains replacement program** the AER's final decision is to approve a total of $0.5 million ($2012, unescalated direct costs, excluding overheads) for the 2013–17 access arrangement period as conforming capex[65].

For the **reactive mains and service replacement program**, the AER's final decision is to not approve SP AusNet's proposed $5.8 million ($2012, unescalated direct costs, excluding overheads) of capex on the basis that the forecast for the volume of service renewals is not the best estimate possible in the circumstances[66] and not prudent and efficient[67]. The AER considers $5.5 million ($2012, unescalated direct costs, excluding overheads) for **reactive mains and service replacement** for the 2013–17 access arrangement period is conforming capex.[68]

For **a specific minor mains replacement program**, the AER approves $0.2 million ($2012, unescalated direct costs, excluding overheads) for the 2013–17 access arrangement period as conforming capex[69]. SP AusNet adopted the AER's draft decision. The AER received no further information and for the reasons in the draft decision considers $0.2 million ($2012, unescalated direct costs, excluding overheads) to be conforming capex[70].

The AER's final decision is set out in Table 4.5 and Table 4.6. The individual programs are discussed below.

Table 4.5 Final decision—Mains replacement component programs[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
LP to HP	15.8	17.4	17.8	18.1	10.7	79.9
Medium pressure	5.5	4.8	6.9	2.9	2.7	22.9
Material specific	0.0	0.5	0.0	0.0	0.0	0.5
Reactive mains and service replacement	1.1	1.1	1.1	1.1	1.1	5.5
Specific minor mains replacement	0.0	0.2	0.0	0.0	0.0	0.2
Total	**22.7**	**23.9**	**25.9**	**22.1**	**14.5**	**109.1**

Source: AER analysis
(a) Unescalated direct costs excluding overheads

Table 4.6 Final decision—Mains replacement[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	23.8	24.5	25.6	25.3	28.1	127.4
AER draft decision	16.2	14.7	13.0	10.9	11.9	66.8
SP AusNet revised proposal	22.8	25.3	25.6	25.7	27.9	127.4
AER final decision	22.7	23.9	25.9	22.1	14.5	109.1

65 NGR, r.79(1)(a).
66 NGR, r.74(2)(b).
67 NGR, r.79(1)(a).
68 NGR, r.79(1)(a).
69 NGR, r.79(1)(a).
70 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, p. 18; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p.51.

Source: AER analysis
(a) Unescalated direct costs excluding overheads

LP to HP mains replacement

Summary

The AER's final decision is to not accept SP AusNet's revised proposal for low pressure pipe replacement expenditure of $87.6 million ($2012, unescalated direct costs, excluding overheads) on the basis that the forecast volume is not prudent and efficient.[71] The volumes proposed by SP AusNet exceed those which SP AusNet has demonstrated are necessary to meet its safety and regulatory obligations[72] over the current period. The AER considers that these obligations will not materially change in the 2013–17 access arrangement period. In addition, mains risk is unlikely to change in the 2013–17 access arrangement period.

In relation to unit rates, the AER approves SP AusNet's proposed unit rates for the low pressure mains replacement program. For the reasons set out in the draft decision[73], the AER considers the unit rates to be prudent and efficient[74].

The AER considers that 415 kilometres of mains replacement at a cost of $79.9 million ($2012, unescalated direct costs, excluding overheads) is conforming capex[75].

In its initial proposal SP AusNet proposed capital expenditure of $86.0 million ($2012, unescalated direct costs, excluding overheads) for its LP mains replacement program for the 2013–17 access arrangement period. It proposed increasing the volume of LP to HP mains replacement from an annual average of 83 km in the 2008–12 access arrangement period to an annual average of 90 km in the 2013–17 access arrangement period. SP AusNet forecast an average unit cost of $193/metre ($2012, unescalated direct costs, excluding overheads)[76].

In the draft decision, the AER did not approve the volume in SP AusNet's initial proposal. The AER considered that SP AusNet could continue to manage its safety and regulatory obligations for the 2013–17 access arrangement period by delivering 365 km, which is the 2008–11 annual average volume actually completed by SP AusNet, applied to the five years of the access arrangement period[77]. These volumes were below the volumes that the ESC had approved for that access arrangement period and which had been factored into the tariffs paid by the consumers for that period[78]. While the ESC approved volume was not completed, SP AusNet met its safety and regulatory obligations for the 2008–12 access arrangement period[79].

The AER also made provision for a pass through, recognising that circumstances may change. For example, new information or conditions may arise which could lead to a change in the optimal mix of programs employed to address the safety risks associated with mains. The pass through allowed for

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71 NGR, r.79(1)
72 NGR, r.79(2)(c)(i)-(iii)
73 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, pp. 3-5; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 42-43.
74 NGR, r.79(1)(a)
75 NGR, r.79(1)(a)
76 SP AusNet, *Access Arrangement Information*, March 2012, SP AusNet GAAR Capital Expenditure Forecast Model.xls
77 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, p. 10; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 47.
78 The ESC approved 360 km for 2008-11 (450 km for 2008–12).
79 SP AusNet, *Response to information request 8*, received 18 June 2012, p. 4.

SP AusNet, after it has delivered the total historical volume, to apply for additional expenditure for mains replacement[80].

In relation to unit rates, SP AusNet provided cost build ups for unit rates for suburbs where work had not previously been undertaken and used a weighted average unit rate of the work completed in 2008–11 for suburbs where work had been undertaken. Based on the advice of Zincara, in the draft decision the AER accepted SP AusNet's revised unit rates. The AER considered that the cost build ups for the unit rates were reasonable against industry standards and that the use of actual historical unit rates provided a good estimate of the likely rates in the 2013–17 access arrangement period[81].

The AER assessed that SP AusNet has prioritised low cost mains replacement areas in the past and so set an average unit rate of $167/metre ($2012, unescalated direct costs, excluding overheads), prioritising low to high cost mains up to the historical volume. The AER approved a total expenditure of $60.9 million ($2012, unescalated direct costs, excluding overheads)[82].

In its revised proposal SP AusNet adopted the AER's draft decision for unit rates. SP AusNet did not accept the AER's draft decision in relation to volumes and proposed a volume of 451 km at a cost of $87.6 million ($2012, unescalated direct cost, excluding overheads). It did not accept the AER's draft decision of making a pass through available[83].

Following the AER's draft decision, Origin submitted that it 'supports the AER's decision to base capital expenditure allowances for low pressure mains replacement on volumes achieved in the current period' and that it 'support[s] the cost pass through arrangement'. Origin continued that it considers that the 'pass through arrangement promotes the interests of the consumer, with an appropriate balance between the need to maintain the network and to limit customers' exposure to inaccurate forecasts'[84].

The Energy Users Coalition of Victoria (EUCV) submitted that all the distribution businesses proposed significant mains replacement programs in the 2008–12 access arrangement period yet underspent their allowances. The EUCV stated that it considered the AER's approach of using historical data for setting mains replacement in the 2013–17 access arrangement period was sensible and supported the approach[85].

The EUCV further submitted that it considers the main driver of gas main replacement is the leakage of gas from distribution gas mains and that the cost of unaccounted for gas (UAFG) is primarily borne by consumers. The AER considers that UAFG is a driver of mains replacement but it is not a primary driver. The primary drivers are mitigating the safety risk associated with gas leaks and securing reliability of supply.

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80 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, pp. 10-11; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 48.

81 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, pp. 3-4; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 42-43.

82 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, p. 11; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 49.

83 SP AusNet, *Revised Access Arrangement Proposal*, November 2012, pp. 35-37.

84 Origin Energy, *Submission to the AER: Draft decision and SP AusNet, Envestra and Multinet revised access arrangement proposals*, 7 January 2013.

85 Energy Users Coalition of Victoria, *Submission to the AER: Draft decision and SP AusNet, Envestra and Multinet revised access arrangement proposals*, January 2013, p.17.

The Honourable Michael O'Brien, in his capacity as Minister for Energy and Resources, 'support[ed] the approach taken by the AER in its draft decision to consider the level of historical expenditure and to include a pass through event for low pressure to high pressure mains replacement'[86]. The Minister further noted that 'the distributors have undertaken less pipeline replacement than was forecast by the Essential Services Commission. This has manifested itself in cost savings for distributors and improved profitability...'.[87]

Low pressure volumes

The AER's final decision is to not approve SP AusNet's proposed expenditure for mains replacement volume of 451 kilometres.

The AER considers that 415 kilometres of low pressure to high pressure block rollout mains replacement is prudent and efficient.[88] This volume is higher than the approved volume in the draft decision because the AER has taken account of the volume of mains replacement undertaken in 2012.

In arriving at this decision, the AER has taken into account the following matters:

- The inclusion of the mains replacement program in the Asset Management Plan, Mains Replacement Plan and the Gas Safety Case,
- The safety risk of the low pressure network in the 2013–17 period relative to the 2008–12 period,
- The impact of the GFC and Envestra's chosen level of risk on the use of historical volumes for forecasting efficient and prudent volumes in the 2013–17 access arrangement period,
- Consumer funding of volumes of mains approved but not undertaken, and
- 2012 volumes and reprioritisation.

The inclusion of the mains replacement volumes in the Asset Management Plan, Mains Replacement Plan and Gas Safety Case

As set out in its draft decision, the AER recognises that the distribution businesses have certain safety and regulatory obligations[89].

Each distribution business has a general statutory obligation under s.32 of the *Gas Safety Act* to 'manage and operate each of its facilities to minimise as far as practicable' the hazards and risks to the safety of the public and customers arising from gas, interruptions to the conveyance or supply of gas and the reinstatement of an interrupted gas supply. The obligation also includes minimising hazards and risks of damage to public property and the property of customers arising from gas.

The *Gas Safety Act* requires a distributor in deciding what is 'practicable' to have regard to a number of factors: the severity of the hazard or risk in question; the state of knowledge about the hazard or

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86 Minister for Energy and Resources, *Submission to the AER: Draft decision and SP AusNet, Envestra and Multinet revised access arrangement proposals*, 14 January 2013, p.2.

87 Minister for Energy and Resources, *Submission to the AER: Draft decision and SP AusNet, Envestra and Multinet revised access arrangement proposals*, 14 January 2013, p.2.

88 NGR, r. 79(1)(a).

89 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, pp. 7-8,10; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 45-46.

risk and any ways of removing or mitigating the hazard or risk; the availability and suitability of ways to remove or mitigate the hazard or risk; and the cost of removing or mitigating the hazard or risk.

The distribution businesses must submit a Gas Safety Case (or a revised Safety Case) to the ESV every five years. A Gas Safety Case may be submitted sooner if considered appropriate having regard to developments in technical knowledge or an assessment of relevant hazards[90]. A Safety Case sets out the systems and processes the distribution business has in place to identify network risk and mitigate the identified risk. The ESV must accept a safety case if it is satisfied that it is appropriate and it complies with the *Gas Safety Act* and regulations[91]. The distribution businesses must comply with the accepted Gas Safety Case[92] and compliance is monitored by the ESV[93].

SP AusNet submitted that its mains replacement methodology and approach underpins the Gas Safety Case accepted by the ESV. It submitted that its mains replacement approach has been used to identify and prioritise the low pressure mains replacement program[94]. SP AusNet submited that the low pressure mains replacement program forms part of its Asset Management Strategy, Asset Management Plan and has been identified as the key control measure to mitigate the incidence of leaks on SP AusNet's distribution network in its Gas Safety Case[95].

Envestra, however, submitted that as the mains volumes are set out in the Asset Management Plan and Mains Replacement Plan and that as these are referred to in their Gas Safety Case, then by reason of this reference, volumes are a mandatory component of the Gas Safety Case[96].

Taking into account the information before it, including the past performance of all distributors and their records of compliance with their Gas Safety Cases, the AER considers that the specification of the mains replacement volumes in the Gas Safety Case does not provide a basis for concluding that volumes in excess of historical volumes are justifiable.[97] While the volumes referred to may constitute a key control measure to mitigate risk depending on the circumstances, they are but one component of the Gas Safety Case. LP to HP mains replacement is one of a mix of options available to a gas distributor for managing mains risk, and this mix is open to change.

In particular, the AER is not satisfied that the mains replacement volumes referred to in the Gas Safety Case are mandatory such that they are 'necessary'[98] or prudent and efficient.[99]

In reaching this view, the AER has considered the following matters.

In assessing a distribution business' Gas Safety Case, the AER understands from discussions with the ESV that the ESV has regard to whether the risks are appropriately identified and highlighted, and that appropriate controls are in place to deal with the identified risks. The AER considers that the volume of mains replacement in the Asset Management Plan, which forms part of the Gas Safety Case, is indicative of the path towards achieving the end date for removal of cast iron and unprotected steel mains from the low pressure network. The AER also considers that in assessing compliance with the Gas Safety Case the ESV is primarily concerned with whether the distribution

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90 *Gas Safety Act 1997,* ss.45-6.
91 *Gas Safety Act 1997* s.40.
92 *Gas Safety Act 1997* s.44(2)
93 *Gas Safety Act 1997* s.10
94 SP AusNet, *Revised Access Arrangement Proposal*, November 2012, p.30.
95 SP AusNet, *Revised Access Arrangement Proposal*, November 2012, p.30.
96 Envestra, *Revised Access Arrangement Information, November 2012, Attachment 7.7 Response to Draft Decision—Capital Expenditure (public)*, p.6.
97 NGR, r. 79(2)
98 NGR, r 79(2).
99 NGR, r. 79(1).

business has maintained the network risk to the minimum practicable. The distribution business have available to them a suite of controls to mitigate network risk and it appears that the ESV has regard to a number factors, taken together, in reaching a view on compliance. Whether the annual volume of mains replacement is undertaken for a particular year, in isolation, would not be determinative of compliance. This is illustrated by the fact (discussed further below) that none of the distribution businesses has to date been assessed as non-compliant with their gas safety cases notwithstanding that none has met the mains replacement volumes set in their respective gas safety cases.[100]

Envestra's understanding of the ESV's assessment process appears to accord with the AER's understanding of the ESV's approach.. In response to the AER's question of whether the change in Envestra's volumes between initial and revised proposals had been approved by the ESV, Envestra stated '[t]he ESV was primarily concerned with the process followed by Envestra to prioritise its mains replacement program to address risk rather than approving the outcomes from this process (that is, the ESV did not approve/set the volumes on a suburb by suburb basis)'.[101]

As noted above, none of the gas distribution businesses has consistently met its approved and funded volumes as set out in the respective mains replacement plans over the 2008–12 access arrangement period:

- Envestra has not completed the volume specified in its Gas Safety Case in any of the five years of the access arrangement period and has not met its total approved and funded volumes for the access arrangement period[102]. This includes volumes completed after Envestra received the ESV letter[103].
- Multinet has not completed the volume specified in its Gas Safety Case in any of the five years of the access arrangement period and has not met its total approved and funded total volumes for the access arrangement period[104].
- SP AusNet has not completed the volume specified in its Gas Safety Case in four of the five years of the access arrangement period and has not met its total approved and funded total volumes for the access arrangement period[105].

Notwithstanding this, to date, the ESV has not assessed any of the gas distribution businesses as non-compliant with their Gas Safety Cases.

In practice, the distribution businesses appear to address the Gas Safety Case requirements through a number of other measures, such that mains replacement is not the sole measure to mitigate mains risk. By virtue of adjusting the mix of programs undertaken, the annual volume of mains and the total volume of mains over an access arrangement period may be subject to change.

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100 AER, VIC gas access arrangement review 2012—capital expenditure—note for file—- Discussions with ESV re mains replacement, AER13/1094, 7 March 2013.

101 Envestra, *Response to information request FD11a*, received 17 January 2013, p.2.

102 For 2008-11 volumes—Envestra, *Access Arrangement Information*, March 2012, Regulatory Information Notice, Template 2(a)-Non-demand capex incl. RPM, Envestra, For 2012 volume—Envestra, Email from Ralph Mignone received 14 January 13, ESC, Review of Gas Access Arrangements 2008-2012 Variations to the Access Arrangements of Envestra (Victoria) and Envestra (Albury): ESC Appeal Panel Decision EI AND E2 OF 2008, 25 March 2009, p.13.

103 The ESV letter to Envestra stated that it must complete in the 2008–12 access arrangement period the 570 km of mains replacement which the ESC had approved.

104 For 2008-10 volumes—Multinet, *Access Arrangement Information*, March 2012, Regulatory Information Notice, Template 2(a)-Non-demand capex incl. RPM, For 2012 volume—Multinet, Email from Mark Beech, received 17 January 2013, For 2011volume—Multinet Gas Distribution Partnership, Regulatory Accounting Statements 31 December 2011, p.12, ESC, *Gas Access Arrangement Review 2008-2012 Final Decision – Public Version*, 7 March 2008, p.335.

105 SP AusNet*, Response to AER draft decision: Chapter 2 – Capex*, 9 November 2012, p.27.

- SP AusNet states that '[t]he mains replacement program forms part of the control measures to minimise' the risk associated with gas leaks on the network[106]. SP AusNet stated that it meets its safety obligations in relation to distribution mains through a mixture of the proactive mains replacement program, reactive mains replacement programs and proactive and reactive maintenance programs.[107] The two reactive mains replacement programs involve the miscellaneous replacement program within the LP mains replacement program and the reactive mains services replacement program.[108] The proactive maintenance program involves:
  - mains and service renewals
  - leakage survey and resulting leak repairs
  - cathodic protection of steel mains
  - valve maintenance
  - marker post installation/maintenance
  - exposed pipe maintenance
  - syphon maintenance
  - internal service maintenance
  - cathodic protection, valve, syphon and internal service maintenance reduce the degradation of the mains, enabling their asset life to be prolonged.

  The reactive maintenance program involves:

  - leak repairs (identified through public reports) on mains, meters and services
  - syphon pumping (from water ingress on the low pressure network).
- Multinet[109] and Envestra[110,111] also use a mix of proactive and reactive programs to mitigate the risk associated with their mains.

The distribution businesses align their practices with the longer term objective of removing the cast iron and unprotected steel mains from the network. However, there are many variables which are taken into consideration when arriving at the five year forecast of the volume of mains replacement. These include the condition of the mains and the associated network risk (and the assumptions about conditions which are fed into models to arrive at replacement rates), the current financial environment and competing capex priorities. Given the changeable nature of these variables, it is likely that the annual volumes over the entire planned replacement period will change, as they have done over the 2008-12 period.

- To formulate the five year mains replacement plan, SP AusNet submits that it takes into consideration indicators of network condition, economic and work execution issues. SP AusNet

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106 SP AusNet, *Response to information request 8*, received 18 June 2012.
107 SP AusNet, *Response to information request 8 of 8 June 2012*, received 18 June 2012, p. 4.
108 This captures the cost of urgent mains repairs, which are generally under 20 metres – see. SP AusNet, *Response to information request 8 of 8 June 2012*, received 18 June 2012, p. 5.
109 Multinet, *Access Arrangement Information: Appendix D-1 Asset Management Plan*, 30 March 2012, pp. 64–65.
110 Envestra, *Response to information request 8*, received 26 June 2012, p. 7.
111 Envestra, *Response to information request 8*, received 26 June 2012, p.7, Attached letter to ESV/Attachment A, p. 4.

states that it assesses four key criteria: age, LIR, technical life, and economic drivers[112]. It also takes into consideration:[113]

- works sequencing—some areas cannot be replaced until other areas are completed
- customer impacts—avoidance of concentrated works in one area to avoid undesirable customer interruptions and disturbance
- labour utilisation—work is spread across areas to support continuous labour use at the different depots.

SP AusNet's end date of 2025 and annual volumes appear to be the consequence of a chosen mains replacement rate, rather than the choice of an end date driving the mains replacement volume. SP AusNet states that on the basis of planned renewal rates it expects to decommission the whole LP network by 2025[114]. This suggests that if SP AusNet altered the inputs into its model which determines its renewal rate, the end date would be changed.

Envestra similarly indicated that it considers the availability of funding, the impact on consumers[115] and workforce mobilisation[116].

Further, the businesses have indicated that they have only developed firm plans of where and what volume of mains replacement in the year before they expect to carry out the works. This indicates that notwithstanding the volumes written in an Asset Management Plan or an Asset Management Strategy or a Gas Safety Case, the annual volumes of mains replacement in practice is likely to be subject to change over the five year access arrangement period.

- SP AusNet indicated that it only has a firm plan of volumes for 2013, with the 2014–17 volumes being estimates only.[117]
- This is similar to Multinet, which stated that the Asset Management Plan, which references the mains replacement volumes, is not 'an approved program for specific work....[and that] inevitably, actual projects and programs will differ from this plan'.[118] Further, Multinet stated that:[119]

> Although the planning process normally covers five years (six years in this plan), experience has shown that the most efficient outcome for capital projects is obtained by an annual planning process at which the five year plan is reviewed in the light of the latest performance information, load forecasts and failure history.

Multinet indicated that 'annual safety risk modelling is necessary due to the unpredictability of problem areas arising [and that] [a] rigid long-term plan will result in sub-optimal replacement'. Multinet stated that 'the safety risk projects within the five year plan are reviewed each year based on the previous year['s] failure history and [the] ranking may change within the plan period'.[120]

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112 SP AusNet, *Revised Access Arrangement Proposal*, November 2012, p.29.
113 SP AusNet, *Response to AER draft decision*, 9 November 2012, Appendix 2.C, SP AusNet—ESV Additional Information 31072012, p.3.
114 SP AusNet, *Access Arrangement Information*, March 2012, Appendix 5J.3, p.93; SP AusNet, *Access Arrangement Information*, March 2012, Appendix 5A, p.57.
115 Envestra, *Access Arrangement Information, March 2012, Attachment 7.4 Mains Replacement Plan*, pp.17-19.
116 Envestra, *Access arrangement Information*, March 2012, Mains Replacement Strategy, p.10
117 SP AusNet, *Response to AER draft decision*, 9 November 2012, Appendix 2.C, SP AusNet—ESV Additional Information 31072012, p.3.
118 Multinet, *Access Arrangement Information*, March 2012, Appendix 5.B Asset Management Plan, p.14
119 Multinet, *Access Arrangement Information*, March 2012, Appendix 5.B Asset Management Plan, p.14
120 Multinet, *Access Arrangement Information*, March 2012, Appendix 5.B Asset Management Plan, p.124

- In June 2012 Envestra submitted, with respect to annual volumes, that it: [121]

> does not have regulatory or legal obligations to replace a defined length of mains each year. ... Envestra's legal and regulatory obligations are focussed on providing for the safe and reliable supply of gas, which Envestra has achieved over the current regulatory period. Mains replacement is only one means of maintaining a safe and reliable gas supply.

This response was made by Envestra in the following context: "Envestra is obliged to undertake the volume of mains replacement approved by the ESV and set out in our mains replacement plan (albeit with some limited discretion over timing so long as the safety of the network is not compromised)".[122]

At that time Envestra also submitted, and the AER acknowledges, that an appropriate level of mains replacement is an important longer term risk mitigation tool.[123]

The businesses have also indicated that mains replacement is a discretionary program. This categorisation necessarily implies that the business is not locked into delivering an annual volume which has been set five years in advance.

Both Multinet[124] and Envestra have indicated that the mains replacement program is discretionary.

- Implicit in Envestra's assessment of its mains replacement risk is a level of discretion in replacing the mains.[125]
- Multinet includes its mains replacement program under its list of discretionary programs in its Asset Management Plan[126].

The end date for removal of low pressure mains from the network is included in the Asset Management Plans of each of the businesses, which are regularly updated. As the Asset Management Plan is referenced in the Gas Safety Case, updating of the Asset Management Plan also requires that the Gas Safety Case is updated and approved by the ESV. The AER notes that SP AusNet has revised its mains replacement volumes in the past both with respect to annual volumes and the end date for completion of mains replacement and Multinet has indicated an intention of doing so in the future:

- In the 2003–07 access arrangement period SP AusNet proposed replacing all LP mains within 16 years, yielding a completion date of 2023[127]. In the 2008–12 access arrangement period SP AusNet proposed replacing all cast iron LP mains by 2017 and all LP mains by 2026[128]. In the 2013–17 access arrangement period, SP AusNet proposed replacing all LP mains by 2025 and is silent on its commitment to replace all cast iron mains by 2017[129].
- Multinet stated that at the time of introducing the LP to HP mains replacement program in 2003, a 30-year program was planned. However, Multinet stated that with regard to the reduced volumes undertaken in the current period, it 'is not prosing to "catch up" the shortfall

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121 Envestra, *Response to information request 8*, received 8/6/12, Question7, p.7
122 Envestra, Email to AER, 'Information disclosure for mains replacement', 21 February 2013.
123 Envestra, *Response to information request 8*, received 8/6/12, Question7, p.7
124 Multinet, *Access Arrangement Information*, March 2012, AMP, p.138
125 Envestra, *Access Arrangement Information*, March 2012, 120330 Attachment 7.4 Mains Replacement Plan (confidential), p.31.
126 Multinet, Access Arrangement Information, March 2012, Asset Management Plan, p.138.
127 ESC, *Review of Gas Access Arrangements*, Final Decision, October 2002, p.118.
128 ESC, Gas Access Arrangement Review 2008-2012 Draft Decision 28 August 2007, p.264.
129 SP AusNet, Access Arrangement Information, March 2012, p.107, Appendix 5A Asset Management Strategy, pp.70,73, Appendix 5J.3 Mains and Services Strategy, p.93.

in the current period [and that] [a]ny decision to “catch up” the program or simply extend it will be made at a later time'[130] Furthermore, Multinet state that '[t]his strategy ... is unlikely to be achieved on schedule'[131]

- The AER notes that SP AusNet's Gas Safety Case is due for renewal in May 2015. Envestra's Gas Safety Case is due for renewal in August 2015 and Multinet's is outstanding from 2009 and yet to be finalised.

For the above reasons the AER is not satisfied that an annual volume of mains replacement as referred to in the Gas Safety Case of SP AusNet is mandatory as the AER is not satisfied that it is necessary and nor, therefore, prudent and efficient.[132] The volumes proposed by SP AusNet exceed those which SP AusNet has demonstrated are necessary to meet its safety and regulatory obligations over the current period. [133]

The safety risk of the low pressure network in the 2013–17 period relative to 2008–12 period.

As stated in the draft decision, the AER considers that SP AusNet is currently meeting its safety and reliability obligations while delivering a lower volume of mains replacement than approved by the ESC[134]. The AER has no evidence to indicate otherwise. As noted above, the ESC approved 450 kilometres of mains replacement which was factored into tariffs for the 2008–12 access arrangement period. For that period SP AusNet instead completed 415 km. For that period, there is no record of non-compliance with the Gas Safety Act.

Based on the information provided by SP AusNet, Zincara advises that the low pressure mains risk is unlikely to materially change in the 2013–17 access arrangement period relative to the 2008–12 access arrangement period[135].

Zincara considered the indicators generally accepted by industry as the best measures of mains deterioration. The indicators are mains leaks, breaks and water in mains[136].

Zincara assessed that the risk level of the low pressure network is likely to remain around the levels experienced in 2008–12. Zincara's advice is that SP AusNet should be able to manage the risk associated with the low pressure network through the continuation of the same mains replacement rate as in 2008–12 together with other risk mitigation programs including reactive replacement and repair, leakage survey and syphoning[137].

The AER requested that SP AusNet re-run its model using the AER approved volume of 83 kilometres per annum compared with SP AusNet's proposed volume of 90 kilometres per annum. The AER notes that the LIR increases minimally in 2017 with the lower volume. Zincara assesses that this difference is not material[138].

The AER accepts Zincara's analysis and considers that SP AusNet should be able to remain compliant with its safety and regulatory obligations in the 2013–17 access arrangement period by

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130 Envestra, *Access Arrangement Information*, March 2012, p.104
131 Multinet, *Access Arrangement Information*, March 2012, D-6 Distribution Mains Strategy, p.12.
132 NGR, r. 79(1).
133 NGR, r. 79(1).
134 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 44.
135 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, p.11.
136 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, pp.9-11.
137 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, p.11.
138 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, p.8.

undertaking the 2008–12 volume of mains replacement together with other mains risk mitigation programs. The AER has also taken SP AusNet's record of compliance under the Gas Safety Act into account in reaching this conclusion.

The impact of the GFC and greater than forecast connections and SP AusNet's chosen level of risk on the use of historical volumes for forecasting efficient and prudent volumes in the 2013–17 access arrangement period

SP AusNet and the other gas distribution businesses submitted that the GFC was an exceptional event and, as such, the volume of mains replacement undertaken in GFC-affected years does not reflect a level of mains replacement which accords with their desired risk levels[139]. SP AusNet submitted that additionally, it had higher than forecast connections expenditure, due to higher than forecast levels of connections. It was required to incur this expenditure given that it has a regulatory obligation to connect new customers to its network. It also submitted that due to the tight credit market, it needed to divert expenditure from mains replacement towards connections. SP AusNet further submitted that the 2008–12 volume of mains replacement does not reflect a risk level that it would choose to carry forward in the 2013–17 access arrangement period and is not a sustainable level of mains replacement in the longer term.

The AER assessed the information provided by each of the gas distribution businesses in relation to the impact of the GFC on their respective mains replacement programs. The AER notes that there is no consistency as to the timing of the claimed impact on the businesses. Declines in volumes of mains replacement were experienced by SP AusNet in 2009, Multinet in 2011, while Envestra was impacted in 2009–10.

The businesses put forward a number of reasons which they submit led to significant under delivery of the mains replacement program besides the GFC, including:

- diversion of capex, towards connections, in the case of SP AusNet [140], and towards IT, in the case of Multinet[141], and
- the ESC reduction in the equity beta leading to investors being unwilling to fund capex, to the level expected by the business, in the case of Multinet[142].

While the AER accepts that credit conditions may have impacted on the volume of mains replacement undertaken by the business during the 2008–12 period, it also notes that SP AusNet did not spend its benchmark capex in this area in the previous access arrangement period. Moreover, there are other factors, nominated by the businesses, which would equally account for not spending their benchmark capex such as diversion of capex to other projects. This suggests that the type of factors highlighted by the businesses may occur during any economic and regulatory cycle and therefore, the AER considers that there is insufficient basis on which to normalise for any such conditions.

In undertaking the volume of mains replacement in the current period, SP AusNet has met its safety and regulatory obligations. This is not withstanding the occurrence of the GFC or the requirement to divert capex towards other areas or any other circumstances that may have been present during the access arrangement period.

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139 Envestra, *Revised access arrangement proposal: Attachment 7.7 Response to Draft Decision – Capital Expenditure*, 9 November 2012, p.7; Multinet, *Revised Access Arrangement Information*, November 2012, p.80; *SP AusNet, Revised access arrangement proposal: Chapter 2 Capex (Confidential)*, November 2012, pp.27-28.

140 SP AusNet, *Access Arrangement Information*, March 2012, p.49.

141 Multinet, *Access Arrangement Information*, March 2012,p.112.

142 Multinet, *Access Arrangement Information*, March 2012,p.112

In assessing the prudent and efficient volume of mains replacement that a distribution business requires, the AER is assessing the level of expenditure that would be incurred by a prudent service provider, acting efficiently, to achieve the lowest sustainable cost that allows the distribution business to meet its safety and regulatory obligations[143]. The AER considers that the revealed actual volumes over a five year period, which smooths the impact of both windfall gains and losses resulting from unforecast impacts on expenditure, is the best proxy for estimating the prudent and efficient volumes in these circumstances. Hence, the AER considers that it is not appropriate to give particular weight to the tight credit conditions of the GFC in calculating historical volumes. Similarly, the AER considers the best proxy for the specific risk a business is willing to adopt is the recent revealed volume of mains replacement as this will capture the specific circumstances of the business.

On the basis of the above, the AER considers that it is neither prudent nor efficient nor would it be in the long term interests of consumers for a service provider to incur expenditure in excess of that which is required to satisfy its safety and regulatory requirements[144].

Consumer funding of volumes of mains approved but not undertaken

SP AusNet submitted that the efficiency carryover mechanism provides for adjustment of the benchmarks to reflect the actual volume of mains replacement work undertaken and so SP AusNet is not over-rewarded for undertaking less than the benchmark volumes[145].

The AER does not agree with this assertion. The efficiency carryover mechanism considers volumes actually delivered and applies an adjustment for the difference between forecast and actual unit rates. It does not make any adjustment for the volume of mains replacement which was funded and not carried out.

Furthermore, the AER considers that it is not prudent and efficient for a service provider to incur expenditure in excess of what will be incurred for historical volumes as this would not be in the long term interests of consumers[146].

Consumers bear the cost of SP AusNet's proposed and approved mains replacement program which is funded but not carried out.

The approved capex for mains replacement is rolled into the business' capital base for the purpose of calculating its required revenue. There are two elements to the required revenue calculation for capex:

- a depreciation allowance, enabling the business to recover the initial cost of the asset, and
- a cost of capital allowance, enabling the business to provide a return to investors for funding the asset.

Regardless of whether the distribution business spends its forecast capex, it retains the full cost of capital allowance. This includes the cost of capital for the mains replacement that the service provider has not spent. Further, the service provider has the use of the depreciation allowance relating to this

143 NGR, r.79(1)(a).
144 NGR, rr. 79(1) and 100(a).
145 SP AusNet, *Revised Access Arrangement Proposal:Chapter 2 Capex*, November 2012, p.37.
146 NGR, r.100(a)

forecast mains expenditure during the access arrangement period[147]. Overall, the expenditure on the mains replacement program accounts for a considerable proportion of the total capex allowance. This means that when the service provider does not spend its approved maintenance expenditure, customers pay above the efficient costs for the service they receive.

2012 volumes and reprioritisation

SP AusNet submitted that 2012 data should be included in the calculation of historical volumes[148].

The AER accepts that the inclusion of 2012 data results in the best possible forecast in the circumstances as it represents the full five years of data. The AER has included 2012 data in the calculation of the average historical volume.

SP AusNet and the other distribution businesses submitted that the AER's reprioritisation did not reflect their mains replacement methodology of prioritising areas based on safety and reliability considerations[149].

At the time of making its draft decision the AER was awaiting the outcome of the ESV's review of the distribution businesses processes regarding prioritisation of areas of mains replacement. The ESV has advised the AER that it considers the distribution businesses' methodology and approach for identifying areas for replacement to be satisfactory to it[150]. On this basis the AER has applied the prioritisation presented by the businesses for the historical volumes which the AER considers are prudent and efficient.

Pass through mechanism

The AER's final decision is to include a pass through. As in its draft decision, and as set out above, the AER recognises that the timing of low pressure mains replacement is somewhat discretionary and potentially subject to the changing risk profile of the network and resource availability. The AER considers that a pass through mechanism will provide SP AusNet with sufficient flexibility to respond to changing conditions, which may require SP AusNet to alter the volume of mains replacement delivered during the 2013–17 access arrangement period.[151] This pass through will apply to all distribution businesses. Should they decide to undertake mains replacement in excess of historical volumes in order to accommodate any change in circumstances, they may submit an application to the AER to cover that expenditure.

In its revised proposal SP AusNet submitted that the volume it has undertaken over 2008–12 is sufficiently close to SP AusNet's benchmark volume. It stated that it should be directly funded through approved conforming capex such that recourse to a pass through should not be necessary.

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147 However, at the end of the access arrangement period, as part of the capital base roll forward, the capital base decreases to remove the total forecast depreciation. This removes the excess depreciation allowance that the service provider recovered over the access arrangement period.

148 SP AusNet, *Response to AER draft decision*, 9 November 2012, p. 26; SP AusNet, *Response to AER draft decision*, 9 November 2012, Appendix 2.C, SP AusNet—ESV Additional Information 31072012, pp.26-27.

149 Envestra, *Revised access arrangement proposal: Attachment 7.7 Response to Draft Decision – Capital Expenditure*, 9 November 2012, pp.13-14; SP AusNet, *Response to AER draft decision*, 9 November 2012, Appendix 2.C, SP AusNet—ESV Additional Information 31072012, pp.31-32, Multinet, *Revised Access Arrangement Proposal*, November 2012, pp.82-83.

150 AER, *VIC gas access arrangement review 2012 - capital expenditure - note for file - - Discussions with ESV re mains replacement, AER13/1094*, 7 March 2013.

151 AER, *Draft decision: SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4*, September 2012, p.10; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 48.

The AER recognises that SP AusNet in the 2008–12 access arrangement period is near to meeting its benchmark volume for the 5 year period. The AER notes that SP AusNet only met its annual volume target in one of the five years and for the 2003–07 access arrangement period it also did not meet its benchmark volume.

The AER considers that consumers have funded greater volumes of mains replacement than SP AusNet chose to complete despite the ESC having approved capex that factored in higher benchmark volumes.

On the information available to it the AER assesses that the historical volume is the best estimate in the circumstances of the prudent and efficient volume for the 2013–17 access arrangement period. However, understanding that circumstances may change, the AER considers that a pass through should be made available to the businesses.

The AER has revised the operation of the pass through. The pass through differs to that proposed by the AER in its draft decision. It takes into account information provided by SP AusNet and the other distribution businesses following the draft decision.

The pass through will only allow for low pressure to high pressure block rollout mains replacement and medium pressure supply mains replacement which is necessary for carrying out of the proposed low pressure to high pressure block rollout, which is proposed in the pass through for the 2013–17 access arrangement period.

Only one pass through application will be allowed for the 2013–17 access arrangement period.

No materiality threshold for the mains pass through will apply. As explained in the AER's draft decision, this takes into account the nature of the costs to be passed through as the replacement of low pressure mains is undertaken for safety and reliability reasons. Further, alterations in the volume of mains replacement delivered may be driven by factors such as new information on safety risks and changes in the relative costs for different methods for mitigating or removing those safety risks. The AER therefore considers it is not appropriate to apply a materiality threshold where it may operate as a disincentive to SP AusNet to undertake mains replacement work where it may be efficient and prudent having regard to the change in circumstances.[152]

In its revised proposal SP AusNet submitted that there was little scope to respond to new knowledge about risks or costs due to the capping of the pass through.[153] The AER agrees with SP AusNet's reasoning that if circumstances change it is not clear in advance what magnitude of mains volume may be necessary. Hence, in its final decision the AER has not capped the pass through .

The businesses' response to the AER's original trigger event, which was completion of historical volumes, was set out in their revised proposals and in subsequent responses to information requests. The businesses submitted that the pass through would create uncertainty as to whether a pass through application would be approved by the AER. According to the businesses, this may affect or

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152 AER, *Draft decision: SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4*, September 2012, pp.10-11; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 48-49.

153 SP AusNet, *Revised Access Arrangement Proposal*, November 2012, p. 40.

may prevent the awarding of contracts due to the lack of certainty. In their view, this would reduce the cost efficiency of the mains replacement work.[154]

In order to clarify the effect on contracting, the AER sought further information from the distribution businesses regarding their particular contracting practices. The AER received information from all the distributors which indicated that the lead time for the awarding of contracts to work execution ranged from two months to two years. Following its assessment of this information and in order to take account of variable contracting practices, the AER has built in a nine month lead time into the pass through event. This factors in average lead time for contracting, based on the information received, as well as time for the application approval process which provides for 90 business days (subject to any extension).

For SP AusNet the trigger event for the pass through is completion of 348 kilometres of mains replacement. The 348 kilometres is calculated by deducting 9 months worth of mains replacement from the historical volume over the 2008–12 period. This is calculated using the mains replacement schedule provided by SP AusNet in its revised proposal.[155]

The unit rates approved in the AER's final decision are to be applied in calculating the expenditure amount for the pass through.

Where volumes are undertaken in suburbs where unit rates have not been approved in the AER's final decision, the distribution business will be required to submit a proposal to the AER for those unit rates as part of the pass through application. The evidence that the AER will consider in assessing the efficiency of the proposed unit rates may include but shall not be limited to:

- whether the unit rate is an awarded tender rate and whether the rates were determined through a competitive tender process.

In the instance where the approved volumes of mains replacement for a particular suburb or suburbs have not been carried out, and are resubmitted as part of the pass through application, the expenditure differential only will be approved. This will be calculated by:

- Calculating the difference between the total capex for mains replacement approved by the AER in its final decision, and the total area adjusted approved expenditure[156] undertaken by Envestra to complete the approved volumes.
- Subtracting this difference from the total approved pass through expenditure.

The AER considers that this:

- Is consistent with the cost pass through event mechanism included in SP AusNet's revised access arrangement proposal which requires the costs of the pass through event to be incremental to costs already allowed for in reference tariffs.
- Allows for the distribution business to reprioritise its mains replacement in order to undertake work in suburbs for which there is not a pre-approved unit rate. Where the unit rate is higher the

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154 SP AusNet, *Revised Access Arrangement Proposal*, November 2012, p.40; Multinet, *Revised Access Arrangement Proposal*, November 2012, p.81; Envestra, *Revised Access Arrangement Proposal*, November 2012, pp.9-10.

155 SP AusNet, *Revised Access Arrangement Proposal*, November 2012, *SP AusNet Capex Model Revised.xls*.

156 This is the sum of the volume multiplied by pre-approved unit rate for suburbs/postcodes where the AER has approved a unit rate plus the volume multiplied by the actual unit rate for suburbs/postcodes where the AER has not approved a unit rate (subject to the AER assessing that the unit rate actually incurred was prudent and efficient).

distribution business will be able to recover the higher unit rates actually incurred, subject to the AER's assessment that the unit rate is prudent and efficient. This therefore means there is no disincentive to undertake works in higher cost areas.

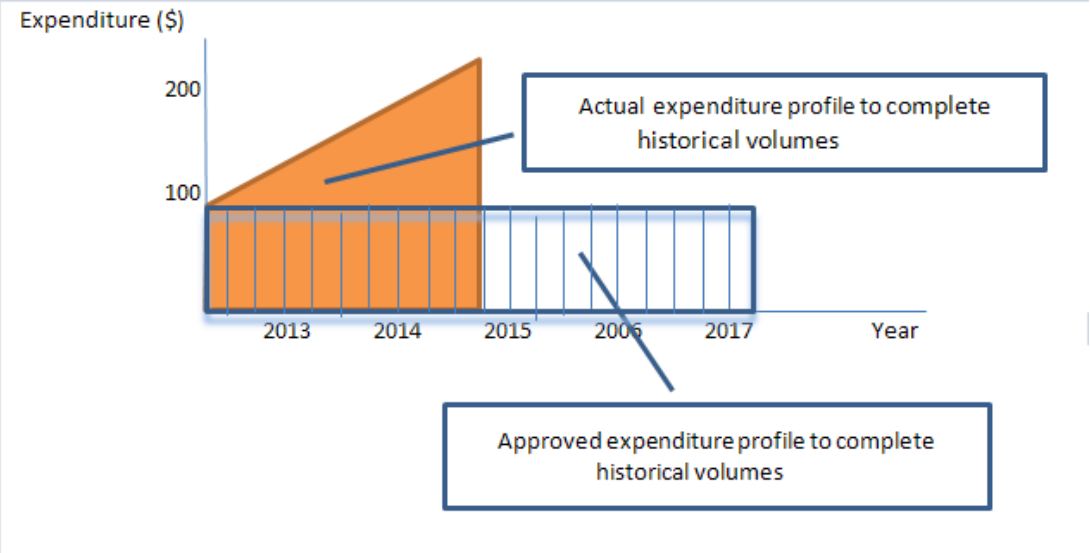
- Similarly, where work is undertaken in a suburb where there is no pre-approved unit rate and the unit rate is lower, the distribution business will be able to recover the lower unit rates actually incurred, subject to the AER's assessment that the unit rate is prudent and efficient. This therefore means that customers are protected from the costs associated with any incentive to nominate works in higher cost areas but to undertake works in lower cost areas.
- Maintains the incentive mechanism for the business to attain lower unit rates than those pre-approved in the AER's final decision.

If approved, the pass through expenditure will consist of:

- The expenditure incurred or to be incurred in order to undertake the approved volumes, less any adjustment amount.
- An adjustment for the difference between:
  - the time value of money allowed for the expenditure approved in the AER's final decision for completion of historical volumes (as per the blue hatched area in Figure 4.2), and
  - the time value of money for the expenditure approved in the AER's final decision but undertaken in the timeframe that the volume was actually completed (as per the orange shaded area)[157]. This ensures that from a time value of money perspective the business is neutral as to whether the volume of mains replacement was approved entirely upfront (as per the orange shaded area in Figure 4.2) or via a combination of upfront funding plus the pass through.

[157] Where volumes have been undertaken in suburbs/postcodes where the AER has not pre-approved a unit rate, the AER will apply a residual unit rate to these volumes. The residual unit rate will be calculated as the total approved expenditure for historical volumes less the expenditure incurred for mains replacement actually undertaken in the suburbs/postcodes included in the AER's approved historical expenditure, divided by, the total approved historical volume less the volume undertaken in the suburbs/postcodes included in the AER's approved historical expenditure.

Figure 4.2 AER approved expenditure profile versus actual completion profile



Source: AER analysis

The pass through expenditure does not include a separate allowance for the equity and debt raising costs associated with financing the pass through volume of mains expenditure as adjustments for these are automatically made on re-running the AER model once the approved pass through amount is rolled into the regulatory asset base (see attachment 3).

In assessing the proposed pass through volume and unit rates the AER must consider whether the costs to be passed through meet the relevant NGR criteria for determining the building block for total revenue for reference services (e.g., the prudency and efficiency of the capex).

The tariff variation mechanism is specified in attachment 12.

In submitting a pass through application the AER will require that the distribution business provides:

- Evidence of completion of the 348 kilometres of LP to HP block rollout and the medium pressure supply mains replacement necessary for carrying out the LP to HP block rollout which constitutes the trigger event. The AER will require that the distribution business submit independently verifiable information which details the low pressure to high pressure block replacement mains and the integral medium pressure supply mains volume by suburb and the unit rate which applied for that volume.
- Evidence that the proposed pass through capex meets the NGR criteria
- Evidence that the business has and will incur expenditure to complete historical volumes.
- Evidence of planned expenditure to complete the pass through volumes.

As per other tariff variations, the AER will make its decision on the pass through application within 90 business days (subject to any extension) of receiving a pass through application which contains the information required for the AER to make its assessment. The AER encourages the distribution businesses to consult with the AER before submitting their applications in order to ensure that the requisite information is included at the time of lodgement.

Unit rates

In its revised proposal SP AusNet adopted the AER's draft decision for unit rates. The AER received no further information and for the reasons in its draft decision approves the unit rates by suburb proposed by SP AusNet[158].

Medium pressure mains replacement

The AER's final decision is to not approve SP AusNet's proposed expenditure for its medium pressure mains replacement program. The AER considers that replacement of the entire medium pressure package is not justified[159] and not prudent and efficient[160] as some sections of mains which SP AusNet was proposing to replace have no history of leaks or fractures. The AER considers that replacement of only those mains with a leakage incidence rate greater than 0.5 is justified from a safety perspective[161]. However, the AER has taken into consideration the cost efficiency of undertaking a piecemeal approach versus the replacement of an entire package area[162]. Where it is more cost efficient to replace an entire package area the AER has approved the mains replacement for the entire package area. Otherwise, the AER has approved only the replacement of the mains where there is a history of more than two leaks in four years (equivalent to a leakage incidence rate (LIR)[163] greater than 0.5).

The AER considers capex of $22.9 million ($2012, unescalated direct costs, excluding overheads) is conforming capex. This consists of 82.5 kilometres at an average unit rate of $277/m ($2012, unescalated direct costs, excluding overheads).

In its initial proposal, SP AusNet proposed a new medium pressure mains replacement program worth $33.2 million ($2012, unescalated direct cost, excluding overheads) for the 2013–17 access arrangement period. The program consisted of 15 packages, totalling 155 km. Under this program, all cast iron, high risk PE CL250 and unprotected steel is to be replaced by 2017.

In the draft decision, based on the advice of Zincara, the AER considered that the number of leaks and the leakage incidence rate for medium pressure mains for recent years were within the cyclical range of the data available for 2002–10[164]. Furthermore, SP AusNet indicated that some of the medium pressure mains replacement would be like-for-like. Zincara indicated that such replacement is expensive relative to the insertion construction method and would need to be upgraded to high pressure in the future[165]. The AER assessed that on the evidence available to it the proposed medium pressure mains replacement program was not prudent and efficient.[166]

In its revised proposal SP AusNet resubmitted its initial proposal of 15 packages of medium pressure mains replacement. SP AusNet provided further information on the condition of the mains and clarified that it was not a block rollout program but a safety targeted program. SP AusNet submitted that:

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158 AER, *Draft decision: SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendices*, September 2012, pp.3-5; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 42-43.

159 NGR, r. 79(2)(c)(i)

160 NGR, r.79(1)(a)

161 NGR, r. 79(2)(c)(i)

162 NGR, r. 79(1)(a)

163 The LIR is the number of leaks per kilometre of main per year.

164 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 50.

165 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 50.

166 NGR, r. 79(1)(a)

- The AER has erred in rejecting the medium pressure program which has a higher LIR[167] and fracture incidence rate (FIR)[168] than the LP program which the AER has approved,
- The medium pressure replacement program is driven by safety and is not a rollout replacement program. SP AusNet assessed that there is an increase in the medium pressure mains LIR and that the current level of risk has reached unacceptable levels for SP AusNet,
- Repair of the medium pressure mains is not always possible[169].

The AER does not agree with SP AusNet's reasoning in its revised proposal that as the LIR is three times higher for the medium pressure replacement program than the low pressure to high pressure rollout program, that the AER should approve the medium pressure mains replacement. The two programs have different objectives:

- the medium pressure mains program's objective is to address immediate location-specific safety risk.
- the low pressure program's objective is to proactively remove all low pressure cast iron and unprotected steel mains in order to address longer term, potential safety risk.

The low pressure to high pressure rollout involves block replacement. This means rolling in from high pressure supply (typically located in the outer, newer areas of the network) towards the central, older areas of the network (which were the areas first laid down to low pressure). This necessarily involves rolling in from areas of lower risk towards areas of higher risk. As it is a rollout program upgrading to high pressure, all low pressure mains within a block area are replaced, irrespective of whether mains do or do not currently have leaks or fractures[170]. The AER considers that the LIR and FIR are not useful indicators upon which to assess the prudency of the LP to HP rollout[171]. Hence the AER does not accept that it should approve the medium pressure, based on the medium pressure program having a higher LIR and FIR than the LP to HP rollout program.

In making its assessment the AER undertook a two-stage assessment approach:

- the AER considered the volume of mains which is justified from a safety perspective. The AER considered that a piecemeal approach was appropriate, whereby only those sections of mains with a history of leaks are replaced,
- secondly, the AER took account of the relative efficiency of the AER's proposed piecemeal approach compared with SP AusNet's proposed approach of replacing an entire package area.

Volume justified from a safety perspective

The AER has assessed the necessity of the mains replacement in the context of SP AusNet's statement that safety is the fundamental driver for the introduction of the medium pressure mains replacement program.[172][173] The AER accepts that it may be necessary to proactively replace mains

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167 The LIR is the number of leaks per kilometre of main per year.
168 The FIR is the number of fractures per kilometre of main per year.
169 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p.4
170 SP AusNet, *Access Arrangement Information*, March 2012, Appendix 5J.3, p.45. SP AusNet notes that the block replacement methodology involves replacement of mains that have failed and mains that have not failed.
171 The AER notes that it used LIR and FIR indicators to compare changes in LP network risk between the 2008–12 and 2013–17 access arrangement period.
172 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p.4
173 SP AusNet did not consider that that network capacity shortfalls were a driver of the medium pressure mains replacement program.

where there is a level of mains deterioration that poses an unacceptable safety risk and is not able to be more economically addressed through other measures, such as surveying.

SP AusNet presented LIR and FIR as indicators of the medium pressure mains deterioration. Zincara advised that it is industry practice to rely on leakage incidence rates and fracture incidence rates as indicators of mains condition, and the AER accepts this.

For each package SP AusNet provided LIR and FIR information by street and material type (cast iron, unprotected steel, protected steel, 250 PE, PE)[174]. The AER notes that SP AusNet proposed to replace material within streets where there was no incidence of fracture or leaks. The AER, based on the advice of Zincara, considers SP AusNet's plan to replace mains where there is no incidence of fracture or leak is not necessary given the safety objective of the program[175]. Therefore, the AER considers SP AusNet's proposed volume is not justified[176].

In determining the LIR level where replacement of medium pressure mains would be indicated to maintain safety, the AER considered the advice of Zincara. Zincara advised that standard industry practice is generally not to replace mains upon a single leak. Zincara assessed that, taking into consideration the four years of data provided by SP AusNet, conservative industry practice would be to replace mains where there are more than two leaks in four years,[177] which equates to a leakage incidence rate of 0.5.

The AER considers that it is not necessary to replace a whole area of mains to mitigate the risk associated with specific lengths of medium pressure mains. Based on the advice of Zincara, the AER considers that a piecemeal approach is justified from a safety perspective, whereby only the affected length of mains of the single material type is replaced[178]. Different sections of mains along a street may be of different material types. The AER considers that from a safety perspective the smallest increment of mains that should be replaced is the section of main of the single material type where there is a leakage incidence rate of greater than 0.5.

Efficiency of a piecemeal approach versus entire package replacement

SP AusNet submitted that the unit rate for a piecemeal approach is higher than the unit rate for undertaking replacement of an entire package area (or block). SP AusNet stated that this is due to factors such as:

- needing to use a larger pipe size in order to maintain network capacity
- requiring specialist equipment to stop the gas flow
- greater complexity and higher reinstatement costs.[179]

SP AusNet provided cost build ups for unit rates for block replacement in its initial proposal[180] and subsequently provided a sample of cost build ups for unit rates for piecemeal replacement.[181]

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174 The AER requested information on the class of leak in order to further refine its assessment, whereby a class 1 leak would imply a need to immediately address the mains risk while a class 2 leak could be scheduled for replacement. However SP AusNet advised that it was unable to provide this information.
175 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, pp.12-19.
176 NGR, r. 79(2)(c)(i).
177 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, pp.12-19.
178 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, pp.12-19.
179 SP AusNet, *Response to information request FD19a*, received 28 February 2013.

Zincara reviewed the cost build ups and advised that they were within industry standard ranges.[182]

SP AusNet provided a sample of seven streets, one of which was a main road and six of which were side streets. In SP AusNet's revised proposal there are four packages (C, D, L and P) which exhibit similar characteristics to the piecemeal approach costed for the seven streets in that they involve like for like replacement with no insertion construction method used as they will continue to be run at medium pressure. SP AusNet stated that while the packages that will continue to be run at medium pressure are similar they are not perfect substitutes because they still incorporate a 'block type' approach[183]. The AER considers that the mains in these packages are of similar lengths to the mains which the AER considers meet its leaks trigger in the other packages and are like for like replacements. The AER has therefore included the C, D, L and P unit rates together with the unit rates from the seven streets to derive an average unit rate.

For streets where the AER's cut-off of a leakage incidence rate of greater than 0.5 was met, SP AusNet provided a description of whether the street was a main street or a side street. The type of street is a good proxy for significant differences in unit rates that is attributable to differences in traffic management and reinstatement costs.

Using this information, the AER calculated two average piecemeal unit rates:

- a main street unit rate, which was based on the weighted[184] average of a major road (included as one of the seven streets) and Package L, and
- a side street unit rate, which was based on the weighted[185] average of the other six streets and Packages C, D and P.

These unit rates were applied by the AER according to the street type which SP AusNet identified.

For each package, the AER calculated the cost of replacing the mains in an entire package by multiplying the block replacement unit rate by the entire package volume (in metres). The AER calculated the piecemeal total cost for each package by multiplying the AER's piecemeal unit rate multiplied by the volume of mains which are identified for replacement on applying the AER's leaks trigger. Where the entire package cost was less than the cost of the AER's piecemeal replacement, the AER considers that the replacement of the entire package is more efficient. Where this is not the case, the AER considers that the piecemeal replacement of only the implicated sections of mains is efficient.

Applying this methodology across all the packages resulted in replacement of the entire package area for six packages (B,E,L,M,O and P). For the remaining packages it is more efficient to apply a piecemeal replacement approach.

In its revised proposal SP AusNet proposed a $1.0 million ($2012, unescalated direct costs, excluding overheads) cast iron allocation for the 2013–17 access arrangement period.

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180 SP AusNet, *Response to information request 15*, received 26 June 2012; SP AusNet, *Response to information request 24*, received 13 July 2012.
181 SP AusNet, *Response to information request FD19a*, received 28 February 2013.
182 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, pp.12-19.
183 SP AusNet, *Response to information request FD19a*, received 28 February 2013, p.7.
184 The volume of mains replacement was used as the weight.
185 The volume of mains replacement was used as the weight.

The AER considers that the additional proposed expenditure for ad hoc replacement is not the best forecast in the circumstances[186] and not prudent and efficient.[187] As leakage surveys are undertaken annually, the majority of any necessary replacement for the 2013–17 access arrangement period should already be planned. To the extent that there is any unforeseen replacement, it is likely to be small.[188] The AER considers that any amounts should be covered from within the approved mains replacement budget. The AER considers that no provision is required for the ad hoc allowance.

Based on the above approach, the AER considers that $22.9 million ($2012, unescalated direct cost, excluding overheads) of medium pressure mains replacement is justified and prudent and efficient[189] (see Table 4.7).

Table 4.7 Final decision—Medium Pressure—Mains replacement[(a)] ($million, 2012)

Category	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	5.6	6.2	6.6	6.5	8.3	33.2
AER draft decision	–	–	–	–	–	–
SP AusNet revised proposal	5.6	6.2	6.6	6.5	8.3	33.2
AER final decision	5.5	4.8	6.9	2.9	2.7	22.9

Source: AER analysis.
(a) Unescalated direct costs, excluding overheads.

Material specific mains replacement

The AER's final decision is to approve SP AusNet's proposed capex of $0.5 million ($2012, unescalated direct cost, excluding overheads) for the replacement of material specific mains. This is on the basis that:

- the mains pose a safety risk and so the replacement is justified[190]
- the most efficient solution is to replace these mains so that the network can continue to be operated at high pressure
- the unit rates, based on the average of the medium pressure unit rate cost build-ups, is assessed to be efficient.

The AER therefore consider the mains replacement is prudent and efficient.[191]

SP AusNet adopted the AER's draft decision in relation to another component of the material specific mains replacement program.[192] The AER received no further information regarding this program and

186 NGR, r.74(2)(b).
187 NGR, r.79(1)(a).
188 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, pp.12-19.
189 NGR, r.79(1)(a).
190 NGR, r.79(2)(c)(i) and (iii).
191 NGR, r.79(1)(a).
192 SP AusNet, *Revised access arrangement proposal: SP AusNet Capex Model Revised.xls*, 9 November 2012.

for the reasons in its draft decision, considers that no allowance is required for this component of the mains replacement capex.[193]

SP AusNet initially proposed two components to its material specific mains replacement program costing $1.0 million ($2012, unescalated direct cost, excluding overheads).[194]

In its initial proposal, SP AusNet stated that there is no change in the risk associated with these mains.[195]

In the draft decision, based on the advice of Zincara, the AER considered that proactive replacement of these mains was not necessary given that there was no change in risk and that the risks associated with these mains was adequately managed through reactive maintenance. The AER therefore did not approve any expenditure for this program.[196]

In its revised proposal, SP AusNet adopted the AER's decision in relation to one component of the mains replacement program.[197]

SP AusNet did not accept the AER's draft decision for the other component of the material specific mains replacement program. SP AusNet submitted that these mains pose a risk for public safety.[198] SP AusNet considered that reactive replacement did not adequately address the public safety risk.[199] Further, SP AusNet submitted that alternative options to replacing the mains are not prudent because they would require augmentation of the network, which would be inefficient.[200] SP AusNet proposed $0.5 million capex ($2012, unescalated direct cost, excluding overheads) as per its initial proposal.

Taking into account SP AusNet's submissions and further advice from Zincara, the AER considers that the replacement of these mains is justified[201] on the basis that:

- the only feasible alternative solution of running the mains at medium pressure would require cost prohibitive augmentation[202]
- the mains pose a risk to public safety.[203]

SP AusNet proposed a unit rate for replacing the mains which was based on the average cost of the medium pressure mains replacement program and in the absence of any historical mains replacement in the area.[204] The AER assessed the efficiency of this rate by calculating the weighted average unit rate of specific areas of medium pressure mains which were similar to the area in which the work is to be undertaken. This yielded an average that was not materially different from the unit rate that was proposed by SP AusNet. The AER therefore considers that the proposed unit rate is prudent and efficient.

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193 AER, *Draft decision: SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendices*, September 2012, pp.15-18; NGR, r. 79(1); AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 51.
194 SP AusNet, *Access Arrangement Information: Appendix 5J.3 Mains and Services Strategy*, March 2012, p. 35.
195 SP AusNet, *Response to information request 17*, received 10 July 2012, p. 4.
196 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, pp. 15-17; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 51.
197 SP AusNet, *Revised access arrangement proposal: SP AusNet Capex Model Revised.xls*, 9 November 2012.
198 SP AusNet, *Revised access arrangement proposal: Chapter 2 Capital Expenditure*, 9 November 2012, p.45.
199 SP AusNet, *Revised access arrangement proposal: Chapter 2 Capital Expenditure*, 9 November 2012, p.45.
200 SP AusNet, *Revised access arrangement proposal: Chapter 2 Capital Expenditure*, 9 November 2012, p.45.
201 NGR, r.79(2)(c)(i).
202 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, pp.20-21.
203 Zincara, *Review of SP AusNet's Capital Expenditure: Addendum*, March 2013, pp.20-21.
204 SP AusNet, *Response to information request 15*, received 4 July 2012, p. 18.

The AER considers $0.5 million ($2012, unescalated direct cost, excluding overheads) for the material specific mains replacement is conforming capex (see Table 4.8).

Table 4.8 Final Decision—Material specific mains replacement[(a)] ($2012 million direct costs)

Category	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	0.3	0.3	0.1	0.1	0.1	1.1
AER draft decision	–	–	–	–	–	–
SP AusNet revised proposal [(b)]	–	0.5	–	–	–	0.5
AER final decision	–	0.5	–	–	–	0.5

Source: AER Analysis
(a) Unescalated direct costs, excluding overheads.
(b) The revised proposal included an opex allowance for 0.2 million.

Reactive mains and services replacement

The AER's final decision is to not approve SP AusNet's proposed $5.8 million ($2012, unescalated direct cost, excluding overheads) for the total reactive mains and services replacement program as the AER considers that the forecast volume of service renewals is not the best estimate in the circumstances[205] and not prudent and efficient.[206]

The AER considers capex of $3.2 million ($2012, unescalated direct cost, excluding overheads) is prudent and efficient.[207]

SP AusNet adopted the AER's draft decision for the capex for the mains renewal, lower/alter mains and lower/alter services categories. The AER received no further information in relation to these components and for the reasons in its draft decision,[208] approves this capex worth $2.4 million ($2012, unescalated direct cost, excluding overheads) as conforming capex.[209]

This results in a total reactive mains and services replacement expenditure of $5.5 million ($2012, unescalated direct cost, excluding overheads).

SP AusNet initially proposed $7.0 million ($2012, unescalated direct cost, excluding overheads) for reactive mains and service replacements.[210]

In the draft decision, the AER did not accept SP AusNet's forecast capex for the service renewals category. SP AusNet forecast an unconstrained upwards trend in services volume. The AER considered that an unconstrained upwards trend for services volume has no underpinning rationale and concluded that the volume forecast was not arrived at on a reasonable basis. The AER used the 2008–11 average volume for the 2013–17 access arrangement period. The AER approved

205 NGR, r.74(2)(b).
206 NGR, r.79(1)(a).
207 NGR, r. 79(1)(a).
208 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, p. 18; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 51–52.
209 NGR, r. 79(1)(a).
210 SP AusNet, *Access Arrangement Information: Appendix 5J.3 Mains and Services Strategy*, March 2012, p. 34.

$5.6 million ($2012, unescalated direct cost, excluding overheads) over the 2013–17 access arrangement period.[211]

In its revised proposal, SP AusNet did not adopt the AER's draft decision. SP AusNet agreed with the AER that reactive service replacement growth is likely to slow over the 2013–17 access arrangement period. It consequently revised down its estimate of service renewals, projecting the 2011 volume of service replacements forward. SP AusNet submitted that the AER had:

- applied an inconsistent approach across the three Victorian gas distribution businesses in relation to reactive service replacements
- disregarded the trend in reactive service replacements over the current period
- not considered all the drivers of reactive service replacements.[212]

In relation to taking a different approach in assessing the three businesses, the AER considers that in the propose/respond framework of the NGL and NGR, the AER must:

- first assess what each business proposes and evaluate whether forecasts are arrived at on a reasonable basis and the best possible in the circumstances
- then evaluate the proposed expenditure against the capex NGR criteria.

It may be that it is appropriate to apply a different methodology for the different businesses depending upon what they propose as the AER is responding to the businesses' proposals and submissions for forecasting the volume of reactive service replacements.

In assessing SP AusNet's revised proposal the AER sought 2012 data for service renewals.[213] There is no apparent trend in the volume of reactive service replacements over the current period. An extrapolation forward of the 2011 volume would not result in the best possible estimate in the circumstances[214] as this would be higher than the average over the 2008–12 access arrangement period. The AER therefore considers that an average of the 2008–12 volume of reactive service replacements is the best estimate possible in the circumstances.[215]

The AER disagrees with SP AusNet's assertion that it has not considered all the drivers of reactive service replacements. SP AusNet stated that it disagreed with the AER's assessment that the volume of reactive service replacements will slow as connection growth slows on the basis that these assets are not the focus of reactive service replacement.[216]

The AER, in the context of SP AusNet's presentation of a long term upwards linear trend, considers that reactive service replacements is a rolling replacement program and that connections undertaken today will be the source of replacements in the future. If connections are slowing today then the reactive replacements in the future will also slow.

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211 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, p. 18; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 52.
212 SP AusNet, *Revised access arrangement proposal: Chapter 2 Capital Expenditure*, 9 November 2012, pp.51–54.
213 AER, *Information request FD12a*, sent 17 January 2013.
214 NGR, r.74(2)(b)
215 NGR, r.74(2)(b)
216 SP AusNet, *Revised access arrangement proposal: Chapter 2 Capital Expenditure*, 9 November 2012, pp. 51–52.

While SP AusNet stated that there does not appear to be a correlation between mains replacement on its network and the number of service replacements,[217] SP AusNet has revised its forecast volume on the basis that it is increasing its mains replacement volume and so expects a slowing of the growth in service replacements.[218]

Minor specific mains replacement project

The AER's final decision is to approve $0.2 million ($2012, escalated direct cost, excluding overheads) for a minor specific mains replacement project.[219]

SP AusNet's revised proposal adopted the AER draft decision[220]. SP AusNet proposed $0.2 million ($2012, escalated direct cost, excluding overheads) for the replacement of the specific mains.[221]

In the draft decision the AER considered that the replacement was necessary and efficient and so approved the $0.2 million ($2012, escalated direct cost, excluding overheads) expenditure.[222]

The AER received no further information and for the reasons in its draft decision approves the capex for the replacement of the specific mains.

4.4.2 Customer connections

The AER's final decision is not to approve SP AusNet's revised capex proposal of $193.9 million ($2012, unescalated direct cost, excluding overheads) for the 2013–17 access arrangement period. The AER considers $190.3 million ($2012, unescalated direct cost, excluding overheads) is conforming capex.[223] The AER considers this amount is consistent with the NGR requirements.

In particular, the AER does not accept:

- The abolishment forecast for both residential and commercial and industrial customers. The AER has revised SP AusNet's forecasts to correct an error identified by SP AusNet.[224]
- SP AusNet's abolishment forecast methodology for industrial and commercial customers. The reasonableness of SP AusNet's methodology relied upon a relationship between abolishments and both economic growth and SP AusNet's network size. The AER is not satisfied this relationship exists and so considers this forecast is not arrived at on a reasonable basis and does not represent the best estimate possible in the circumstances.[225]
- The gross connections forecast. The AER has applied the demand forecast approved in attachment 10. However, as an allowance for the Huntly extension is provided separately within the final decision, the AER has removed these connections from the connections capex forecast to avoid double counting the forecast expenditure.

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217 SP AusNet, *Revised access arrangement proposal: Chapter 2 Capital Expenditure*, 9 November 2012, pp. 52–53.
218 SP AusNet, *Revised access arrangement proposal: Chapter 2 Capital Expenditure*, 9 November 2012, p. 49.
219 NGR, r. 79(1).
220 SP AusNet, *Revised access arrangement proposal: SP AusNet Capex Model Revised.xls*, 9 November 2012.
221 SP AusNet, *Access Arrangement Information: Appendix 5J.3 Mains and Services Strategy*, March 2012, pp. 36, 38.
222 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 Confidential appendix*, September 2012, p.19; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 51.
223 NGR. 74(2) and 79
224 SP AusNet, *response to information request FD4a, SPAN GAAR 2013–17 AER info response FD4a.pdf*, 17 December 2012. p.1.
225 NGR, rr. 74(2)(a) and 74(2)(b)

Table 4.9 Final Decision—Residential customer connections[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	33.5	33.5	33.3	33.1	33.2	166.5
AER draft decision	32.7	32.5	32.2	31.8	31.6	160.9
SP AusNet revised proposal	35.4	35.5	36.1	34.8	33.3	175.1
AER final decision	35.4	35.2	35.9	34.6	33.2	174.4

Source: AER Analysis
(a) Unescalated direct costs, excluding overheads.

Table 4.10 Final Decision—Commercial and industrial customer connections[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	3.4	3.5	3.6	3.7	3.8	18.0
AER draft decision	3.0	3.1	3.1	3.1	3.1	15.2
SP AusNet revised proposal	3.4	3.7	3.9	3.8	3.8	18.7
AER final decision	3.1	3.2	3.3	3.2	3.2	16.0

Source: AER Analysis.
(a) Unescalated direct costs, excluding overheads.

The AER's detailed assessment of connections capex is set out below.

Tariff V customer connections

SP AusNet's Tariff V connections capex is forecast by multiplying a historical average unit rate (for each component of a connection) by the forecast gross connections. SP AusNet's gross connections are forecast by adding a forecast number of abolishments to SP AusNet's net connections forecast.

The AER's consideration of the unit rates and volumes is set out below.

Unit rates

The AER's draft decision did not accept SP AusNet's proposed unit rates, particularly the AER did not accept the addition of a 5 or 10 per cent contingency to SP AusNet's historical unit rates.[226] SP AusNet's revised proposal adopted the AER's draft decision on the unit rates. The EUCV supported the use of average unit rates which AER used in its draft decision.[227] For the reasons set out in the draft decision, the AER considers the unit rates in its draft decision are prudent and efficient, and the best forecasts in the circumstances.[228]

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226 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2 – attachments*, September 2012, p. 24.

227 Energy Users Coalition of Victoria, *Submission to the AER: Draft decision and SP AusNet, Envestra and Multinet revised access arrangement proposals*, January 2013, p.19.

228 NGR, rr. 74(2) and 79(1); AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2 – attachments*, September 2012, p. 24.

Abolishments

The AER does not accept the abolishment forecast for both residential and commercial and industrial customers. The AER notes that SP AusNet identified an error in its forecast for both residential and commercial and industrial connections.[229]

Subject to the correction of this error, the AER approves the abolishment forecast for residential customers. However, the AER does not accept SP AusNet's abolishment forecast methodology for industrial and commercial customers. The AER considers that the forecast for industrial and commercial customers is not arrived at on a reasonable basis and does not represent the best estimate possible in the circumstances.[230]

SP AusNet did not adopt the AER's draft decision on the number of abolishments in its network.[231] For residential abolishments, SP AusNet's revised forecast is calculated by applying the average abolishment rate from 2007 to 2011 to forecast net connections in 2013–17.[232] This differs from SP AusNet's initial proposal where the abolishment rate was forecast to grow over the 2013–17 access arrangement period. For commercial and industrial abolishments SP AusNet maintained its initial proposal where growth in non-domestic network abolishments continues to increase.[233]

On the AER's abolishment forecast, SP AusNet submitted that:[234]

> SP AusNet has identified several areas of concern with the AER's revised approach.
>
> - The AER has applied an inconsistent approach in forecasting abolishment volumes for each of the three distribution businesses;
> - The revised forecast ignores trends in network abolishment in the current regulatory period;
> - The AER's assessment that the drivers for domestic and non-domestic abolishments are considered uniform; and
> - The revised forecast methodology ignores the growth in SP AusNet's customer base.

The AER has below addressed the issues raised by SP AusNet.

Consistent forecasting approach

In relation to taking a different approach in assessing the three businesses, the AER considers that in the propose/respond framework of the NGL and NGR, the AER must:

- first assess what each business proposes and evaluate whether forecasts are arrived at on a reasonable basis and the best possible in the circumstances.
- then evaluate the proposed expenditure against the capex NGR criteria.

It may be that it is appropriate to apply a different methodology for the different businesses depending upon what they propose as the AER is responding to the businesses' proposals and submissions for forecasting the volume of reactive service replacements.

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229 SP AusNet, *response to information request FD4a, SPAN GAAR 2013–17 AER info response FD4a.pdf*, 17 December 2012. p.1.
230 NGR, rr. 74(2)(a) and 74(2)(b)
231 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 55
232 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 63.
233 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 65.
234 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 61.

Residential customer connections—Abolishment volume

SP AusNet considered that the AER's draft decision ignored relationships between the historical abolishment volumes and the number of connections in SP AusNet's network and the total size of SP AusNet's network.[235] To support this position SP AusNet identified correlations[236] between the number of abolishments and net connections and SP AusNet's customer base. SP AusNet submitted that:[237]

> A review of historical relationships showed there is a strong positive correlation between the volume of domestic network connections (a proxy to economic activity) and the volume of domestic network abolishment....

SP AusNet submitted that the positive correlation between economic activity and abolishments arises because:[238]

> One driver of abolishment is the increase in infill development that is occurring in SP AusNet's network, whereby subdivisions and higher density developments are taking the place of low density connections... In this circumstance, subdivision helps substantiate the positive relationship between economic activity and network abolishment.

SP AusNet submitted that the positive correlation between SP AusNet's customer base and abolishments arises because:[239]

> As the network grows in customer base, all other factors being equal, there is an expectation that the absolute volume of network abolishments will also grow. Failure to consider the growing network customer base in the forecasting of network abolishments results in a significant underestimation of volumes to 2017.

The AER has examined the submissions and evidence provided by SP AusNet to assess whether these factors do actually have an effect on SP AusNet's residential abolishment rate. The AER used regression analysis to examine whether the level of economic activity and network size are significant explanatory variables for the total number of residential abolishments in SP AusNet's network. The AER's regression analysis found that both net connections and total customer numbers have a statistically significant (at the P<.05 level) relationship with the number of abolishments. This supports SP AusNet's view on the nature of these relationships. SP AusNet's forecasting methodology was formulated on the basis that these relationship exist. As such, the AER considers that SP AusNet's revised forecast has been reached on a reasonable basis and represents the best forecast or estimate possible in the circumstances.[240]

Finally, SP AusNet identified and corrected a formula issue in the underlying data.[241] This formula error affected the reported number of abolishments in 2009, 2010 and 2011. The AER has corrected for this in its assessment.

Industrial and commercial customer connections—Abolishment volume

For industrial and commercial connections, SP AusNet considered that the AER's draft decision ignored relationships between the historical abolishment volumes and the number of connections in

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235 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 61.
236 SP AusNet, *Revised access arrangement proposal, SPN Network Abolishment forecast Nov 2012 - Final.xlsx, 9 November 2012.*
237 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 61.
238 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 61.
239 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 61.
240 NGR, rr. 74(2)(a) and 74(2)(b).
241 SP AusNet, *Response to AER information request 4a, SPAN GAAR 2013–17 AER info response FD4a.pdf*, 17 December 2012, p.1.

SP AusNet's network and the total size of SP AusNet's network.[242] To support this position SP AusNet identified correlations[243] between the number of abolishments and net connections and SP AusNet's customer base. SP AusNet submitted that:[244]

> A review of historical relationships suggests there is in fact a negative relationship (correlation) between net connections and non-domestic network abolishment....

SP AusNet submitted that the negative correlation between economic activity and abolishments arises because:[245]

> The slowing economy places an increased strain on business' causing an increased proportion being closed down.

SP AusNet submitted that the positive correlation between SP AusNet's customer base and abolishments arises because:[246]

> As the network grows in customer base, all other factors being equal, there is an expectation that the absolute volume of network abolishments will also grow. Failure to consider the growing network customer base in the forecasting of network abolishments results in a significant underestimation of volumes to 2017.

The AER has examined the arguments and evidence provided by SP AusNet to assess whether these factors do actually have an effect on SP AusNet's commercial and industrial abolishment rate. The AER used regression analysis to examine whether the level of economic activity and network size are significant explanatory variables for the total number of industrial and commercial abolishments in SP AusNet's network. The AER's regression analysis determined that neither net connections nor total customer numbers have a statistically significant (at the P<.05 level) relationship with the number of abolishments.

SP AusNet's forecasting methodology was formulated on the basis that these relationship exist. However, the AER is not satisfied that these relationships are significant explanatory variables for the number of abolishments in SP AusNet's network. As such, the AER considers that SP AusNet's revised forecast has not been reached on a reasonable basis and does not represent the best forecast or estimate possible in the circumstances.[247]

The AER provided the results of its regression analysis to SP AusNet and indicated it considered an average of historical abolishments may be the best forecast possible in the circumstances.[248] SP AusNet acknowledged that the drivers for non-residential abolishments are less well established (than residential abolishments), and that the use of an average may be an appropriate forecast.[249] SP AusNet did not provide any further information to suggest that an average is not the best forecast possible in the circumstances.

The AER considers that some additional factors may influence the number of commercial and industrial abolishments in SP AusNet's network. However, on the basis of the information before the AER it is not possible to identify these factors or assess the expected impact of these factors in the 2013–17 access arrangement period. The AER has not been provided with any evidence that any

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242 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 58.
243 SP AusNet, *Revised access arrangement proposal, SPN Network Abolishment forecast Nov 2012 - Final.xlsx, 9 November 2012.*
244 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 61.
245 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 61.
246 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 61.
247 NGR, rr. 74(2)(a) and 74(2)(b).
248 AER, *Information request 4a*, 4 December 2012.
249 SP AusNet, *Response to AER information request 4a, SPAN GAAR 2013–17 AER info response FD4a.pdf*, 17 December 2012, p.6.

such factors will continue to drive an increase in abolishments into the 2013–17 access arrangement period. The AER therefore considers it has no evidence to support a forecast of an increase in SP AusNet's abolishment ratio. In these circumstances an average of historical data is a reasonable basis and is the best forecast possible in the circumstances.

Finally, SP AusNet identified and corrected a formula issue in the underlying data.[250] This formula error affected the reported number of abolishments in 2009, 2010 and 2011. The AER has corrected for this in its assessment.

Net connections forecast

In the AER's draft decision on SP AusNet's demand forecast the AER incorporated updated growth rate estimates provided by the Victorian Department of Planning and Community Development.[251] However, in its draft decision the AER omitted to apply these updated growth rates to the connections capex forecast. SP AusNet's revised proposal applied these updated growth rates to its connections capex forecast. As discussed in chapter 10, the AER has approved SP AusNet's revised proposal growth forecasts and so approves SP AusNet's revised connections capex forecast in this respect.

For the purposes of calculating connections capex, the AER has removed the additional demand resulting from the connection of the Huntly extension. The AER has separately approved the capex associated with the Huntly extension (see section 4.4.8). Including the costs of this extension in the connections capex category would result in SP AusNet double recovering this cost. The AER provided the adjustment to SP AusNet and SP AusNet has indicated that it agrees to this approach.[252]

Tariff D customer connections

The AER's draft decision was to approve SP AusNet's proposed $5.2 million ($2012, escalated direct cost, excluding overheads) for new Tariff D customer connections over the 2013–17 access arrangement period. In its draft decision the AER considered that SP AusNet's Tariff D connections capex is conforming capex[253] and that the forecasts were arrived at on a reasonable basis and the best forecast possible in the circumstances.[254] The AER received no further submissions on this category. As such, for the reasons set out in the AER's draft decision, the AER considers that $5.2 million ($2012, escalated direct cost, excluding overheads) for new Tariff D customer connections is conforming capex over the 2013–17 access arrangement period.

4.4.3 Meter replacements

The AER approves $27.3 million ($2011, unescalated direct costs, excluding overheads) for meter replacement capex as conforming capex.[255] See Table 4.11 and Table 4.12 for the approved capex over the 2013–17 access arrangement period.

SP AusNet initially proposed $27.3 million ($2012, unescalated direct costs, excluding overheads) for meter replacement capex over the 2013–17 access arrangement period.[256]

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250 SP AusNet, *Response to AER information request 4a, SPAN GAAR 2013–17 AER info response FD4a.pdf*, 17 December 2012, p.1.
251 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2 – attachments*, September 2012, p. 191.
252 SP AusNet, *Response to AER information request FD8a*, 10 January 2013.
253 NGR, r. 79(1).
254 NGR, r. 74(2).
255 NGR, r. 79(1).
256 SP AusNet, *Capital Expenditure Forecast Model.xls, GAAR CapexForecast_040 worksheet*, March 2012.

The AER's draft decision approved SP AusNet's meter replacement capex as it considered the expenditure is justifiable[257] and prudent and efficient.[258, 259]

SP AusNet's revised proposal was unchanged from its initial proposal and the AER's draft decision.

No further information was received on meter replacement expenditure. For the reasons in the AER's draft decision, the AER approves SP AusNet's meter replacement expenditure.[260]

Table 4.11 Final Decision—Residential meter replacement[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	4.7	5.0	4.4	4.2	4.1	22.4
AER draft decision	4.7	5.0	4.4	4.2	4.1	22.4
SP AusNet revised proposal	4.7	5.0	4.4	4.2	4.1	22.4
AER final decision	4.7	5.0	4.4	4.2	4.1	22.4

Source: AER Analysis.
(a) Unescalated direct costs, excluding overheads.

Table 4.12 Final Decision—Commercial and industrial meter replacement[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	0.9	1.0	1.0	1.0	1.1	4.9
AER draft decision	0.9	1.0	1.0	1.0	1.1	4.9
SP AusNet revised proposal	0.9	1.0	1.0	1.0	1.1	4.9
AER final decision	0.9	1.0	1.0	1.0	1.1	4.9

Source: AER Analysis
(a) Unescalated direct costs, excluding overheads.

4.4.4 Augmentation

The AER's final decision is to approve SP AusNet's proposed $21.5 million ($2012, unescalated direct costs, excluding overheads) for augmentation as conforming capex[261] (see Table 4.13).

SP AusNet initially proposed $21.5 million ($2012, unescalated direct costs, excluding overheads) for augmentation capex over the 2013–17 access arrangement period.[262]

The AER's draft decision approved SP AusNet's augmentation capex as it considered the expenditure is justifiable[263] and prudent and efficient.[264]

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257 NGR, r. 79(2)(c)(i)–(iii).
258 NGR, r. 79(1).
259 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – Confidential appendixes* , September 2012, p. 26.
260 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – Confidential appendix*, September 2012, p. 26.
261 NGR, r. 79(1).
262 SP AusNet, *Access Arrangement Information: Appendix 5J.9 Network capacity strategy*, March 2012, pp. 43–45.
263 NGR, r. 79(2)(c)(i)–(iii).

SP AusNet's revised proposal was unchanged from its initial proposal and the AER's draft decision.[265]

In its submission to the AER, the EUCV stated that AEMO's 2012 Gas Statement of Opportunities indicated that the amount of gas likely to be used in the 2013–17 access arrangement period is considerably less than was used in the 2008–12 access arrangement period. The EUCV considered this top-down analysis indicated that there is no need to augment the distribution networks to accommodate gas usage growth. Further, the EUCV considered augmentation needs in the 2013–17 access arrangement period would be quite modest and only needed in areas of expansion of the distribution networks to accommodate new gas users.[266]

The AER accepts the EUCV's observation that system-wide demand is not forecast to increase in the 2013–17 access arrangement period. However, this does not necessarily mean there is no need to augment the distribution networks. Augmentation capex may be required to:

- reinforce sections of distribution networks that are supply constrained
- ensure the distribution networks are capable of continuing to satisfy demand for services, particularly in areas of high growth.

In the draft decision, the AER examined the drivers of SP AusNet's proposed augmentation projects and whether they aligned with the above reasons. The AER also considered the timing of the proposed works, the capacity benefit which results from the augmentation solution and the input cost of each project.[267] The AER considered the proposed capex to be justified[268] and prudent and efficient[269] for the following reasons:

- the proposed augmentation is necessary to maintain safety and the integrity of services and to meet minimum specified regulatory pressures
- the proposed augmentation solutions are prudent given SP AusNet's forecast of connections growth and gas demand, which shows gas pressure declining below minimum gas pressures in constrained network areas in the year before the proposed augmentation
- the input costs of the augmentation projects are considered to be within a reasonable range of industry standard costs and reflect that of a prudent and efficient service provider.[270]

The AER received no further information addressing the specific augmentation projects proposed by SP AusNet. For the above reasons, the AER therefore considers SP AusNet's proposed augmentation expenditure is conforming capex.[271]

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264 NGR, r. 79(1); AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2 – attachments*, September 2012, p. 64; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 63–64.

265 SP AusNet, *Revised access arrangement proposal: Chapter 2 Capital Expenditure: SP AusNet Capex Model Revised.xlsx*, 9 November 2012.

266 Energy Users Coalition of Victoria, *Submission to the AER: AER draft decision and revised applications from Envestra, Multinet and SP AusNet*, January 2013, pp 18–19.

267 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – confidential appendix*, September 2012, pp. 35-36; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 63-64.

268 NGR, r. 79(2)(c)(i)-(iii).

269 NGR, r. 79(1).

270 Zincara, *Review of SP AusNet's Capital Expenditure*, September 2012, pp.15-24

271 NGR, r.79(1), .

Table 4.13 Final decision—Augmentation[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	6.0	5.8	6.6	0.9	2.2	21.5
AER draft decision	6.0	5.8	6.6	0.9	2.2	21.5
SP AusNet revised proposal	6.0	5.8	6.6	0.9	2.2	21.5
AER final decision	6.0	5.8	6.6	0.9	2.2	21.5

Source: AER analysis.
(a) Unescalated direct costs, excluding overheads.

4.4.5 SCADA

The AER's final decision is to approve $4.1 million ($2012, unescalated direct costs, excluding overheads) for Supervisory Control and Data Acquisition (SCADA) for the 2013–17 access arrangement period (see Table 4.14).

SP AusNet initially proposed $4.1 million ($2012, unescalated direct costs, excluding overheads) of SCADA-related capex for the 2013–17 access arrangement period.

The AER's draft decision approved SP AusNet's SCADA capex as it considered the expenditure is justified and prudent and efficient.[272]

SP AusNet's revised proposal was unchanged from its initial proposal and the AER's draft decision.

No further information was received on the SCADA expenditure. For the reasons in the AER's draft decision,[273] the AER considers SP AusNet's SCADA expenditure is conforming capex.

Table 4.14 Final decision—SCADA[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	0.9	0.8	0.9	0.8	0.8	4.1
AER draft decision	0.9	0.8	0.9	0.8	0.8	4.1
SP AusNet revised proposal	0.9	0.8	0.9	0.8	0.8	4.1
AER final decision	0.9	0.8	0.9	0.8	0.8	4.1

Source: AER analysis.
(a) Unescalated direct costs, excluding overheads.

4.4.6 Information technology

The AER's final decision is to approve $48.6 million ($2012, unescalated direct costs, excluding overheads) of IT expenditure as conforming capex[274] (see Table 4.15 and Table 4.16).

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272 NGR, r. 79(2)(c)(i)-(iii); AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – confidential appendix*, September 2012, pp. 36–37; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 64-65.

273 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4– confidential appendix*, September 2012, pp. 36-37; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 64–65.

274 NGR, r. 79(1).

SP AusNet initially proposed $55.3 million ($2012, unescalated direct costs, excluding overheads) of IT capex for the 2013–17 access arrangement period.[275]

The AER's draft decision approved $48.6 million ($2012, unescalated direct costs, excluding overheads) of SP AusNet's proposed IT capex.[276] This reflected the following adjustments made to various elements of SP AusNet's proposed IT program:

- reduction of contingency allowances across the entire IT program
- reduction in the labour component for several programs
- removal of NECF costs across the entire IT program. NECF costs will be treated as a pass through when the NECF is introduced in Victoria.[277]

In its revised proposal, SP AusNet adopted the AER's draft decision.[278]

No further information was received on IT capex. For the reasons in the AER's draft decision,[279] the AER approves SP AusNet's IT capex.

Table 4.15 Final decision—Information Technology[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	16.3	14.6	7.7	8.1	8.7	55.3
AER draft decision	13.6	13.0	6.9	7.5	7.6	48.6
SP AusNet revised proposal	13.6	13.0	6.9	7.5	7.6	48.6
AER final decision	13.6	13.0	6.9	7.5	7.6	48.6

Source: AER analysis.
(a) Unescalated direct costs, excluding overheads.

Table 4.16 Final decision – Information Technology by program[(a)] ($million, 2012)

IT program	2013	2014	2015	2016	2017	Total
Asset and works management	1.2	0.2	0.2	0.1	2.2	3.8
Network management	–	1.5	0.0	2.2	0.7	4.4
Customer & meter management	1.4	2.6	0.2	–	–	4.2
Workforce collaboration	2.2	0.9	0.2	1.1	–	4.3
Back office management	0.8	0.5	–	0.4	0.4	2.2

275 SP AusNet, *Access Arrangement Information: Appendix 5E Information and Communication Technology Strategy 2013–17*, March 2012, p. 39; SP AusNet, *Access Arrangement Information*, March 2012, p. 124.

276 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – confidential appendix*, September 2012, pp. 37–39; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 65-67.

277 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – confidential appendix*, September 2012, pp. 38–39; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 67.

278 SP AusNet, *Revised access arrangement proposal: Chapter 2 Capital Expenditure: SP AusNet Capex Model Revised.xlsx*, 9 November 2012.

279 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – confidential appendix*, September 2012, pp. 38–39; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 65-67.

Analytics & reporting	1.8	0.2	0.7	–	–	2.7
IT infrastructure & operations	5.3	7.1	5.6	3.8	4.2	26.0
AMI systems & infrastructure	1.0	–	–	–	–	1.0
Total	13.6	13.0	6.9	7.5	7.6	48.6

Source: AER analysis
(a) Unescalated direct costs, excluding overheads.

4.4.7 Other non-demand capex

The AER approves $19.5 million ($2012, unescalated direct costs, excluding overheads) for other non-demand capex as conforming capex[280] and considers the forecasts were arrived at on a reasonable basis and the best forecast possible in the circumstances.[281] See Table 4.17 for the approved capex over the 2013–17 access arrangement period.

In its draft decision, the AER considered SP AusNet's initial proposal contained 21 projects which fall into the 'other non-demand' category of capex, with a total proposed expenditure of $22.9 million ($2012, unescalated direct costs, excluding overheads). In its draft decision the AER approved $19.5 million ($2012, unescalated direct costs, excluding overheads) for 'other non-demand' capex over the 2013–17 access arrangement period.[282] The AER did not approve 5 projects as the AER considered these projects were not conforming capex or the forecasts were not arrived at on a reasonable basis or the best forecast possible.[283] The AER's reasons varied across the different projects and are discussed in detail in the draft decision.[284]

In its revised proposal SP AusNet adopted the AER's draft decision on other non demand capex. The AER received no further submissions on this category of expenditure. For the reasons set out in its draft decision, the AER approves SP AusNet's expenditure for 'other non-demand' capex.[285]

Table 4.17 Final decision—Other non demand capex[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	2.9	5.4	5.9	4.8	3.8	22.9
AER draft decision	2.5	4.1	4.7	4.6	3.6	19.5
SP AusNet revised proposal	2.5	4.1	4.7	4.6	3.6	19.5
AER final decision	2.5	4.1	4.7	4.6	3.6	19.5

Source: AER analysis
(a) Unescalated direct costs, excluding overheads.

280 NGR, r. 79(1).
281 NGR, r. 74(2).
282 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – Confidential appendixes* , September 2012, p. 39.
283 NGR, rr. 79(1), 74.
284 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – Confidential appendixes* , September 2012, pp. 39–47.
285 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – Confidential appendixes* , September 2012, pp. 39–47.

4.4.8 Extensions

The AER approves $2.8 million ($2012, unescalated direct costs, excluding overheads) for extensions capex as conforming capex[286] and considers the forecasts were arrived at on a reasonable basis and the best forecast possible in the circumstances.[287] See Table 4.18 for the approved capex over the 2013–17 access arrangement period.

SP AusNet initially proposed $2.8 million ($2012, unescalated direct costs, excluding overheads) for extensions capex over the 2013–17 access arrangement period.

The AER's draft decision was to approve SP AusNet's proposed expenditure for extending the gas distribution network to the Huntly Township in the 2013–17 access arrangement period.[288]

SP AusNet's revised proposal was unchanged from its initial proposal and the AER's draft decision.

No further information was received on extensions. For the reasons in the AER's draft decision, the AER approves SP AusNet's extensions expenditure.[289]

Table 4.18 Final decision—Extensions[(a)] ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	1.5	1.0	0.1	0.1	0.0	2.8
AER draft decision	1.5	1.0	0.1	0.1	0.0	2.8
SP AusNet revised proposal	1.5	1.0	0.1	0.1	0.0	2.8
AER final decision	1.5	1.0	0.1	0.1	0.0	2.8

Source: AER analysis
(a) Unescalated direct costs, excluding overheads.

4.4.9 Overheads

The AER's final decision is to not approve the overhead capex in SP AusNet's revised proposal. The AER considers that SP AusNet's use of 2011 as a base year does not provide a reasonable basis for estimating overheads, and does not result in the best estimate possible[290]. SP AusNet submitted that 2011 should be used as the base year, consistent with the revealed cost approach used in forecasting opex[291]. The AER does not agree as there is no certainty over the efficiency of the costs in that year. Capex is not subject to the same efficiency incentives that operate for opex (that is, the opex efficiency carryover mechanism). Further, there is no clear trend in overheads expenditure. The AER considers a total overhead cost of $61.3 million ($2012, escalated costs) is conforming capex.[292]

In its final decision, the AER has recalculated the forecast overheads using the following methodology:

- the average of 2008–11 actual overheads forms the base overhead amount.

286 NGR, r. 79(1).
287 NGR, r. 74(2).
288 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – Confidential appendixes* , September 2012, p. 47.
289 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – Confidential appendixes* , September 2012, pp. 47–48.
290 NGR, rr. 74(2)(a), 74(2)(b).
291 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, pp. 70–71.
292 NGR, r. 79(1).

- an adjustment to the variable proportion of the overheads is made to account for the scaling up or down of overhead expenditure in line with changes in the total capex across years. SP AusNet submitted that a percentage of its overheads were variable[293]. Hence, each year that per cent of the base overhead amount is multiplied by the change in gross unescalated capex to form the base overhead plus variable growth.

- An adjustment for labour escalation is made to account for the real change in labour costs over time.[294, 295] Hence, a proportion of the base overhead plus variable growth is escalated by the average of the AER's approved internal and external labour cost escalators. This forms the labour escalated component of overheads.

- The material component of overheads is calculated as a percentage of the base overhead plus variable growth.

- The labour component and the material components are added to arrive at the total overhead amount.

SP AusNet initially proposed $68.2 million ($2012, escalated direct costs) in overheads expenditure for the 2013–17 access arrangement period.[296]

The AER in its draft decision considered that SP AusNet's proposed overhead expenditure did not provide a reasonable estimate for overheads for the 2013–17 access arrangement period. The AER considered the scale of SP AusNet's business would not change such that a step up in the fixed proportion of overheads was warranted. The AER's draft decision approved overhead costs of $57.9 million ($2012) for the 2013–17 access arrangement period. These were calculated by taking the average overhead expenditure from 2008–11.[297]

SP AusNet's revised proposal did not accept the AER's draft decision on the:

- appropriate base year

- labour/non-labour proportion of capitalised overheads

- escalation of capitalised overheads.

In its revised proposal SP AusNet adopted the AER's fixed/variable proportions for each capex category from the Envestra South Australia and Queensland final decisions and calculated a weighted average fixed/variable proportion.[298]

In its revised proposal SP AusNet considered that capitalised overheads have the same properties as opex in the sense that costs will be higher in some years and lower in other years. SP AusNet submitted that actual costs in each year will depend on the size and complexity of the capex program, the mix of internal and external labour, wage escalation and changes in accounting policies. In light

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293 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, pp. 70–71.
294 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 71.
295 SP AusNet, *Revised access arrangement proposal: SP AusNet Capex Model Revised.xlsx*, 9 November 2012.
296 SP AusNet, *Access arrangement information*, March 2012, p. 130.
297 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – confidential appendix*, September 2012, pp. 49-50; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 72–73.
298 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, pp. 70–71.

of this, it considered the best estimate possible in the circumstances would be to use revealed 2011 capitalised overheads as the base year, consistent with the approach taken in forecasting opex.[299]

The AER does not agree that using revealed 2011 capitalised overheads as the base year is a reasonable basis for the forecast of overheads or that it results in the best estimate possible.[300] The variable and lumpy nature of capex means that using a single year of revealed capitalised overhead costs as the base for determining forecasts will likely result in SP AusNet being over- or under-compensated for capitalised overheads. As stated in the draft decision, there was a material variance in the overhead expenditure between 2008–11, therefore the AER considers an annual average of 2008–11 overheads is more representative of the overheads base expenditure for the 2013–17 access arrangement period.[301] Further, the AER considers it is not appropriate to assume overhead costs in the base year are efficient, as the incentive properties of the efficiency carryover mechanism (ECM) for opex and capex are different. This is because:

- Opex is recurring expenditure therefore the opex ECM rewards relative incremental efficiency gains. This results in continuous incentives to reduce opex (and therefore there is no incentive on the service provider to shift costs into the base year).
- Capex is lumpy, and mostly non-recurring, therefore the capex ECM rewards actual incremental efficiency gains. Unlike the opex ECM, there is no incentive to achieve relative efficiency gains, and therefore no disincentive on shifting costs into the base year.

As such, the AER is not satisfied that using SP AusNet's revealed 2011 capitalised overhead costs as the base year will result in a forecast for capitalised overhead costs that was arrived at on a reasonable basis or the best estimate possible in the circumstances.[302]

The AER notes that an equivalent outcome to using a base year approach to determining opex forecasts (or other recurring expenditure forecasts) in combination with applying an ECM is to use an average opex over the period without an ECM. As the AER is not confident that revealed 2011 capitalised overheads represents the best estimate of efficient base year costs, it has used an average of 2008–11 revealed capitalised overhead costs to determine the base year.[303]

SP AusNet's revised proposal retained the proportion between labour and non-labour in its capitalised overhead calculation from its initial proposal.[304] SP AusNet used this proportion to escalate the labour component of capitalised overheads for real labour cost growth. SP AusNet considered the labour component should be escalated for labour growth as it considers the labour proportion of capitalised overheads will increase in line with the prevailing labour index.[305]

The AER agrees that the labour proportion of capitalised overheads is likely to increase in line with the prevailing labour index. Therefore, it considers it appropriate to escalate capitalised overheads to account for this. On the basis of the information provided by SP AusNet, the AER considers the proposed labour/non-labour split is appropriate. Further, the AER agrees it is appropriate to escalate

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299 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, pp. 68–69.
300 NGR, rr. 74(2)(a), 74(2)(b).
301 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4 – confidential appendix*, September 2012, pp. 49-50; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, pp. 72–73.
302 NGR, rr. 74(2)(a), 74(2)(b).
303 SP AusNet provided 2012 data for overheads. However, the AER did not use this data as it was not audited data and given that the apportionment of overheads is subject to a degree of discretion, the AER did not consider it to be a confirmed final number.
304 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 69.
305 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 71.

the entire labour component of SP AusNet's capitalised overheads by an average of the AER approved internal and external labour escalators (see section 4.5 for a discussion of the labour escalators).

SP AusNet provided more information supporting its proposed scale escalation of capitalised overheads.[306] It adopted the fixed/variable splits for the individual capex categories which the AER applied in its final decision for Envestra SA and Queensland and used a weighted average of these proportions for its scale escalation of overheads. The AER considers there is unlikely to be significant differences between the overhead allocations by gas distribution networks, particularly where the majority of capital expenditure is outsourced. The AER therefore considers that the application of the average of the apportionment of overheads in the Envestra South Australia and Queensland decisions is a reasonable basis for the forecast and will result in the best estimate.[307]

The AER considers a total overhead cost of $61.3 million ($2012) for SP AusNet is conforming capex (Table 4.19).

Table 4.19 Final decision—Overheads ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	13.2	13.5	13.4	13.8	14.2	68.2
AER draft decision	11.6	11.6	11.6	11.6	11.6	57.9
SP AusNet revised proposal	12.6	12.8	12.9	12.9	13.0	64.2
AER final decision	12.2	12.3	12.4	12.2	12.1	61.3

Source: AER analysis

4.4.10 Government and customer contributions

The AER's final decision is to approve $22.7 million ($2012) in total customer and government contributions for the 2013–17 access arrangement period (see Table 4.20) as conforming capex.[308]

In the final decision, the AER has recalculated the forecast customer contributions using the same scaling methodology for customer contributions for residential and commercial/industrial connections used in SP AusNet's revised proposal.[309] This reflected the AER's draft decision.[310] This recalculation takes into account the AER's final decision on the capital expenditure approved for residential and commercial/industrial connections and extensions on the Victorian network for the 2013–17 access arrangement period.

In its initial proposal SP AusNet submitted total customer and government contributions of $22.2 million ($2012) over the 2013–17 access arrangement period for new customer connections, major alterations and the new gas extension program.[311, 312]

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306 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, pp. 70–71.
307 NGR, r.74(2).
308 NGR, r. 79(1))(a).
309 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 73; SP AusNet, *Revised access arrangement proposal: SP AusNet Capex Model Revised.xlsx*, 9 November 2012.
310 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4—confidential appendix*, September 2012, pp. 50-51; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 73.
311 SP AusNet, *Access arrangement information*, March 2012, pp. 101–102.

In the draft decision, the AER reduced the contributions associated with connections in proportion to the reduction in expenditure approved for connections. This resulted in approved total customer contributions of $14.9 million ($2012) and government contributions of $6.8 million ($2012) over the 2013–17 access arrangement period.[313]

In its revised proposal SP AusNet adopted the AER's methodology for calculating government and customer contributions. However, SP AusNet submitted that contributions associated with major alterations should be classified as customer contributions so that the 'government contribution' category is defined as government contributions for 'projects which are undertaken to service specific gas consumers'.[314] The AER accepts SP AusNet's justification for classifying contributions for major alterations as customer contributions. For the final decision, the AER has included these contributions in customer contributions on the basis that it has no impact on the RAB or the revenue requirement.

Table 4.20 AER final decision—customer and government contributions ($million, 2012)

	2013	2014	2015	2016	2017	Total
Total customer and government contributions	4.0	5.8	4.2	4.3	4.4	22.7

Source: AER analysis.

4.5 Adjustments to labour and material escalation

The AER's final decision is not to approve SP AusNet's proposed labour cost escalators (see appendix A). Applying the proposed escalators will not result in forecast operating expenditure (opex) and capital expenditure (capex) that is arrived at on a reasonable basis.[315] Nor do they provide the best possible forecasts of opex and capex in the circumstances.[316] The AER has revised down the labour and material escalation that was proposed by SP AusNet. This leads to the following further revisions to SP AusNet's proposed capex (see Table 4.21).

Table 4.21 Comparison of AER approved including labour and material escalation adjustment and SP AusNet capital expenditure over the 2013–17 access arrangement period ($million, 2012)

Category	SP AusNet proposed	AER approved excluding AER labour and material escalation adjustments	AER approved including AER labour and material escalation adjustments	Variance between SP AusNet proposed and AER approved including labour and material escalation adjustment
Mains replacement	132.9	113.5	110.7	–22.2
Residential connections	181.9	181.1	176.8	–5.1
Commercial/ industrial connections	19.4	16.6	16.2	–3.2

312 SP AusNet, *Email to AER: Business Case Application for Approval—Huntley New Towns Gas Development*, 28 June 2012, pp. 4–5

313 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 4—confidential appendix*, September 2012, pp. 50-51; AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017: Part 2*, September 2012, p. 73.

314 SP AusNet, *Revised access arrangement proposal – Chapter 2: Capital expenditure*, 9 November 2012, p. 73.

315 NGR, r. 74(2)(a).

316 NGR, r. 74(2)(b).

Residential meter replacement	23.0	23.0	22.7	–0.4
Commercial/industrial meter replacement	5.0	5.0	4.9	–0.1
Augmentation	22.2	22.2	21.8	–0.4
IT	48.6	48.6	48.6	0.0
SCADA	4.3	4.3	4.2	–0.1
Other	20.1	20.1	19.7	–0.4
Gas Extensions—NGEP	2.8	2.9	2.9	0.0
Capital overheads	64.2	61.3	60.3	–3.9
Total gross capital expenditure	524.6	498.6	488.8	–35.8
Customer contributions	21.0	21.0	21.0	0.0
Government contributions	1.7	1.7	1.7	0.0
Total net capital expenditure	501.9	475.9	466.1	–35.7

Source: AER analysis

4.6 Equity raising costs

Service providers incur equity raising costs when they need to raise new equity from outside the business. The AER's equity raising cost benchmark allows for costs in the form of dividend reinvestment plan costs and seasoned equity offerings. A prudent service provider acting efficiently would incur equity raising costs. Accordingly, the AER provides an allowance to recover an efficient amount of equity raising costs where a service provider's capex forecast is large enough to require an external equity injection (to maintain the benchmark 60:40 debt to equity ratio).

Broadly, the AER's method applies the cash flow analysis in the post–tax revenue model (PTRM) to determine the required benchmark equity raising cost associated with forecast capex. This approach adopts the 'pecking order' theory of capital structure. This theory predicts that an efficient service provider will seek to raise capital starting from the lowest cost forms and moving to higher cost forms as the lower cost forms are exhausted.[317]

Based on the need for any dividend reinvestment plans and seasoned equity offerings, the AER assigns transaction unit costs for each form of equity funding. They are based on the AER's empirical review in assessing the benchmark costs for raising equity finance: [318]

- Retained earnings—0 per cent
- Dividend reinvestment plans—1 per cent of total dividends reinvested
- Seasoned equity offerings—3 per cent of total external equity required.

317 ACG, Estimation of Powerlink's SEO transaction cost allowance–Memorandum, 5 February 2007.

318 Final decision, TransGrid transmission determination 2009–10 to 2013–14, April 2009, pp. 233–244. ACG, Debt and Equity Raising Transaction Costs, Final Report to the Australian Competition and Consumer Commission, December 2004, p xiii, 65. Handley, A note on the cost of raising debt and equity capital, April 2009.

The AER considers that these unit costs represent the efficient costs required to raise equity in current market conditions because they have been suitably estimated by the AER[319] and ACG,[320] and subsequently reviewed.[321]

The AER considers that this method represents the approach that a prudent service provider acting efficiently would apply in raising equity, given its particular capital raising requirements. This is because the method:

- assumes that service providers first use the cheapest sources of equity
- takes account of all the likely sources of equity
- takes account of the requirements of a prudent service provider acting efficiently, by using the inputs and outputs of the PTRM as found by the AER to be efficient.

The AER's draft decision for SP AusNet outlines the AER's equity raising cost method more fully.[322]

The AER adopted its preferred equity raising cost method in its draft decision for SP AusNet. It determined that no equity raising costs were required.[323] SP AusNet's revised proposal adopted the AER's preferred method and SP AusNet did not comment on the method.[324] The AER therefore agrees with SP AusNet's revised proposal and the AER will adopt its preferred equity raising cost method for this final decision.

The AER has used the updated PTRM inputs and outputs to estimate the costs and total allowance for SP AusNet. Table 4.22 and Table 4.23 show the cash flow analysis calculated in the PTRM for SP AusNet's benchmark equity raising cost. Table 4.22 sets out (in nominal terms) the derivation of the required new equity for the network service provider. The second part of the cashflow analysis (in real terms) derives the benchmark allowance for raising this equity and is set out in Table 4.23. These tables demonstrate that SP AusNet does not require an equity raising cost allowance based on the amount of forecast capex.

Benchmark equity raising costs

The AER has applied its updated equity raising costs method along with the updated PTRM inputs and outputs to determine that SP AusNet requires no benchmark equity raising costs.

Table 4.22 AER's final decision cash flow analysis for SP AusNet benchmark equity raising cost ($million, nominal)

Cash flow analysis	Total	Notes
Dividends	51.58	Set to distribute imputation credits assumed in the PTRM (70%).
Dividends reinvested	15.47	Availability of reinvested dividends, capped at 30% dividends paid.

319 Final decision, TransGrid transmission determination 2009–10 to 2013–14, April 2009, pp. 233–244.
320 ACG, Debt and Equity Raising Transaction Costs, Final Report to the Australian Competition and Consumer Commission, December 2004, p xiii, 65.
321 Handley, *A note on the cost of raising debt and equity capital,* April 2009.
322 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017 Part 2 attachments, September 2012, p. 75-7.
323 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017 Part 2 attachments, September 2012, p. 78-80
324 SP AusNet, Revised PTRM, ''equity raising costs' tab.

Capex funding requirement	494.67	Forecast capex funding requirement (including half year WACC adjustment).
Debt component	231.72	Set to equal 60% of annual change in RAB.
Equity component	262.95	Residual of capex funding requirement and debt component.
Retained cash flow available for reinvestment	311.13	Exclude dividends reinvested.
Equity required	–48.19	Equals equity component less retained cash flows.

Source: AER analysis.

Table 4.23 AER's final decision cash flow analysis for SP AusNet benchmark equity raising cost ($million, 2012–13)

Cash flow analysis	Total	Notes
Equity component	244.07	Residual of capex funding requirement and debt component.
Retained cash flow available for reinvestment	290.53	Exclude dividends reinvested.
Equity required	–46.46	Equals equity component less retained cash flows.
Dividends reinvested	14.19	Availability of reinvested dividends, capped at 30% dividends paid.
Dividend reinvestment plan required	0.00	Required reinvested dividends.
Seasoned equity offerings required	0.00	Required seasoned equity offerings (SEOs).
Cost of dividend reinvestment plan	0.00	Required reinvested dividends multiplied by benchmark cost.
Cost of seasoned equity offerings	0.00	Required SEOs multiplied by the benchmark cost.
Total equity raising costs	0.00	Sum of costs of dividend reinvestment plan and SEOs. To be added to the RAB at the start of the access arrangement period.

Source: AER analysis

4.7 Revisions

The AER proposes the following revisions to make the access arrangement proposal acceptable:

Amendment 4.1: Make all necessary amendments to reflect the AER's draft decision on forecast capex by asset class over the access arrangement period, as set out in Table 4.2.

5 Rate of return

The return on capital is to be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.[325]

The AER calculates SP AusNet's return on capital building block by multiplying the rate of return with the value of SP AusNet's capital base. Consistent with SP AusNet's revised proposal and previous AER decisions, the rate of return adopted by the AER is the nominal 'vanilla' weighted average cost of capital (WACC) specification.[326]

5.1 Final decision

The AER does not approve SP AusNet's proposed rate of return of 7.82 per cent (nominal vanilla).[327] The AER considers 7.07 per cent is a preferable alternative that is commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services. The AER's rate of return for SP AusNet combines a cost of equity of 7.94 per cent and a cost of debt of 6.50 per cent.

Consistent with the draft decision, the AER agrees with a number of aspects of SP AusNet's proposed rate of return in its revised access arrangement proposal. Specifically, the AER agrees with:

- adopting a weighted average of the cost of equity and the cost of debt (known as the weighted average cost of capital (WACC)) to determine the rate of return
- adopting a 60 per cent gearing ratio
- adopting the capital asset pricing model (CAPM) to determine the cost of equity
- adopting the yield on 10 year Commonwealth Government Securities (CGS) as the proxy for the risk free rate
- adopting a 0.8 equity beta
- adopting a 6 per cent market risk premium (MRP)
- specifying the cost of debt as the debt risk premium (DRP) over the risk free rate
- determining the DRP by defining the benchmark bond as a 10 year corporate bond with a BBB+ credit rating and measuring the benchmark bond rate using the extrapolated Bloomberg BBB rated 7 year fair value curve (FVC)
- extrapolating the Bloomberg BBB rated 7 year FVC to a 10 year maturity (consistent with the definition of the benchmark bond) using 'paired bond' analysis
- adopting a recent and short term averaging period for determining the risk free rate and DRP components of the cost of debt (specifically, the 20 business day period from 12 November 2012 to 7 December 2012)

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325 NGR, r.87(1).

326 A nominal vanilla WACC is the combination of a nominal post-tax cost of equity and a nominal pre-tax cost of debt.

327 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, p. 47. SP AusNet's revised proposal document stated a nominal vanilla WACC of 7.96 per cent. This was based on an indicative estimate for SP AusNet's proposed cost of debt, because SP AusNet's proposed averaging period for the cost of debt had not yet expired. The AER has updated this estimate, based on SP AusNet's proposed averaging period, which produces a nominal vanilla WACC of 7.82 per cent.

- determining forecast inflation based on the Reserve Bank of Australia's (RBA's) short term forecasts and the mid-point of the RBA's inflation targeting band.

The AER does not agree with SP AusNet's proposed historical averaging period for determining the risk free rate component of the cost of equity. [328] Rather, the AER adopts a recent and short term averaging period. The AER has used the risk free rate averaging period SP AusNet proposed and with which the AER agreed for the cost of debt. The AER's position on the averaging period in this final decision is consistent with its position in the draft decision.

The individual WACC parameters and consequent overall rate of return are set out in Table 5.1.

Table 5.1 AER's final decision on SP AusNet's rate of return (nominal)

Parameter	AER draft decision[(a)]	SP AusNet revised proposal[(a)]	AER final decision
Nominal risk free rate (cost of equity)	3.14%	5.00%	3.14%
Nominal risk free rate (cost of debt)	3.14%	3.14%	3.14%
Equity beta	0.80	0.80	0.80
Market risk premium	6.00%	6.00%	6.00%
Debt risk premium	3.35%	3.35%	3.35%
Gearing ratio	60.00%	60.00%	60.00%
Inflation forecast	2.50%	2.50%	2.50%
Nominal post-tax cost of equity	7.94%	9.80%	7.94%
Nominal pre-tax cost of debt	6.50%	6.50%	6.50%
Nominal vanilla WACC	7.07%	7.82%	7.07%

Source: SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, and AER analysis.

(a) The AER draft decision and SP AusNet revised access arrangement proposal parameters have been updated to reflect the final averaging period, based on the respective methodologies. The parameters published in the draft decision and revised access arrangement proposal were calculated based on indicative averaging periods, and hence differ from those in the above table for some parameters.

SP AusNet's rate of return in this decision is similar to the rates the AER determined in decisions over the past year.[329] It is lower than rates the AER determined in decisions before then. Nonetheless, the AER considers its decision on the rate of return is commensurate with prevailing conditions in the market for funds and the risk involved with providing reference services.

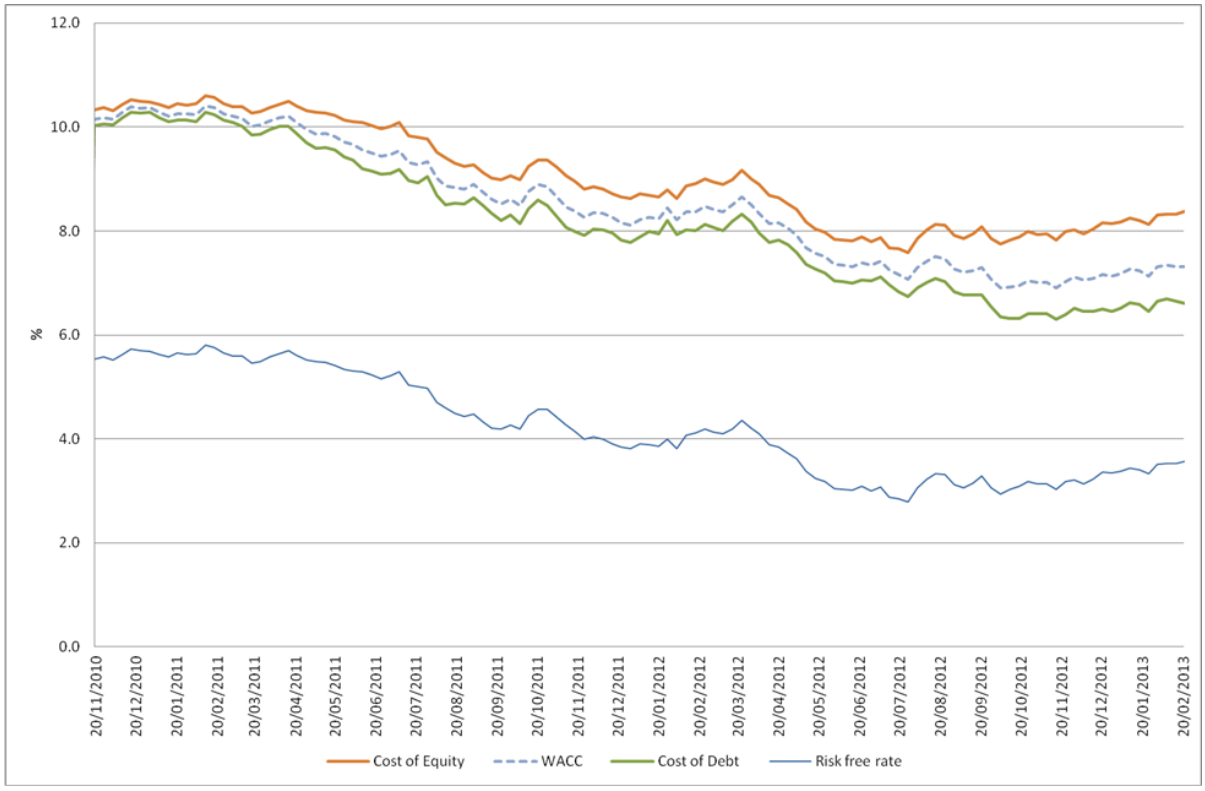
The cost of debt has fallen by approximately 1.5 per cent from its level in late 2011 and early 2012. As a result, the AER and SP AusNet agree that the lower cost of debt that currently prevails has reduced

328 Specifically, SP AusNet proposed a 10 year average to October 2012 minus actual inflation over the period, plus forecast inflation of 2.5 per cent. This was one of two alternatives proposed by CEG. CEG, *Response to the AER Vic gas draft decisions*, November 2012, p. 16.

329 AER, *Final decision: APT Petroleum Pipeline Pty Ltd, Access arrangement final decision, Roma to Brisbane Pipeline 2012–13 to 2016–17*, August 2012; AER, *Final distribution determination, Aurora Energy Pty Ltd 2012–13 to 2016–17*, April 2012.

the overall rate of return from the levels that prevailed around a year ago (all things equal). The cost of debt in this decision accounts for 60 per cent of the overall rate of return. The AER and SP AusNet agree on the approach to determining the cost of debt. Figure 5.1 illustrates the results from applying the AER's rate of return approach in this decision over time.

Figure 5.1 AER's rate of return approach over time (nominal, per cent)[330]



In this access arrangement review, the cost of equity is the key area of disagreement. SP AusNet's revised access arrangement proposal maintains its initial proposal position. SP AusNet's main submission was that the AER mixes a "spot" risk free rate with a "long term" average MRP and this currently produces a cost of equity that is too low.[331] As part of this submission, SP AusNet suggested the cost of equity is relatively stable over time, and related to this point, that the risk free rate and MRP are strongly negatively correlated.[332]

The AER acknowledges that SP AusNet was concerned with the impact of the lower risk free rate on its cost of equity and this is a driving factor in its proposing a historical average risk free rate for use in calculating the cost of equity.[333]

As illustrated in Figure 5.1, the risk free rate has been continuously less than 4 per cent since early 2012.[334] Combined with a 0.8 equity beta and 6 per cent MRP, this has resulted in a cost of equity in

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330 This chart illustrates the AER's current approach extrapolated backwards (assuming a 6 per cent MRP over that period). The starting date is chosen as this is when paired bond data was first available (the paired bond approach is applied in this decision when determining the debt risk premium - see attachment 5.3.5 below for further discussion).

331 This is an incorrect characterisation of the AER's approach. The AER estimates a 10 year forward looking risk free rate and a 10 year forward looking MRP. See below and appendix B for more detail.

332 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, p. 2.

333 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, p. 7.

334 The 10 year CGS yield fell below 3 per cent for a brief period in June and July 2012.

AER decisions since this time that is lower than earlier decisions. The AER has made determinations for Aurora, the Roma-to-Brisbane (RBP) pipeline, and now the Victorian gas businesses, over this time period[335]. In each decision, the cost of equity arising from the low risk free rate has been a contentious issue, and the AER has considered the matter carefully.

The material in the next few pages provides a high level overview of the process the AER has employed to assess the proposals and subsequent material submitted by the Victorian gas businesses on the cost of equity. A brief summary of the AER's key reasons for its decision then follows. A more detailed explanation of the AER's reasons is then set out later in this attachment. Further detailed consideration of some specific issues is then set out in a separate appendix.

5.1.1 AER process

In view of the substantial material SP AusNet submitted, the AER has carefully reconsidered the issues raised and has also reassessed its analysis and reasons for the draft and this decision. It has also obtained additional expert advice on the material submitted SP AusNet. The AER has also extended and expanded its analysis in areas questioned by SP AusNet. In particular, in the areas of:

- the relationship between the risk free rate and the MRP, and the related issue of the extent of stability in the cost of equity over time
- the relationship between the cost of debt and the cost of equity, and the extent to which changes in the cost of debt over time can be used to inform the estimation of the cost of equity.

The AER has sought a substantial amount of expert advice on the cost of equity over the past 12 months. The advice has come from:

- the Reserve Bank of Australia (RBA)
- the Commonwealth Treasury and Australian Office of Financial Management (AOFM)
- finance academics (Professor McKenzie and Associate Professor Partington from the University of Sydney; Associate Professor Lally from the Victoria University of Wellington), and
- an economic consultancy firm (Cambridge Economic Policy Associates (CEPA))

The AER has sought advice on a wide range of issues associated with the cost of equity. This has included seeking follow up advice from certain experts to consider comments raised by SP AusNet and its consultants. This process has included:

- In a submission as part of the Aurora determination process, CEG suggested CGS yields might not be an appropriate proxy for the risk free rate in current market circumstances.[336] The AER sought advice from the RBA, Commonwealth Treasury and AOFM. They each advised that the CGS market remains liquid and well functioning. The RBA also advised that CGS bonds remained the best proxy for the risk free rate in Australia.[337]

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335 Note over this period, the AER also made determinations for Powerlink and is in the process of making determinations for Murraylink and ElectraNet. However these transmission determinations are not comparable to other AER decisions over this time as the WACC approach and parameters were largely prescribed by the NER and the 2009 WACC review.

336 CEG, *A report on the cost of equity in Aurora's revised proposal: Prepared for Citipower, Jemena, Powercor, SP AusNet, and United Energy*, February 2012, p. 12.

337 See section 5.3.2 below for further discussion.

- In 2011, the AER commissioned a report on the MRP from Professor McKenzie and Associate Professor Partington that comprehensively reviewed each major class of evidence on the MRP. McKenzie and Partington recommended the AER adopt 6 per cent. A regulated business questioned the relevance of the report because it did not directly consider the MRP in the context of a historically low risk free rate.[338] The AER sought further advice from McKenzie and Partington. The experts concluded there are good reasons for the AER to adopt a 6 per cent MRP and they saw no reason to switch from using the current 10 year CGS yield as the proxy for the risk free rate.[339]

- In the draft decision, the AER set out its reasons for adopting a prevailing risk free rate and 6 per cent MRP and published consultants' reports it had commissioned and accepted in forming this position. This provided an opportunity for the Victorian gas businesses, including SP AusNet, to respond to this position. The businesses did respond to this position and provided substantial additional material. The AER subsequently sought further advice from experts to critically review their original advice in light of the new material submitted by the businesses.

- For this final decision, the AER sought advice from three separate experts on the reasonableness of adopting prevailing risk free rate and 6 per cent MRP.

    - In a third report, McKenzie and Partington concluded the AER's approach was reasonable. This report contains an extensive review of the theoretical and empirical evidence on the relationship between the risk free rate and MRP. McKenzie and Partington's conclusion is based on a more comprehensive analysis of the academic literature on this issue than that contained in the consultant reports submitted by the Victorian gas businesses.

    - Associate Professor Lally also concluded it is reasonable for the AER to adopt a prevailing risk free rate and 6 per cent MRP.

    - CEPA indentified some concerns with the AER's approach. However, current market evidence suggests the AER's current estimate is in line with market expectations. It concluded that, based on various criteria it identified, the AER should not change its estimation approach.

5.1.2 Overview of reasons

Compared with the cost of debt, the cost of equity is more challenging to estimate. This is because the cost of debt is observable while the cost of equity is not.[340] Accordingly, a model must be used to estimate the cost of equity. The NGR require that the AER use a well accepted financial model to estimate the cost of equity. The AER and SP AusNet agree that it is appropriate to use the Sharpe-Lintner capital asset pricing model (Sharpe CAPM) for this purpose.

This model requires the estimation of three parameters:

- The risk free rate—this compensates investors for the time value of money. This is compensation for an investor having committed funds to an investment for a period of time and therefore forgoing the opportunity to spend that money and consume goods now.

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338 Aurora, *AER's draft distribution determination—Return on capital*, Submission, 20 February 2012, p.2.

339 M. McKenzie, and G. Partington, *Report to Corrs Chambers Westgarth: Equity market risk premium*, December 2011, p. 37. (McKenzie and Partington, *Equity market risk premium*, December 2011)

340 See, for example, RBA, *Latter to the AER*, July 2012, p. 1. The cost of debt can be observed by looking at yields on market traded bonds that match the benchmark characteristics, or fair value curves published by financial data service providers that match the benchmark characteristics.

- The market risk premium (MRP)—this compensates an investor for the systematic risk of investing in the market portfolio or the "average firm" in the market. Systematic risk is risk that effects all firms in the market (such as macroeconomic conditions and interest rate risk) and cannot be eliminated or diversified away through investing in a wide pool of firms.
- The equity beta—this reflects the systematic risk exposure of a particular firm, relative to the average firm in the market.

While the equity beta is difficult to estimate with precision, the AER and SP AusNet agree that 0.8 is a reasonable estimate for this parameter in this determination.

In determining the two remaining parameters within the Sharpe-Linter CAPM, the AER estimates:

- a 10 year forward looking risk free rate based on prevailing conditions in the market for funds, and
- a 10 year forward looking MRP based on prevailing conditions in the market for funds.

Conceptually, the adoption of a 10 year forward looking risk free rate and a 10 year forward looking MRP, based on prevailing conditions in the market for funds at the commencement of the access arrangement period:

- is consistent with the present value principle—this principle states that the present value of a regulated business's revenue stream should match the present value of its expenditure stream (plus or minus any efficiency rewards or penalties). As Lally explains, this is a fundamental principle of economic regulation. Satisfying this principle both promotes efficient investment and avoids the excess profits that regulation seeks to prevent.[341]
- is consistent with the building block model
- is consistent with the Sharpe-Lintner CAPM
- is internally consistent, and
- promotes regulatory certainty and consistency.

Practically, in estimating a 10 year forward looking risk free rate, the AER adopts the prevailing yield on 10 year CGS averaged over a period which is short and as close as practicably possible to the commencement of the access arrangement period.[342] The AER adopts this method because:

- An observable market proxy for the risk free rate is available.
- The yield on CGS is the best proxy for the risk free rate in Australia, as supported by RBA advice.
- The RBA, Commonwealth Treasury and AOFM advised that the CGS market is liquid and functioning well.[343]

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341 M. Lally, *The risk free rate and the present value principle*, 22 August 2012, p. 8, (Lally, *Risk free rate and present value*, August 2012)

342 The exact dates of the averaging period are proposed by the regulated business and are accepted by this AER so long as the proposed period: (1) is short (10-40 business days); (2) is as close as practicably possible to the commencement of the access arrangement period; (3) is nominated in advance.

343 Reserve Bank of Australia, *Letter to the ACCC: The Commonwealth Government Securities Market*, 16 July 2012, (RBA, *Letter regarding the CGS market*, July 2012); Australian Treasury and Australian Office of Financial Management, *Letter to the ACCC: The Commonwealth Government Securities Market*, 18 July 2012, p. 2 (Treasury and AOFM, *Letter regarding the CGS Market*, July 2012).

- CGS yields are an observable market determined parameter.
- The prevailing rate at any point in time is the benchmark that returns on risky investments must better
- Prevailing 10 year CGS yields reflect expectations of the risk free rate over the appropriate forward looking investment horizon (which is 10 years).
- Selecting an averaging period in advance ensures the method is unbiased.
- There is no clear evidence that CGS yields are abnormally low. McKenzie and Partington suggest that the current rates may be consistent with a longer term trend.

In estimating a 10 year forward looking MRP, the AER adopts 6 per cent. After carefully assessing the information submitted by the Victorian gas businesses, the AER remains of the view that the available evidence supports a MRP of 6.0 per cent as commensurate with prevailing conditions in the market for funds. This is because:

- historical excess returns—these estimates provide a range of 4.9–6.1 per cent if calculated using an arithmetic mean and a range of 3.0–4.7 per cent if calculated using a geometric mean.
- academic research on excess return predictability—over the past decade, there is an increased scepticism about the ability for particular variables to predict returns. New empirical evidence has cast doubt on previous empirical evidence that suggested particular variables were good predictors of returns. Some studies indicate there is no better forecast of excess returns than the historical average.
- forward looking MRP measures—these give mixed results, and are each subject to various limitations. On the one hand, dividend growth model (DGM) estimates suggest the MRP is in the range of 5.9–8.4 per cent. These estimates were provided by Associate Professor Lally who used CEG's DGM method, after adjusting for certain deficiencies in CEG's method. On the other hand, implied volatility based MRP estimates suggest the MRP is currently below its historical average level.
- survey evidence—surveys of market practitioners consistently support 6 per cent as the most commonly adopted value for the MRP. These surveys also indicate that the average MRP adopted by market practitioners was approximately 6 per cent.
- recent Tribunal decisions—the Tribunal held the view that it was open for regulators to adopt a 6 per cent MRP in all of the recent decisions where regulated businesses sought Tribunal review.
- consultant advice—Associate Professor Lally, Professor McKenzie and Associate Professor Partington all advised the AER that a 6 per cent MRP is reasonable in the prevailing market conditions in their most recent reports and CEPA found the valuation reports do support an MRP that is equal to about 6 per cent.
- recent decisions among Australian regulators—the AER notes both the ERA and the QCA consistently adopted an MRP estimate of 6 per cent under the same CAPM framework. The AER also notes while the IPART consistently adopted an MRP range of 5.5–6.5 per cent, it has made an upward adjustment to the overall WACC in its recent decisions due to the current low risk free rate.

The AER is aware that there are some academic papers that present a plausible argument for an inverse relationship between the risk free rate and MRP. Accordingly, the AER has given careful

consideration to this issue in estimating the MRP. The advice from McKenzie and Partington provides a comprehensive review of the academic literature on the theoretical and empirical evidence on the relationship between these two parameters. Among other findings, McKenzie and Partington note:

> Ang and Bekaert (2007) find a negative relationship between short term risk free rates and the equity risk premium. The general message of Ang and Bekaert's work, however, is that "… predictability is mainly a short-horizon, not a long-horizon phenomenon" (p.696). Their implication is that predictive regressions might help forecast market returns at say a one year horizon, but are little use at say a ten year horizon.[344]

This is relevant to the present matter as the AER is estimating a 10 year forward looking MRP, not a short term MRP.

Overall, McKenzie and Partington find that there is evidence to support both a positive and negative relationship between the risk free rate and MRP. They conclude:

> An examination of the relevant evidence leads us to conclude that the relation between the MRP and the level of interest rates is an open question and that the relation, if any, is not sufficiently well established to form the basis for a regulatory adjustment to the MRP.[345]

The AER also considers reasonableness checks on the overall rate of return. These reasonableness checks suggest that the overall rate of return broadly accords with market expectations. For example, recent regulated assets have generally been sold at a premium to the RAB. In addition, recent RAB trading multiplies are consistently greater than one (averaging around 1.2). This evidence provides the AER with a degree of confidence that its approach to determining the rate of return is reasonable.

5.2 Assessment approach

The AER's assessment approach for this final decision is consistent with that adopted in the draft decision. This material is not reprinted here; see section 4.2 of attachment 4 – Rate of Return of the draft decision for this detail.[346] The section below sets out the AER's further observations on its assessment approach, including discussion of material arising subsequent to the draft decision.

5.2.1 Requirements of the national gas law and rules on the rate of return

In this section the AER considers the requirements of the NGR and NEL on the rate of return, including in the interpretation of relevant provisions of the NGR in recent Tribunal decisions.

Rule 87 of the NGR states:

> 1) The rate of return on capital is to be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.
>
> 2) In determining a rate of return on capital:
>
> a) it will be assumed that the service provider:
>
> i) meets benchmark levels of efficiency; and
>
> ii) uses a financing structure that meets benchmark standards as to gearing and other financial parameters for a going concern and reflects in other respects best practice; and

344 M. McKenzie, and G. Partington, *Review of the AER's overall approach to the risk free rate and market risk premium,* February 2013,, p.26 (McKenzie and Partington, *Review of the AER's overall approach*, February 2013).

345 McKenzie and Partington, *Review of the AER's overall approach*, February 2013, p. 6.

346 AER, *Draft decision - Attachment: SPI Networks*, September 2012, pp. 84-92.

> b) a well accepted approach that incorporates the cost of equity and debt, such as the Weighted Average Cost of Capital, is to be used; and a well accepted financial model, such as the Capital Asset Pricing Model, is to be used.

The AER understands rule 87 operates as follows:

- Rule 87(1) describes the objective in determining the WACC but not how to achieve the objective.
- Rule 87(2) describes how to achieve the objective, including through a well accepted approach (such as the WACC) and through a well accepted financial model (such as the CAPM).
- Rule 87(1) informs the selection of input parameters for the well accepted approach and well accepted financial model. Through the determination of appropriate parameters, it is expected that the overall rate of return will reflect prevailing conditions in the market for funds and the risk involved in providing reference services.[347]

This is consistent with the Tribunal's construction of rule 87 in the ATCO and WAGN matters.

Rule 87 is a full discretion provision. This means the AER may, but is not bound to, approve SP AusNet's proposed rate of return if that rate complies with, and is consistent with, the NGL's and NGR's requirements and criteria. The AER has the discretion to withhold its approval it considers a preferable alternative exists that complies with, and is consistent with, those requirements and criteria. Further, if an access arrangement contains a fixed principle on the rate of return then that fixed principle is binding on the AER and the service provider for the period for which the principle is fixed.[348]

If the AER does not approve SP AusNet's access arrangement, then the AER must formulate an access arrangement that accounts for:

- the matters that the NGL and NGR require an access arrangement to include
- the service provider's access arrangement proposal, and
- the AER's reasons for refusing to approve that proposal.[349]

This list is not exhaustive, and the service provider's proposal is not the only source of information that the AER considers when assessing the proposed rate of return. Other regulatory processes provide relevant information sources, because issues with the cost of capital are generally not specific to a service provider. Further, many issues have evolved across a long history of consideration by the AER and other regulators.

The AER considers information that includes:

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347 In its revised proposal, SP AusNet submitted that it is the result of applying a well accepted financial model (in this case, the Sharpe-Linter CAPM) that is to be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services. The AER agrees with this interpretation. Conceptually, the AER's approach to implementing this is to estimate a risk free rate that is commensurate with prevailing conditions in the market for funds (i.e. a forward looking risk free rate) and a MRP that is commensurate with prevailing conditions in the market for funds (i.e. a forward looking MRP). It follows logically that if each parameter within the Sharpe-Lintner CAPM is commensurate with prevailing conditions, then so too will the total cost of equity be. In contrast, the Victorian gas distribution businesses proposed a historical average risk free rate and a historical average MRP. That is, conceptually, they proposed input parameters that are not commensurate with prevailing conditions, yet considered the combination of these input parameters would result in a cost of equity that is commensurate with prevailing conditions. This approach relies on the assumption that the cost of equity is stable over time.

348 NGR r. 99 (3).

349 NGR r. 64(2).

- previous AER decisions, including the AER's 2009 review of WACC parameters for electricity service providers (the WACC review) and resulting Statement of Regulatory Intent (SRI)
- the service provider's proposal
- expert reports commissioned by the AER, the service provider and other stakeholders
- the decisions of the Tribunal
- the decisions of other economic regulators, particularly in Australia
- submissions

In performing or exercising an economic regulatory function or power, the AER must do so in a manner that will (or is likely to) contribute to the national gas objective.[350] Either the AER's approval or withholding of its approval of SP AusNet's proposed rate of return—and in the case of the latter the AER's determination of a preferable rate of return—is an AER economic regulatory function or power. The national gas objective is:

> … to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.

In addition, the AER must account for the revenue and pricing principles when approving or making the parts of an access arrangement that relate to a reference tariff.[351] The rate of return is such a part, so the AER must account for the following[352]:

- A service provider should have a reasonable opportunity to recover at least the efficient costs that it incurs in providing reference services[353]
- A service provider should have effective incentives to promote economic efficiency in the reference services that it provides. That economic efficiency should include efficient investment in, or connection with, a pipeline that the service provider uses to provide reference services.
- A reference tariff should allow for a return that matches the regulatory and commercial risks from providing the reference services to which that tariff relates.
- A reference tariff should account for the economic costs and risks of potential under or over investment by a service provider in a pipeline that the service provider uses to provide pipeline services.

In the sections that follow, the AER determines SP AusNet's rate of return in a manner consistent with the NGO, revenue and pricing principles and rule 87 of the NGR.

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350 NGL s. 28(1).
351 NGL s. 28(2)(a)(i)
352 NGL, s. 24.
353 SP AusNet submitted a report by PriceWaterhouseCoopers. Among other matters, the report discussed the asymmetric consequences of setting the rate of return too high and too low. The AER considers this matter is embodied in the revenue and pricing principle that service providers should have a reasonable opportunity to recover at least efficient costs. Therefore, by applying the revenue and pricing principles, the AER considers it takes into account the matters raised by PWC. Further, Lally noted the equivalence of the principle of providing a reasonable opportunity to recover at least efficient costs and the present value principle. Lally, *The risk free rate and the present value principle*, 2012. The present value principle is considered extensively in relation to the rate of return in this decision.

5.2.2 Submissions from stakeholders

On the rate of return, the AER received submissions on its draft decision and the Victorian gas businesses' revised proposals from:

- the Energy Users Coalition of Victoria (EUCV)[354], and
- the Victorian Minister for Energy and Resources[355]

On the relationship between the risk free rate and MRP, the EUCV considers the adoption of a higher MRP when the risk free rate is low is not supported by the facts. It further states:

> The EUCV makes the rhetorical observation whether the massive debate as to the setting of the risk free rate would have been raised if the bond rates were at the levels seen in the 1980s, with an average value of some 13%, rather than the current value of about 3? Would there be a debate that the return on equity has a constant value of about 12% when the AER approach would deliver a value of 19%?

The EUCV also state that, in the interests of regulatory certainty, the AER has advised it will review the cost of debt approach through industry-wide consultation as part of the next rate of return guideline process, rather than as part of the Victorian gas review. This is despite, in the EUCV's opinion, the current approach to the cost of debt imposing costs on consumers that are higher than warranted. The EUCV consider this context should be taken into account when considering changes to the cost of equity approach in this decision.

The Victorian Minister for Energy and Resources supported the AER's draft decision on the rate of return. The Minister also commented on the construction of rule 87 of the NGR.

5.2.3 Selection of well accepted approach and financial model

The AER accepts SP AusNet's proposal to determine the rate of return as the weighted average of the cost of equity and the cost of debt (the WACC approach), weighted 40 per cent to equity and 60 per cent to debt. The AER also accepts SP AusNet's proposal to determine:

- the cost of equity using the Sharpe Lintner CAPM, and
- the cost of debt as the summation of the risk free rate and DRP.

In the draft decision, the AER agreed with SP AusNet's approach to determining the rate of return and models to determine the cost of equity and cost of debt. The AER agreed with this approach because the weighted average cost of capital is a well accepted approach to determining the rate of return. The AER agreed with the financial models proposed by SP AusNet to determine the cost of equity and debt because these are also well accepted.[356]

SP AusNet also adopted the same WACC approach, use of Sharpe CAPM, and specification of the cost of debt in its revised access arrangement proposal. The AER is not aware of any new information that causes it to depart from its draft decision position. Accordingly, the AER accepts these aspects of SP AusNet's revised proposal.

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354 EUCV, *Victorian gas distribution revenue reset AER draft decision and revised applications*, January 2013

355 Hon. Michael O'Brien MP, Minister for Energy and Resources, *Victorian gas access arrangment review - Victorian government Submission*, 14 January 2013.

356 Australian Competition Tribunal, *Application by WA Gas Network Pty Ltd (No 3) [2012] ACompT*, 8 June 2012, paragraph 64.

5.2.4 Fixed principles on the rate of return

In the draft decision, and in accordance with r. 99(4)(a) of the NGR, the AER sought and received SP AusNet's consent to revoke the fixed principle in clause 7.2(4) of its 2008–2012 access arrangement.

The fixed principle required that the return on capital building block be calculated using a real (post tax) rate of return. In contrast, the AER's standard PTRM calculates the return on capital building block using a nominal post tax rate of return.

SP AusNet's initial (and revised) access arrangement proposal used the AER's standard PTRM for modelling its revenue requirements, and accordingly proposed to apply a nominal rate of return for the purposes of calculating the return on capital. However, the NGR requires that fixed principles included in SP AusNet's access arrangement are binding on both SP AusNet and the AER for the period over which they are fixed.[357]

Revoking the fixed principle removes the inconsistency between SP AusNet's fixed principle and its access arrangement proposal. Accordingly, the AER revokes the fixed principle in clause 7.2(4) of SP AusNet's 2008-12 access arrangement.

5.2.5 Approach to the determination of specific parameters

The AER's assessment approach for each parameter is set out in its draft decision. See section 4.2.4 of the draft decision for a detailed explanation of the assessment approach.

For clarity, and consistent with the draft decision, in this final decision the AER:

- estimates a 10 year forward looking risk free rate
- estimates a 10 year forward looking MRP
- taking into account the economic interdependencies between these two parameters, and
- based on prevailing expectations at the commencement of the access arrangement period.

In doing so, the AER maintains the integrity in estimation of each individual parameter when determining an estimate. The AER does not attempt to address a perceived problem in the estimation of one parameter through the estimation of another parameter. Maintaining the integrity of each parameter promotes rigour and robustness in the estimation of those parameters. Besides, the AER is unaware of any well accepted approach for making adjustments between these parameters without introducing subjectivity and regulatory risk.

The risk free rate and MRP are estimated using differing information. This reflects the differing nature of these two parameters. A proxy for the risk free rate is readily observable.[358] On the other hand, no such proxy is available for the MRP.[359]

Maintaining integrity between these two parameters is important. This including having regard to any economic interdependencies between these parameters.

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357 NGR r. 99(3)
358 See section 5.3.2 below for further discussion.
359 See section 5.3.3 below for further discussion.

Further, the AER's approach is internally consistent. This is because for both the risk free rate and MRP the AER is estimating a 10 year forwarding looking rate.

5.2.6 Reasonableness checks on the overall rate of return

In section 4.2.4 of the draft decision, the AER sets out its approach to the determination of each parameter within the overall rate of return. In addition, the AER has given appropriate consideration to reasonableness checks on the overall rate of return. This approach is consistent with the draft decision. See section 4.2.5 of the draft decision for further discussion of the assessment approach.

Overall, the AER:

- determines reasonable estimates for the input parameters into the CAPM (a well accepted financial model), which in turn feeds into the WACC (a well accepted approach)[360]
- gives limited consideration to the overall WACC estimates, in accordance previous Tribunal decisions[361] and the strengths and weaknesses of this approach.

The AER discusses the use of reasonableness checks further in section 5.3.8 and appendix B.

5.2.7 Promotion of regulatory certainty and consistency

As outlined above, the AER has carefully considered the material presented by the Victorian gas businesses on the cost of equity. The end result of this consideration is that the AER has decided to maintain its approach from the draft decision.

The AER has maintained its approach from the draft decision because it considers this approach is reasonable. And applying that approach to the Victorian gas businesses in this final decision, the AER considers this provides a cost of equity commensurate with prevailing conditions in the market for funds and the risks involved with providing reference services.

- Further, the cost of equity approach in this final decision is consistent with the AER's approach in previous decisions. This consistency:
- promotes certainty of process and predictability in regulatory decision making
- promotes symmetry in regulatory outcomes over time. It avoids a bias or arbitrariness in regulatory outcomes that may result from changing to a method that favours a particular outcome or stakeholder at a particular point in time (and then potentially reverting back to the previous method at a later point in time).[362]

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360 NGR, r. 87.

361 Australian Competition Tribunal, *Application by Envestra Ltd (No 2) [2012] ACompT 3*, 11 January 2012, paragraphs 166-167. See section 5.3.8 below for further discussion.

362 A source of potential bias in regulatory outcomes over time is when only the economic interdependencies between some but not all relevant parameters are considered. For example, in this review the Victorian gas businesses have argued in favour of a strongly negative relationship between the risk free rate and MRP. They have highlighted that this relationship is particularly important to take into account in this review because of the low risk free rate. However, the Victorian gas businesses have not considered whether there is a relationship between the risk free rate, MRP and equity beta. For example, it might be that the factors driving the low risk free rate also decrease (or increase) the equity beta of regulated utilities. The AER does not express a view on this relationship. It raises it instead to highlight the importance of considering the independencies between all relevant parameters. For the reasons expressed elsewhere in this decision, the AER does not consider the evidence on the risk free rate and MRP relationship is conclusive enough—in terms of the direction, strength or stability in this relationship—to warrant a higher MRP because of the low risk free rate. However, even if the AER had considered this evidence warranted a higher MRP, it would be necessary to consequentially consider whether any adjustment to the equity beta was warranted.

The AER further notes that is has not changed the cost of debt approach in this final decision from that adopted in the draft decision or other recent AER decisions. While the AER has previously raised concerns that the Bloomberg BBB fair value curve may have overcompensated regulated businesses for the true benchmark cost of debt. This reflects the Tribunal's statement that if the AER were to decide that the extrapolated Bloomberg fair value curve was an unreliable indicator for the purposes of deciding that DRP, it would be desirable in the longer term to develop an alternative coherent and consistent methodology, in consultation with the relevant regulated businesses and other interested parties.[363]

5.3 Reasons for final decision

In the previous section, the AER set out its approach to determining the rate of return. This included the AER's interpretation of the relevant criteria from the NGL and NGR.

In this section the AER applies its approach, and explains why the rate it determines for SP AusNet's access arrangement period is consistent with the NGL and NGR criteria. In this section, the AER:

- firstly, explains why it adopts the CAPM as the well accepted financial model to determine the cost of equity
- secondly, explains how it determines each of the parameters within the CAPM, with a particular focus on the determination of the risk free rate and MRP.
- then explains how it estimates the DRP and gearing ratio for SP AusNet
- also outlines its reasons for its position on forecast inflation
- finally, considers the outcome from the above approach against reasonableness checks on the overall rate of return.

5.3.1 The Capital Asset Pricing Model (CAPM)

The cost of equity is not directly observable and therefore a model is required in order to estimate it. SP AusNet itself acknowledged this and stated:[364]

> SP AusNet recognises that any estimate of the cost of equity is open to criticism because estimating an unobservable parameter – such as the cost of equity – is bound to be imperfect. The task, therefore, is to make a reasonable judgment based on the available evidence.

This position is similarly noted by Wright[365] and Ernst and Young. Ernst and Young noted:[366]

> The cost of equity is not directly observable, so it must be estimated or inferred from market data. Finance theory usually guides the process of estimation and the CAPM is often applied in this process.

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363 Australian Competition Tribunal, *Application by Envestra Ltd (No 2) [2012] ACompT 3*, 11 January 2012, paragraph 95. In relation to change of the cost of debt approach, the Tribunal noted: "In the longer term, as the Tribunal has said, it is open to the AER to adopt a different methodology. Consideration of the proper composition of the comparison sample of bonds, the methodology for deciding on the appropriate sample of bonds and the relevance of these bonds to its task should be undertaken by the AER in consultation with interested parties across the spectrum of entities in the industries it regulates, consumers of their services and other interested parties." See: Australian Competition Tribunal, *Application by Envestra Limited (No 2) [2012] ACompT 3*, 11 January 2012, paragraph 118

364 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, p.24.

365 S. Wright, *Review of risk free rate and cost of equity estimates: A comparison of UK approaches with the AER*, 25 October 2012, p.2.

366 Ernst & Young, *Market evidence on the cost of equity: Victorian gas access arrangement review 2013-2017*, 8 November 2012, p. 7

A financial model must be a well accepted model to be used for determining a return on capital. The Sharpe Lintner CAPM is a well accepted financial model. As noted by the AER during the WACC review, the Sharpe Lintner CAPM has been consistently adopted by regulators and market practitioners. The AER is not aware of any instances where an Australian regulator has adopted an alternative model. Truong, Partington and Peat found that 72 per cent of Australian businesses who responded to their survey adopt the (Sharpe) CAPM in formulating their capital budgeting decisions.[367]

The AER and the Tribunal agree that the Sharpe Lintner CAPM is a well accepted financial model and is appropriate to use in order to estimate the cost of equity. Implicitly, SP AusNet must also consider that the Sharpe Lintner CAPM is a well accepted financial model because it proposed the model, and a requirement of the NGR is that a well accepted financial model must be used.[368] The AER therefore estimates the cost of equity by combining the best estimate of each parameter that is required within the CAPM. The AER determines the cost of equity (r_e) using the CAPM formula:[369]

$$r_e = r_f + \beta_e \times MRP$$

where the AER and SP AusNet agree the equity beta estimate (β_e) is 0.8.[370]

5.3.2 Risk free rate

The AER agrees with SP AusNet's proposed method for estimating the risk free rate component of the cost of debt.[371] The AER does not agree with SP AusNet's proposed method for estimating the risk free rate component for the cost of equity.[372] On both matters, the AER's position is consistent with its position in the draft decision.

The AER's risk free rate method is also consistent for both the cost of debt and the cost of equity.

Conceptually, this method adopts a 10 year forward looking risk free rate, commensurate with prevailing conditions in the market for funds at the commencement of the access arrangement period. Practically, this method adopts the 10 year CGS yield averaged over a short and recent period (chosen by SP AusNet), as close as practicably possible to the date of the final decision.

The AER considers this method reflects prevailing conditions in the market for funds and the risks involved in providing reference services.

The AER's reasons for adopting this method are summarised in section 5.1.2. In this section, the AER explains those reasons. Further considerations on the risk free rate are discussed in appendix B.

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367 AER, *Final decision: Electricity transmission and distribution network service providers: Review of the weighted average cost of capital (WACC) parameters*, 1 May 2009, p. 335.

368 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, p.6.

369 The CAPM formula is further considered in appendix section B.3.1.

370 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, p.8.

371 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, pp. 45-46.

372 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, pp. 46.

CGS are the best proxy for the risk free rate in Australia

The risk free rate measures the return an investor would expect from an asset with no default risk. CGS are low default risk securities issued by the Australian Government, and are therefore an appropriate proxy for the risk free rate.[373] Each of the three major credit rating agencies issued its highest possible rating to the Australian Government.[374]

Experts generally acknowledge that an observable proxy for the risk free rate is available in Australia.[375] The AER received advice from the RBA, Australian Treasury and AOFM in July 2012 that supported the use of CGS yields as a proxy for the risk free rate in Australia.[376] In the RBA letter, Guy Debelle stated:

> I therefore remain of the view that CGS yields are the most appropriate measure of a risk free rate in Australia.[377]

Similarly, the Treasury and AOFM stated:

> The nominal CGS market is liquid and continues to display the attributes of a well-functioning market.[378]

While there is no explicit statement to this effect, SP AusNet appears to agree with this conclusion because it proposed prevailing CGS yields for the risk free rate component of its proposed cost of debt.[379] Furthermore, the two approaches SP AusNet suggests are acceptable for the risk free rate component of the cost of equity both adopt CGS yields for the risk free rate, albeit over different averaging periods.[380]

Furthermore, in advice to SP AusNet, CEG makes the following statement:

> The AER goes on to address the issues that I raised and, in each case, the AER concludes that CGS is nonetheless the best proxy for the risk free rate. However, I did not argue otherwise...The argument that I did put related to the need for internal consistency between the risk free rate and MRP in the CAPM.[381]

This statement indicates that CEG agrees CGS yields are an appropriate proxy for the risk free in Australia. The AER addresses CEG's argument on internal consistency in appendix B.2.1.

Appropriate averaging period

The AER considers the best method for determining an appropriate risk free rate is to use a short and recent averaging period as close as practicably possible to the commencement of the access arrangement period. The AER's explains its reasons for this position in the following sections.

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373 Gregory also identifies the absence of re-investment risk and inflation risk and characteristics of a risk free rate. Gregory, *The risk free rate and the present value principle*, November 2012, p.5. Lally discusses these risks in his report. Lally, *The present value principle*, March 2013, p. 10-12.

374 Standard and Poor's, viewed 5 March 2013, http://www.standardandpoors.com/prot/ratings/entity-ratings/en/us/?entityID=268976&sectorCode=SOV ; Moody's, viewed 5 March 2013, http://www.moodys.com/credit-ratings/Australia-Government-of-credit-rating-75300; Fitch Ratings, viewed 5 March 2013 http://www.fitchratings.com/gws/en/esp/issr/80442187

375 See, for example, Lally, *The present value principle*, March 2013, p. 13, and Wright, *Review of risk free rate and Cost of equity estimates: A comparison of UK approaches with the AER*, October 2012, p. 3.

376 RBA, *Letter regarding the CGS market*, July 2012; Treasury and AOFM, *Letter regarding the CGS Market*, July 2012.

377 RBA, *Letter regarding the CGS market*, July 2012, p. 1.

378 Treasury and AOFM, *Letter regarding the CGS Market*, July 2012, p. 2.

379 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, pp. 45-46.

380 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, pp. 2, 9 & 46.

381 CEG, *Response to the AER Vic gas draft decisions: Internal consistency of MRP and risk free rate*, November 2012, p. 14. (CEG, *Response to the AER Vic gas draft decisions*, November 2012).

Prevailing CGS yields are consistent with the CAPM

For the following reasons, using a CGS yield estimated as close as practical to the commencement of the access arrangement period is consistent with the CAPM. Inputs to a model must be appropriate for use in that model, so individual equity parameters in this decision must be consistent with the CAPM framework.

The CAPM uses the most current information to derive the rate of return. In theory, it would use the risk free rate on the day (in this case, the commencement of the access arrangement period), as recognised by the Federal Court in *ActewAGL Distribution v The Australian Energy Regulator* [2011] FCA 639 (the ActewAGL matter).[382]

During the ActewAGL matter, Associate Professor Lally for the AER and Greg Houston for ActewAGL agreed theory requires the risk free rate be an "on the day" rate.[383] The Federal Court acknowledged this agreement:

> There was no dispute between the experts that the CAPM theory suggests that, ideally, the nominal risk-free rate input will be calculated on the day of the final determination.[384]

Associate Professor Lally advised:

> In relation to the Sharpe-Lintner model, this model always requires a risk free rate prevailing at a point in time for some subsequent period rather than a historical average and application of the model to a regulatory situation would require the risk free rate prevailing at the beginning of a regulatory period.[385]

A prevailing risk free rate is consistent with the building block model and present value principle

For the risk free rate, an averaging period that is as close as practical to the commencement of the access arrangement period promotes consistency with the building block model and the present value principle.

Lally defines the present value principle in this manner:

> The Present Value principle states that the present value of a regulated firm's revenue stream should match the present value of its expenditure stream plus or minus any efficiency incentive rewards or penalties.[386]

The NGR prescribe the use of the building block model when the AER is calculating the total revenue allowance.[387] An important principle of the building block model is the present value principle.[388] Indeed, Lally states:

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382 Federal Court of Australia, *ActewAGL Distribution v The Australian Energy Regulator [2011] FCA 639*, 8 June, 2011, paragraph 119.

383 In advice provided to SP AusNet by NERA, Greg Houston raised concerns with the AER's presentation of his advice to the Federal Court. NERA, *Estimating the cost of equity under the CAPM: Expert report of Gregory Houston*, November 2012, pp. 36-37. In response, the AER has amended its discussion of Mr Houston's advice to the Federal Court.

384 Federal Court of Australia, *ActewAGL Distribution v The Australian Energy Regulator [2011] FCA 639*, 8 June 2011, paragraph 119.

385 Lally, *Risk free rate and present value*, August 2012, p. 3.

386 M. Lally, *The present value principle: risk, inflation and interpretation*, March 2013, p. 5 (Lally, *The present value principle*, March 2013)

387 NGR r. 76

388 Biggar, D., *Public utility regulation in Australia: Where have we got to? Where should we be going, Working paper no. 4, ACCC/AER working paper series*, July 2011, p. 58. A similar description of the building block model supported by more detailed analysis can be found in Biggar, D., *Incentive regulation and the building block model*, 28 May 2004, pp. 2-21, accessed on 27 August 2012, <http://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=ACE2004&paper_id=133>

> In relation to the Building Block model, this is a consequence of the Present Value principle and therefore the same conclusion applies.[389]

Further, as Lally explains:

> The Present Value principle is fundamental to regulation; lower revenues then those that satisfy this principle will fail to entice producers to invest and higher revenues constitute the very excess profit that regulation seeks to prevent (Marshal et al, 1981).[390]

As Lally explains, this principle requires the risk free rate (and MRP) to be estimated at the commencement of the access arrangement period.[391]

The averaging period should be short

A short averaging period provides a reasonable estimate of the prevailing rate while not exposing service providers to unnecessary volatility. It is a pragmatic alternative to using a risk free rate that precisely satisfies the present value principle.

The rate of return must be estimated in a manner consistent with not only that principle, but also the building block model and the CAPM. In advice received prior to the draft decision, Lally stated that all three require a risk free rate estimated at the commencement of the access arrangement period[392]—literally, the first market price on the first day of the access arrangement period.[393] However, Lally explained:

> ... the use of this transaction would expose the regulatory process to reporting errors, an aberration arising from an unusually large or small transaction, and a rate arising from a transaction undertaken by a regulated firm for the purpose of influencing the regulatory decision.[394]

A short averaging period (between 10 and 40 business days) as close as practically possible to the commencement of the access arrangement period provides a pragmatic alternative—violating the present value principle only to the minimum extent necessary. Lally states:

> The use of the CAPM in a regulatory situation requires that the risk free rate and the MRP must be the rates prevailing at the beginning of the regulatory period. However pragmatic considerations suggest that the risk free rate be averaged over a short period close to the beginning of the regulatory period.[395]

On the other hand, Lally noted a long term average would more significantly violate the present value principle without providing any pragmatic gain:

> Rates averaged over a much longer historical period would be inconsistent with the present value principle, i.e., they would violate it without offering any incremental pragmatic justification.[396]

Subsequent advice provided by Lally did not change this conclusion. The presence of risky assets does not justify the use of a long-term averaging period.[397]

The AER does not consider a long-term averaging period is an appropriate and reasonable departure from the present value principle. Therefore, the AER does not accept SP AusNet's proposed historical averaging period for the cost of equity.

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389 Lally, *Risk free rate and present value*, August 2012, p. 3.
390 Lally, *Risk free rate and present value*, August 2012, p. 6.
391 Lally, *The present value principle*, March 2013, p. 6.
392 Lally, *Risk free rate and present value*, August 2012, p. 3
393 Lally, *Risk free rate and present value*, August 2012, p. 7
394 Lally, *Risk free rate and present value*, August 2012, p. 7
395 Lally, *The present value principle*, March 2013, p. 5.
396 Lally, *Risk free rate and present value*, August 2012, p. 7.
397 Lally, *The present value principle*, March 2013, p. 6

SP AusNet's nominated averaging period for the cost of debt was 12 November 2012 to 7 December 2012. This AER agrees with this averaging period because it is consistent with the AER's considerations in this section. The AER has applied this averaging period for both the cost of equity and the cost of debt. The averaging period is discussed in more detail in appendix B.4.2.

CGS are an observable market determined parameter

CGS yields are observable in a market. As that market is liquid and functioning well,[398] the AER has confidence the market rate reflects the prevailing risk free rate.

Changes in yields for securities traded in a liquid market are likely to reflect the actions of many market participants at each point in time. So, market determined CGS yields are likely to reflect prevailing conditions in the market for funds. On its own, a yield that is low relative to historical averages is not a sign that the yield prevailing at any point in time is no longer a good proxy for the risk free rate. The current CGS yields are likely to reflect strong demand from foreign investors and a general re-assessment of the value of a risk free asset. Lower yields (higher prices) are an expected outcome from increased demand for those assets.

The Treasury and the AOFM noted this point:

> The weak and fragile global economy has put downward pressure on benchmark global long-term bond yields, and is driving investors into high quality government debt.[399]

The prevailing yield is the benchmark that risky investments must better

In previous advice, Professor McKenzie and Associate Professor Partington explained the relationship between the prevailing risk free rate and investment decisions:

> There seems to be an implication in some of the submissions that there is something wrong with using the government bond rate as the risk free rate when government bond rates are low. The fundamental point to be made is that the government bond rate sets the current benchmark that a risky project has to beat. Clearly there is little point in taking on a risky project if you can get the same or higher return by investing in a government bond. The government bond thus sets a benchmark; the time value of money.[400][401]

They also advised:

> At the time of writing investors can invest in a 10 year government bond at yield of 3.84%. So a ten year project that offers say 4.5% is worth considering if the risk is low enough. The fact that government bond yields were higher in the past does not make 4.5% a bad deal, or 3.84% too low a benchmark. We see no reason to switch from using the current 10 year government bond yield as the proxy for the risk free rate.[402]

Since the AER received this advice in February 2012, the 10 year CGS yield has further decreased. The risk free rate from SP AusNet's nominated averaging period is 3.14 per cent. The logic in Professor McKenzie and Associate Professor Partington's advice continues to apply. In prevailing market conditions during SP AusNet's averaging period, 3.14 per cent is the benchmark that a risky project must exceed. The AER estimates an appropriate risk premium above this rate reflecting prevailing conditions in the market for funds and the risks involved in providing reference services. The risk premium is the product of the equity beta and the MRP. The AER considers the appropriate equity beta and MRP in sections 5.3.4 and 5.3.3.

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398 Treasury and AOFM, *Letter regarding the CGS Market*, July 2012, p. 2.
399 Treasury and AOFM, *Letter regarding the CGS Market*, July 2012, p. 1.
400 McKenzie and Partington, *Supplementary report on the MRP*, February 2012, pp. 11–12..
401 The advice was provided for the AER's final determination on Aurora. Many of the contentions made in that process are also being made in this process.
402 McKenzie and Partington, *Supplementary report on the MRP*, February 2012, p. 12.

Prevailing 10 year CGS yield is a forward looking 10 year rate

The prevailing 10 year CGS yield is a forward looking rate. The prevailing 10 year CGS yield varies over time, but this variation does not mean the yield is a 'short term' rate. Rather, according to the expectations theory on the term structure of interest rates, at any point in time the yield on long dated bonds (such as 10 year CGS) incorporates the market's expectation of the yield on shorter dated bonds over the next 10 years. The expectations theory is generally regarded as a partial but not complete explanation of the term structure of interest rates. Other factors are also likely to be relevant.[403]

The method is unbiased

Determining the averaging period in advance helps achieve an unbiased risk free rate.

Regulated businesses have an incentive to seek a WACC that is as high as possible, because it will increase their revenue allowance. If a regulated business can select an averaging period by looking at historical yields, they may introduce an upward bias.[404] They can select a period with the highest yield available. But, when an averaging period is agreed or specified in advance regulatory "gaming" is less likely because the risk free rate is unknown for that future period.

The possibility of upward bias also applies to a long term average. No particular long term averaging period is clearly superior. SP AusNet responded to these concerns by proposing the use of a 10 year averaging period.[405] SP AusNet suggested that there is regulatory precedent from IPART that supports the use of a 10 year averaging period.[406] IPART has indeed taken long term historical averages into account.[407] However, as SFG acknowledges, it has not formally adopted a long term historical estimate in the manner that SP AusNet has proposed.[408] The precedent value of IPART's approach is not as strong as SP AusNet suggests. IPART's approach to setting the WACC is discussed in more detail in appendix B.8.2.

The AER thus maintains its position that a short averaging period, determined in advance, minimises the likelihood of bias.

There is no clear evidence that CGS yields are abnormally low

There are references in SP AusNet's revised proposal, and the consultant reports it submitted, to CGS yields being likely to return to normal. The following statements in SP AusNet's proposal is an example:

> Under conditions of normally functioning capital markets, the AER's standard approach would generally result in reasonable estimates of the cost of equity. However, we cannot rely on normal conditions persisting and, therefore, the AER's standard regulatory approach will only by chance produce an estimate

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403 The 'liquidity premium' theory and the 'preferred habitat' theory identify other important determinants of the term structure of debt. Elton et. al., *Modern Portfolio Theory and Investment Analysis 8th ed.* (2010), pp. 516–-521. These concepts are discussed further in appendix B of the draft decision.

404 Lally, M., *Expert Report of Martin Thomas Lally*, 13 February 2011, pp. 9-10. Lally's comments in this report were made about a specific approach proposed in the relevant determination but are consistent with the approach taken by the AER in this decision.

405 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, p. 43.

406 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, p. 43.

407 IPART, *Review of water prices for Sydney Desalination Plant Pty Limited from 1 July 2012 - Final Report*, December 2011, p. 93.

408 SFG, *The required return on equity: Response to AER Victorian gas draft decisions*, 7 November 2012, p. 60. (SFG, *The required return on equity*, November 2012)

> of the cost of equity that is consistent with clause 87(1) of the NGR. Furthermore, the current market conditions are far from normal.[409]

This position finds support in advice from CEG, who state:

> The effect of this is that the prevailing cost of equity is at least as high as under normal market conditions - notwithstanding that the CGS yields are at historic lows.[410]

This raises the question of what "normal" conditions are and whether CGS yields are "abnormally" low.

The analysis above demonstrates that the CGS market is liquid and functioning well. There is no evidence before the AER to suggest that conditions in the CGS market are abnormal. Conversely, there is no clear understanding of "normal" market conditions. Prices (and yields) in markets move up and down all the time depending on the circumstances, demand and supply conditions, and investor expectations. There is no evidence before the AER to suggest that there is mispricing in the CGS market.

McKenzie and Partington also considered the question of whether CGS yields are abnormally low. They did not find that there was reason to describe current CGS yields as abnormally low. They state:

> The evidence provided by the data suggests that the history of interest rates over the last few decades is not truly representative of the long run in this market. For both the U.S., UK and Australian markets, evidence exists which suggests that bond yields were stable (and possibly even falling) in the long run. The history of data over the last few decades is anomalous and the high interest rates observed during this period are clearly not representative of the longer time series. As such, one conclusion may be that the current environment is nothing more than a return to the 'normal' long run interest rate regime. On the other hand, it could be argued that there is a new normal and the GFC represents a true regime shirt for global financial markets. It is difficult to determine whether this is the case or not - only in the fullness of time will we be able to comment on this with any certainty.[411]

Their report also presents the following figure from Brailsford et al (2012).[412]

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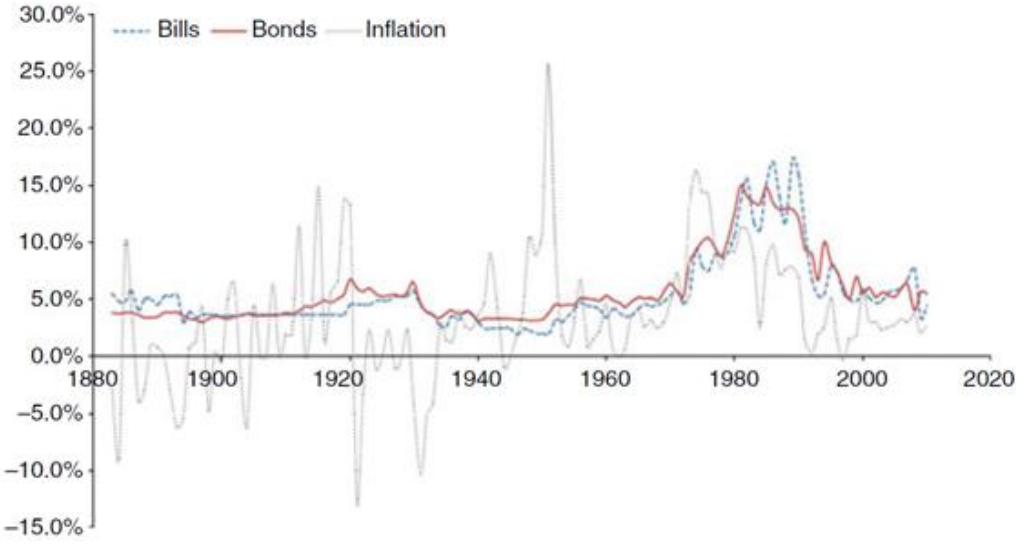
409 SP AusNet, *Revised Access Arrangement Proposal: Chapter 5 – Rate of return and corporate tax allowance*, 9 November 2012, p. 20.

410 CEG, *Update to March 2012 Report: on consistency of the risk free rate and MRP in the CAPM*, November 2012, p. 32. (CEG, *Update to March 2012 Report*, November 2012)

411 McKenzie and Partington, *Review of the AER's overall approach*, February 2013, p. 5.

412 McKenzie and Partington, *Review of the AER's overall approach*, February 2013, p. 13.

Figure 5.2 Bond yields, bill yields and inflation rates over time



The figure shows:

- Yields in the 1970s and 1980 were high by comparison with historical rates.
- Yields have remained elevated (depressed) for long periods before falling (increasing).

As part of its considerations on the cost of equity, the AER has considered evidence on the stability of the cost of equity and the relationship between the risk free rate and MRP. This issues are furthered considered in appendix sections B.2.1, B.2.2 and B.2.3.

5.3.3 Market risk premium

The AER agrees with SP AusNet's proposed MRP of 6 per cent.

In the draft decision, the AER also agreed with SP AusNet's proposal for a 6 per cent MRP. However, the AER noted SP AusNet's proposed 6 per cent MRP was proposed in connection with a long term historical average risk free rate. SP AusNet maintained this position in the revised proposal. It submitted its proposed approach, which adopts long term averages for both the risk free rate and MRP, is one of the two legitimate options to estimate the cost of equity by applying the CAPM. While proposing a 'long term average' MRP of 6 per cent, SP AusNet also suggested it would accept a higher 'spot' MRP if the AER decided to address its arguments through the application of 'spot estimates'.[413]

It is well recognised that the MRP cannot be directly observed. Unlike the risk free rate, the evidence available for estimating the MRP is imprecise and subject to varied interpretation. There is no consensus among experts on which method produces the best MRP estimate. In addition, different methods can produce widely different results at the same point in time.[414] For these reasons, the AER considers that it is reasonable to assess a range of evidence to inform the best estimate of the MRP. In this assessment the AER must apply its judgment to interpret the information before it.

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413 SP AusNet, *RAAP Chapter 5*, 9 November 2012, p.9.

414 See: Damodaran, *Equity risk premiums: determinants, estimation and implications - the 2012 edition*, March 2012, p. 93. He also noted: "No matter what the premium used by an analyst, whether it be 3% or 12%, there is back-up evidence offered that the premium is appropriate."

The AER considers a 6 per cent MRP reflects prevailing conditions in the market for funds and the risks involved in providing reference services.

The AER's reasons for adopting this value are summarised in section 5.1.2. In this section, the AER explains those reasons. Further considerations on the MRP are discussed in appendix B.

Historical excess returns

Long run historical average excess returns support a 10 year forward looking MRP of 6 per cent as reasonable.

Historical excess returns estimate the realised return that stocks have earned in excess of the 10 year government bond rate. They can be directly measured. Although not strictly forward looking, historical excess returns have been used to estimate a forward looking MRP on the view that investors base their forward looking expectations on past experience. The Tribunal recognised this view in the DBNGP matter.[415] In a regulatory context, the use of historical excess returns has advantages, as supported by McKenzie and Partington:

- The estimation methods and the results are transparent.
- The estimation methods have been extensively studied and the results are well understood.
- Historical estimates are widely used and have support as the benchmark method for estimating the MRP in Australia.[416]

Dimson, Marsh and Staunton (2012) indicate there is no better forecast of expected excess returns than the historical average:[417]

> In summary, there are good reasons to expect the equity premium to vary over time. Market volatility clearly fluctuates, and investors' risk aversion also varies over time. However, these effects are likely to be brief. Sharply lower (or higher) stock prices may have an impact on immediate returns, but the effect on long-term performance will be diluted. Moreover volatility does not usually stay at abnormally high levels for long, and investor sentiment is also mean reverting. For practical purposes, we conclude that for forecasting the long run equity premium, it is hard to improve on extrapolation from the longest history that is available at the time the forecast is being made.

This conclusion is informed by their assessment of the current state of research on the MRP, which they summarize as follows:[418]

> Mean reversion would imply that the equity premium is to some extent predictable…Yet despite extensive research, this debate is far from settled. In a special issue of the Review of Financial Studies, leading scholars expressed opposing views, with Cochrane (2008) and Campbell and Thompson (2008) arguing for predictability, whereas Goyal and Welch (2008) find that 'these models would not have helped an investor with access only to available information to profitably time the market'.

The long term averages of historical excess returns, adjusted to incorporate an imputation credit utilisation rate (theta) of 0.35[419], produce a range of 4.9–6.1 per cent (based on arithmetic averages) and 3.0–4.7 per cent (based on geometric averages) over the periods 1883–2011, 1937–2011, 1958–

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415 Australian Competition Tribunal, *Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14,* 26 July 2012, paragraph 153.

416 M. McKenzie, and G. Partington, *Report to Corrs Chambers Westgarth: Equity market risk premium*, 21 December 2011, pp. 5–6, (McKenzie and Partington, *Equity market risk premium*, December 2011)

417 Dimson, Marsh and Staunton, *Credit Suisse Global Investment Returns Sourcebook 2012*, February 2012, p.37.

418 Dimson, Marsh and Staunton, *Credit Suisse Global Investment Returns Sourcebook 2012*, February 2012, p.36.

419 The 0.35 value for theta is consistent with the Australian Competition Tribunal's position in *Application by Energex Limited (Gamma) (No 5) [2011] ACompT9*, November 2009.

2011, 1980–2011 and 1988–2011 (Table 5.2). The starting point for each of the five estimation periods was chosen because the quality of the underlying data sources changed (in 1883, 1937, 1958 and 1980) and the imputation tax system was introduced (in 1988).[420]

Table 5.2 Historical excess return estimates—assuming a use rate of distributed imputation credits of 0.35 (per cent)

Sampling period	Arithmetic mean	Geometric mean
1883–2011	6.1[a]	4.7
1937–2011	5.7[a]	3.7
1958–2011	6.1[a]	3.5
1980–2011	5.7	3.1
1988–2011	4.9	3.0

[a] Indicates estimates are statistically significant at the 5 per cent level using a two tailed test.
Source: Handley.[421]

The AER considers the strengths and weaknesses of each sampling period, which are:

- Longer time series contain a greater number of observations, so produce a more statistically precise estimate.
- Significant increases in the quality of the data becoming available in 1937, 1958 and 1980.
- More recent sampling periods more closely accord with the current financial environment, particularly since financial deregulation (1980) and the introduction of the imputation credit taxation system (1988).[422]
- Shorter time series are more vulnerable to influence by the current stage of the business cycle or other (one-off) events. [423]

The AER considers that there is no one sampling period that is to be preferred, since each period has a number of strengths but at least one weakness. For this reason, the AER considers that all five sampling periods are relevant.

Arithmetic and geometric means

The AER considers the arithmetic average of 10 year historical excess returns would likely be an unbiased estimator of a forward looking 10 year return. However, historical excess returns are estimated as the arithmetic or geometric average of one year returns. If the one year historical excess

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420 Brailsford, Handley and Maheswaran, *Re-examination of the historical equity risk premium in Australia,* Accounting and Finance, vol. 48, 2008, pp. 85-86.

421 Handley, *An estimate of the historical equity risk premium for the period 1883 to 2011*, April 2012, p. 6.

422 In a report submitted on Aurora's revised proposal, NERA raised the issue that the market excess returns were less volatile before the 1950s. See: NERA, *Market risk premium*, 20 February 2012, pp. 13–20. The lack of a well developed theory behind what drives the MRP makes the AER cautious of excluding large periods of data because it does not represent a forward looking MRP. Also, other evidence suggests the historical excess returns were too high before the 1950s. See: AER, *APTPPL access arrangement draft decision*, April 2012, pp. 296297–7.
Further, the arithmetic averages of historical excess returns over 1883–2011 and 1958–2011 both produce a historical MRP of 6.1 per cent. The geometric averages are 4.7 and 3.0 respectively. Accordingly, even if the AER were to rely on only the post 1958 data, it would not change its position on the appropriate value of the MRP.

423 AER, *Final decision—WACC review,* May 2009, pp. 200, 204; Brailsford, Handley and Maheswaran, *Re-examination of the historical equity risk premium in Australia, Accounting and Finance*, 2008, vol. 48, pp. 78–82. (AER, *WACC review final decision*, May 2009)

returns are variable, which they are, then their arithmetic average will overstate the arithmetic average of 10 year historical excess returns. Similarly, the geometric average of one year historical excess returns will understate the arithmetic average of 10 year historical excess returns.[424]

The AER considers both the arithmetic and geometric averages are relevant to consider when estimating a 10 year forward looking MRP using historical annual excess returns.[425] In the Envestra matter, the Tribunal found no error with this approach.[426] The best estimate of historical excess returns over a 10 year period is therefore likely to be somewhere between the geometric average and the arithmetic average of annual excess returns. Also SP AusNet's consultant, Wright, considers both arithmetic averages and geometric averages of historical data when estimating the MRP.[427]

Bias in historical excess returns

In using historical excess returns as a source of evidence on the forward looking MRP, it is important to consider whether historical estimates are likely to under or overstate a forward looking MRP. As various experts have noted, historical excess returns may be subject to certain biases, including:

- survivorship bias (McKenzie and Partington; Damodoran)[428]
- unanticipated inflation, historically high transaction costs and a historical lack of low cost opportunities for diversification (Siegel)
- bias due to the inclusion of historical data which contains periods of major recessions (Lally)[429]

McKenzie and Partington suggested MRP estimates based on historical data may be overstated relative to true expectations, as a result of survivorship bias.[430] According to Damodoran (2011), survivorship bias is created by estimating historical returns on only stocks that have survived.[431] Historical data excludes negative return stocks that no longer exist, which naturally results in higher return estimates. McKenzie and Partington[432] and Joye[433] supported this view. This upward bias is a relevant consideration because the various Australian stock indexes exclude the failed stocks.[434]

Other arguments also suggest the historical excess returns are upwardly biased. Siegel (1999) considered unanticipated inflation means historical returns underestimate real returns on risk free assets.[435] He also submitted historical returns on equity overstate returns actually realised, given historically high transaction costs and the historical lack of low cost opportunities for diversification.[436]

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424 This matter is explained in detail in appendix section B.2.1 of the draft decision.
425 The AER also discusses the comments on the use of geometric averages by SFG, NERA and Lally in appendix section B.5.1.
426 Australian Competition Tribunal, *Application by Envestra Ltd (No 2) [2012] ACompT4*, 11 January 2012, paragraph 157.
427 Wright, *Review of risk free rate and cost of equity estimates*, October 2012, p.20
428 Damodoran, A. *Equity risk premiums: determinants, estimation and implications—the 2012 edition*, Mach 2012, p. 24.
429 M. Lally, *The cost of equity and the market risk premium*, 25 July 2012, p. 24 (Lally, *Cost of equity and the MRP*, July 2012).
430 McKenzie, M. and G. Partington, *Equity market risk premium*, 21 December 2011, pp. 6–7.
431 Damodoran, A. *Equity risk premiums: determinants, estimation and implications—the 2012 edition,* Mach 2012, p. 24.
432 M. McKenzie, and G. Partington, *Report to the AER: Review of regime switching framework and critique of survey evidence,* 27 August 2012, p. 19, (McKenzie and Partington, *MRP: regime switching framework and survey evidence*, August 2012)
433 Joye, C., *Super funds miss mark in bias to equities,* Australian Financial Review, 14 August 2012.
434 For example, the ASX All Ordinaries Index represents the 500 largest companies listed on the ASX. Market capitalisation is the only eligibility requirement. An underperforming stock that is losing its market share would be eventually be removed from the index. See: http://www.asx.com.au/products/capitalisation-indices.htm#all_ordinaries_index.
435 Lally, *Cost of equity and the MRP*, July 2012, p. 8, (Lally, *Cost of equity and the MRP*, July 2012).
436 McKenzie and Partington, *Equity market risk premium*, December 2011, p. 7

To address the overestimating problem noted by Siegel, Lally suggested one could estimate the MRP by adding back the historical average real risk free rate to the conventional MRP estimate and then deducting an improved estimate of the long-term expected real risk free rate. The modified MRP estimate is 4.9 per cent. Lally noted results from this methodology have been used by both the QCA and the New Zealand Commerce Commission in reaching their conclusions on the MRP.[437]

McKenzie and Partington noted SP AusNet's consultant Gregory makes a similar argument to Siegel in support of his view that the regulatory rate of return in the UK has been too high. He submits that a comparison of realised bond returns unprotected from inflation with realised equity returns that have some protection from inflation is likely to overstate the MRP.[438]

Lally also suggested historical excess returns may underestimate the forward looking 10 year MRP when an economy has entered a major recession. But he noted Australia has not recently entered a major recession and, even if it had, the downward bias is unlikely to be very large.[439] He also noted:

> ... the fact that the AER bases its estimate of the MRP at least partly upon historical averaging of excess returns does not invalidate its claim that it is estimating the MRP for the next ten years; this estimation methodology is suitable (in conjunction with other methodologies) for estimating the MRP for the next ten years as well as for estimating the long-term average MRP. The use of historical averaging results may introduce a downward bias at the present time, but the effect is likely to be small relative to the standard deviation in the estimate and to possible upward bias in the methodology arising from significant unanticipated inflation in the 20th century.[440]

The AER considers the bias is a relevant consideration when estimating the MRP using historical excess returns. Since it is not clear what the precise magnitude of the bias is, McKenzie and Partington do not recommend adjusting the historical estimate of the MRP. Given that 6 per cent is towards the top of the range of average historical excess returns, the AER considers 6 per cent is a reasonable estimate, and unlikely to underestimate a forward looking MRP.

Forward looking predictors of excess returns

SP AusNet has submitted consultant reports in support of using dividend yields, dividend yield based DGM estimates and credit spreads to forecast the MRP. In past regulatory decisions, service providers have also proposed other methods to estimate MRP, such as implied volatility. Over the past decade, there is considerable scepticism about evidence for a relationship between observable variables and the MRP. A few studies indicated there is no better forecast of excess returns than the historical average.[441]

For example, Goyal and Welch examine the performance of variables that academic literature suggested as good predictors of the equity premium. These variables include dividend yield, earnings price ratio, corporate bond returns and volatility. Goyal and Welch find that, of the variables that have been proposed to predict excess returns, many produced poor in-sample forecasts. Moreover, they find most variables that performed well in-sample performed poorly out-of-sample.

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437 Lally, *Review of the AER's methodology*, March 2013, p.29.
438 McKenzie and Partington, *Review of the AER's overall approach*, February 2013, pp. 18.
439 Lally, *Cost of equity and the MRP*, July 2012, p. 24.
440 Lally, *Cost of equity and the MRP*, July 2012, p. 27.
441 Boudoukh, Richardson and Whitelaw, *Myth of long-horizon predictability,* Review of financial studies, July 2008, vol. 21, no. 4, pp. 1577–605; Timmermann, *Elusive return predictability,* International journal of forecasting, January – March 2008, vol. 24, no. 1, pp. 1–18; Goyal and Welch, *A comprehensive look at the empirical performance of equity premium,* Review of financial studies v, 2008, vol. 21 n, no. 4, pp. 1455–508.

Goyal and Welch distinguish between in-sample and out-of-sample performance of forecasting models. To understand this distinction, it may be helpful to consider the following passage in Brooks (2008), which insists on the importance of out-of-sample forecast performance:[442]

> In-sample forecasts are those generated for the same set of data that was used to estimate the model's parameters. One would expect the 'forecasts' of a model to be relatively good in-sample, for this reason. Therefore a sensible approach to model evaluation through an examination of forecast accuracy is not to use all of the observations in estimating the model parameters, but rather to hold some of the observations back. The latter sample, sometimes known as the holdout sample, would be used to construct out-of-sample forecasts.

The conclusion of Goyal and Welch is stated below: [443]

> Most models are no longer significant even in sample (IS), and the few models that still are usually fail simple regression diagnostics…Most models have poor out-of-sample (OOS) performance, but not in a way that merely suggests lower power than IS tests. They predict poorly late in the sample, not early in the sample…Therefore, although it is possible to search for, to occasionally stumble upon, and then to defend some seemingly statistically significant models, we interpret our results to suggest that a healthy scepticism is appropriate when it comes to predicting the equity premium, at least as of early 2006. The models do not seem robust.
>
> ...
>
> OOS, most models not only fail to beat the unconditional benchmark[444] (the prevailing mean) in a statistically or economically significant manner, but underperform it outright.

Forward looking measures

There is growing scepticism in the academic literature of forward looking measures of the MRP. However, in this section the AER considers two forward looking MRP measures that are frequently suggested by service providers. Those are:

- DGM estimates—these estimates are advocated by SP AusNet and its consultant in the initial proposal and the revised proposal. CEG, Capital Research, NERA and Lally all recommended placing at least some weight on DGM estimates for estimating a forwarding looking MRP. The AER considers that DGM based analysis can provide information on the expected MRP, however, this approach is also subject to a number of limitations.
- Implied volatility glide path—the AER notes this technique was not proposed by SP AusNet in this review. However, this approach, as suggested by Value Adviser Associates (VAA) in its 2010 report, is the only other forward looking approach that produces an MRP estimate. Therefore the AER gives consideration to this method in both the draft decision and this final decision.

These two forward looking MRP measures give mixed results. DGM estimates can give some insight into the prevailing MRP estimate, although it is subject to a number of limitations. Associate Professor Lally found the current DGM MRP estimates are in the range of 5.9–8.4 per cent after correcting for deficiencies in CEG's method. The other forward looking MRP measure—implied volatility glide path indicates the MRP estimate is currently below its historical average level (and therefore below 6 per cent).

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442 Brooks, C, *Introductory Econometrics for Finance*, 2nd ed. Cambridge, Cambridge University Press, 2008, p.245

443 Goyal and Welch, *A comprehensive look at the empirical performance of equity premium,* Review of financial studies v, 2008, vol. 21 n, no. 4, p. 1456 & p. 1504.

444 Unconditional benchmark refers to average historical excess returns in Goyal and Welch.

DGM estimates

DGM analysis can provide some information on the expected MRP. The DGM method examines the forecast future dividends of businesses and derives the cost of equity that makes these dividends consistent with the market valuation of the equity of those businesses.

However, DGM based estimates of the return on equity and implied MRP estimates are highly sensitive to the assumptions made. It is necessary that all assumptions made have a sound basis, otherwise estimated results from DGM analysis may be inaccurate and lead analysts into error.[445] This view is also supported by McKenzie and Partington:

> Clearly valuation model estimates are sensitive to the assumed growth rate and a major challenge with valuation models is determining the long run expected growth rate. There is no consensus on this rate and all sorts of assumptions are used: the growth rate in GDP; the inflation rate; the interest rate; and so on. A potential error in forming long run growth estimates is to forget that this growth in part comes about because of injections of new equity capital by shareholders. Without allowing for this injection of capital, growth rates will be overstated and in the Gordon model this leads to an overestimate of the MRP.[446]

Consistent with its position in the WACC review and previous decisions, the AER considers:

- The implied MRP produced by DGM estimates is sensitive to both the model specification and the choice of inputs
- No input assumptions are reliable. Generally, the expected market growth rate in dividends per share (a key input) is proxied with analysts' short term forecasts of market wide earnings per share growth, or long term expectations of GDP growth (or both). Associate Professor Lally advised such proxies are likely to produce an upward bias in the MRP estimates.[447]
- Regulators had previously been wary to lower the MRP when DGM estimates were below 6 per cent.[448] The AER is similarly wary to increase the MRP (based on DGM estimates) even though the DGM estimates can produce estimates above 6 per cent.
- At the WACC review, academics (Officer and Bishop, and CEG) and industry representatives (including the ENA who represents the Victorian gas businesses) considered DGM estimates should be used only as a 'cross check' on the reasonableness of other methods to estimate the MRP, rather than as the primary method.[449] In contrast, in this review the regulated businesses and CEG consider substantial weight should be placed on DGM estimates. The reasons for this change in position have not been explained.
- Although DGM is extensively used by US economic regulators in estimating the return on equity[450], it is not well accepted for use in the Australian context.[451]

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445 For example corporate finance texts have noted "The simple constant-growth DCF [discounted cash flows] formula is an extremely useful rule of thumb" but "Naive trust in the formula has led many financial analysts to silly conclusions." Brealey, Myers and Allen, *Principles of Corporate Finance: International Edition,* 9th Edition, Boston: McGraw-Hill, 2008, p. 95.

446 McKenzie and Partington, *Equity market risk premium*, December 2011, p. 25.

447 Lally, *Cost of equity and the MRP*, July 2012, pp. 11–18.

448 AER, *WACC review final decision*, May 2009, p. 220.

449 AER, *WACC review final decision*, May 2009, pp. 218–219.

450 CEG, Risk free rate and MRP in the CAPM, March 2012, p.38.

451 In most capital markets there are relatively few independent forecasts of future earnings and, consequently, there is a high level of statistical uncertainty surrounding DCF projections of the cost of equity for a particular company. However, in the US there is a very deep market for analysts' projections of company's future earnings. See: NERA, *Review of ESCOSA's decision on ETSA utilities equity beta*, April 2005, p. 23.

The AER notes different consultants produce widely different DGM based MRP estimates over a short period. Table 5.3 below illustrates the consultants' DGM estimates from the last year, which range from 5.90–9.56 per cent. DGM estimates from the most recent reports (CEG and Lally) produce a lower range of 5.90–8.89 per cent. For the reasons explained in appendix B, the AER gives greater consideration to Lally's estimates than CEG's estimates. This is because Lally's DGM method is based on CEG's method, however adjusts for certain deficiencies in CEG's method identified by Lally. Lally's method produces a range of 5.90–8.39 per cent.

Table 5.3 Recent DGM based MRP estimates produced by consultants

		Dividend yield	Dividend per share growth	RFR	MRP estimate
CEG (March 2012)		5.68%	6.60%	3.77%	8.52%
Capital Research (Feb 2012)		4.70%	7.00%	5.08%	6.62%
Capital Research (Feb 2012)		5.23%	7.00%	5.08%	7.15%
Capital Research (Feb 2012)		5.71%	7.00%	5.08%	7.63%
Capital Research (Mar 2012)		6.29%	7.00%	3.73%	9.56%
NERA (Feb 2012)	Bloomberg and IBES forecasts		5.65%	3.96%	7.72–7.75%
NERA (Feb 2012)	Bloomberg and IBES forecasts		5.65%	5.50%	6.18–6.21%
NERA (March 2012)	Bloomberg and IBES forecasts		5.65%	3.99%	7.69–7.72%
CEG (November 2012)		5.34%	6.60%	3.05%	8.89%
Lally (March 2013)		5.34%	a mix of long term and short term dividend growth	3.26%	5.90-8.39%

Sources: CEG, Capital Research, Capital Research, NERA, Lally

DGM analysis is producing relatively high MRP estimates at the moment. However, DGM analysis produced MRP estimates just above 2 per cent in 1994 (CEG's modified approach using indexed CGS rates). It is unlikely this would have been seen then or now as a credible estimate of the MRP in 1994. The AER considers the results from the DGM analysis, while also aware of the limitations to this analysis discussed above. The AER discusses its further considerations on DGM estimates in appendix B.

Implied volatility

VAA estimated the MRP based on an 'implied volatility glide path' approach, the MRP estimate generated from implied volatility will have the same horizon as the underlying options. The implied volatility approach to estimate the MRP is based on an assumption that the MRP is the price of risk times the volume of risk (volatility), which is based on Merton (1980).

The AER has already set out its concerns with using VAA's implied volatility approach and the implied volatility as an indicator for the MRP in the draft decision and its previous decisions[452]. Specifically, the AER considers that the VAA implied volatility approach:

- inappropriately determines the baseline long run average implied volatility by using a different data series—the realised volatility of a 90 day data window for the S&P/ASX 30 from 1980 onwards.[453] Using this (historical) realised volatility series results in a long run average volatility of

[452] AER, *Final decision Envestra Ltd access arrangement proposal for the SA gas network*, June 2011, pp. 195-197.

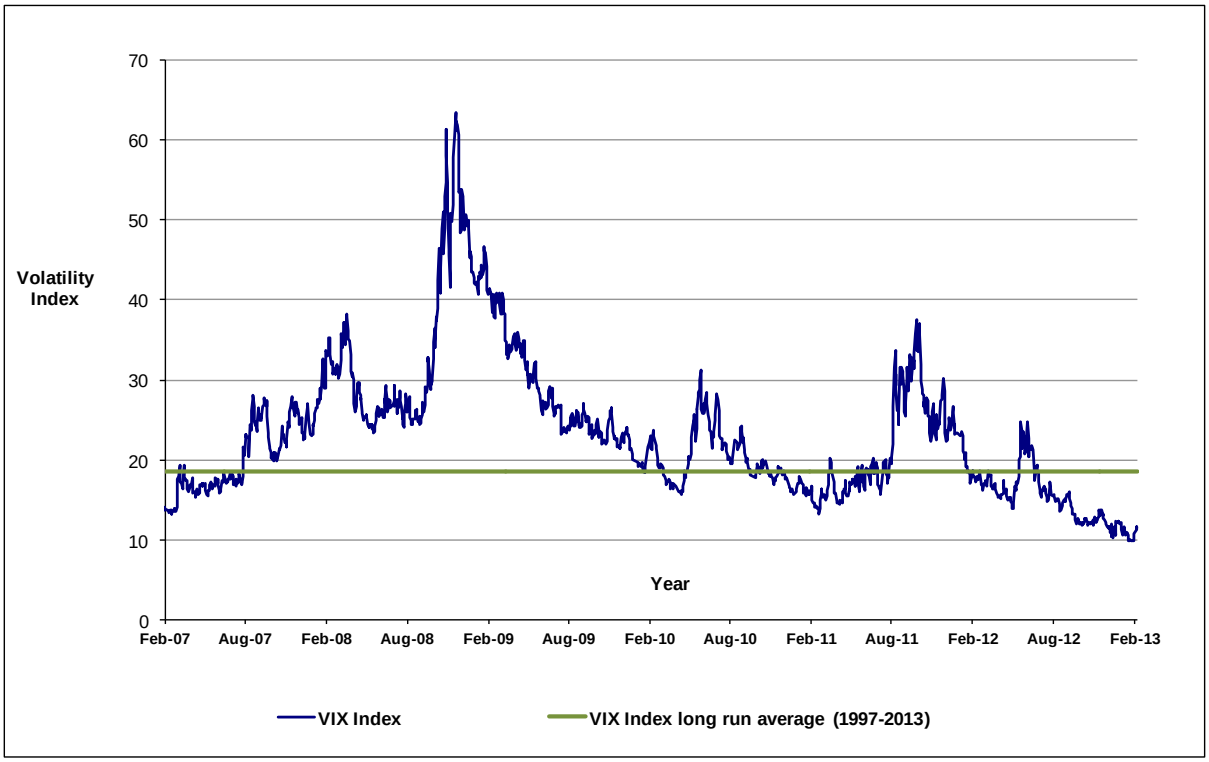
[453] VAA, MRP for *Envestra*, March 2011, p. 4 (footnote 7). Further, VAA appears to end its baseline period in 2009 even when using implied volatility data up to the end of 2010. See Bishop, Fitzsimmons, and Officer (2011), pp. 9, 14 (endnote 5).

14 per cent. The actual long run average of one of the (forward looking) implied volatility series used by VAA (3 month VIX) is 18.6 per cent. Adopting the higher baseline would reduce the MRP estimated using the VAA approach in all scenarios.

- incorrectly calculates the price per unit of implied volatility using a 'long run historical average MRP' of 7 per cent, when the evidence indicates that this value is approximately 6 per cent.[454] Adopting the lower historical average MRP would reduce price per unit of volatility, which in turn reduces the MRP estimated using the VAA approach in all scenarios.

Although implied volatility was high during the height of the GFC, the current level is significantly below the long run average. Using data updated to 7 February 2013[455], the VIX implied volatility measures at 11.4 per cent, significantly below the long run average of 18.6 per cent (measured from the start of the data series in 1997). Figure 5.3 shows the value of this measure of implied volatility relative to its long run average level across the period since the global financial crisis.

Figure 5.3 Implied volatility (VIX) over time



Source: Citibank VIX implied volatility index (3 month put/call options on S&P/ASX 200), sourced via Bloomberg code CITJAVIX.

By directly applying VAA's approach, the current one year MRP is 5.7 per cent—this is derived by applying a constant premium per unit risk to implied volatility of 11.4 per cent for 3 month options on th ASX 200 index.[456] Transitioning to a long term average of 6 per cent, this implied volatility approach produces an MRP below 6 per cent.

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454 The AER sets out earlier in this decision its analysis of the historical excess return series.

455 The AER attempts to update rate of return related data in this final decision to 20 February 2013. This is because 20 February 2013 is the end date of the averaging period of the Victorian gas business (Envestra) whose averaging period ended the latest. However, at the time of finalising this decision VIX data from Bloomberg was only available until 7 February 2013. Therefore the data was updated to 7 February 2013 for this implied volatility analysis.

456 Note the constant premium per unit risk is 0.5, which is consistently used by VAA. Also, VAA uses implied volatility for 1 year options on ASX 200 index, while the AER applied implied volatility for 3 month options on ASX 200 index. However, the AER notes VAA found the 3 month and 12 month option volatilities are highly correlated, the correlation coefficient is

Further, if the VAA approach is corrected for the AER's concerns above, it produces a current one year MRP of 3.7 per cent (based on a revised constant premium per unit risk to implied volatility of 11.4 per cent for 3 month options on ASX 200 index). The revised constant premium per unit risk is 0.32, which is derived by dividing a more realistic long term MRP of 6 per cent by the long run average volatility of 18.6 per cent, measured from the start of the data series in 1997. This converts to a 10 year MRP of 5.54 per cent.[457]

The AER does not consider that VAA's implied volatility glide path approach produces a robust basis on which to place substantive weight in estimating a 10 year forward looking MRP. However, even if weight were to be given to this approach, it would currently support an MRP estimate below 6 per cent. The AER notes that this is a forward looking measure that until recently was strongly advocated by regulated businesses. It is appropriate to consider this measure, among other measures of the MRP, having regard to the strengths and weaknesses of this approach.

As noted above, and further in appendix B, both DGM based and implied volatility based estimates of a forward looking MRP are subject to certain limitations. A further limitation is, in prevailing market conditions, these two approaches produce vastly different results. Implied volatility estimates suggest the 10 year forward looking MRP is around 5.54 per cent. This is somewhat below 6 per cent. DGM estimates suggest the MRP is around 5.90–8.39 per cent (based on Lally's estimates). This ranges from slightly below 6 per cent to materially above 6 per cent. However, taking both measures together, and having regard to the strengths and weaknesses of these methods, the AER considers 6 per cent is a reasonable estimate of the 10 year forward looking MRP.

Survey evidence

The AER attempts to estimate investors' expectations of what the MRP will be in the future and not simply rely on the excess stock market returns that have been achieved in the past. The AER considers surveys of market practitioners and academics are relevant as they reflect the forward looking MRP applied in practice. The AER is aware of the Tribunal comments made in relation to the survey evidence. The AER applies the criteria noted by the Tribunal to the survey evidence it considers in this decision and concludes the survey results are still relevant to inform the forward looking 10-year MRP.[458]

In the draft decision, the AER noted that survey based evidence needed to be treated with caution as the results may be subject to limitations. The relevance of some survey results depend on how clearly the survey sets out the framework for MRP estimation. This includes the term over which the MRP is estimated and the treatment of imputation credits. Survey based estimates may be subjective, because market practitioners may look at a range of different time horizons and they are likely to have differing views on the market risk. This concern may be mitigated as the sample size increases.[459]

0.92. See: VAA, *Market risk premium estimate for January 2010-June 2014 prepared for WestNet Energy*, December 2009, p.13.

457 Converting the one-year implied MRP to a 10 year forward looking MRP requires further assumptions, VAA assumed this one-year implied MRP will fade to a long term historical average MRP over three years. It also noted JCP assumed step reversion after two years. The AER is not entirely clear how VAA faded a one-year implied MRP into a long term average MRP, since VAA report provided no further explanation. The AER estimated a 10- year volatility implied MRP of 5.54% based on JCP assumption—that is assuming the MRP will be 3.7% for the first two years and reverts to a long term average MRP for the next eight years. See: Bishop, Fitzsmmons, Officer, 'Adjusting the market risk premium to reflect the global financial crisis', *The Finsia Journal of Applied Finance*, Issue 1, 2011, p.9 and p. 14. For the long term average MRP the AER has adopted 6 per cent, which reflects long term average historical excess returns.

458 Australian Competition Tribunal, *Application by Envestra Limited (No 2) [2012] ACompT 3*, 11 January 2012, paragraphs 159–163.

459 Australian Competition Tribunal, Application by Envestra Limited (No 2) [2012] ACompT 3, 11 January 2012, paragraphs 159–63.

The AER considered survey evidence on the MRP before and after the WACC review. It includes:

- KPMG (2005) surveyed 33 independent expert reports on takeover valuations from January 2000 to June 2005. It found the MRP adopted in valuation reports was in a 6–8 per cent range. KPMG reported 76 per cent of survey respondents adopted an MRP of 6 per cent.[460]
- Capital Research (2006) found the average MRP adopted across a number of brokers was 5.09 per cent.[461]
- Truong, Partington and Peat (2008) surveyed chief financial officers, directors of finance, corporate finance managers or similar finance positions of 365 companies included in the All Ordinaries Index at August 2004. From the 87 responses received, 38 were relevant to the MRP. They found the MRP adopted by Australian firms in capital budgeting was in a 3–8 per cent range, with an average of 5.94 per cent. The most commonly adopted MRP was 6 per cent.[462]
- Bishop (2009) reviewed valuation reports prepared by 24 professional valuers from January 2003 to June 2008. It found the average MRP adopted was 6.3 per cent, and 75 per cent of these experts adopted an MRP of 6 per cent.[463]
- Fernandez (2009) surveyed university finance and economics professors around the world in the first quarter of 2009. The survey received 23 responses from Australia and found the required MRP used by Australian academics in 2008 was in a 2.0–7.5 per cent range, with an average of 5.9 per cent.[464]
- Fernandez and Del Campo (2010) surveyed analysts around the world in April 2010. The survey received seven responses from Australian analysts and found the MRP that they used in 2010 was in a 4.1–6.0 per cent range, with an average of 5.4 per cent.[465]
- A further survey by Fernandez et al. (2011) in April 2011 reported the MRP used by 40 Australian respondents was in a 5–14 per cent range, with an average of 5.8 per cent.[466]
- Asher (2011) surveyed 2000 members of the Institute of Actuaries of Australia. Asher reported 33 of a total of 58 Australian analysts who responded to the survey expected the 10 year MRP to be 3–6 per cent. The most commonly adopted MRP value was 5 per cent. The report also illustrated that expectations of an MRP much in excess of 5 per cent were extreme.[467]
- A further survey by Asher (2012) in March 2012 reported 49 useful responses, with an average 10 year MRP of 4.6 per and two thirds of the responses falling in the range 4-6%.[468]
- Like KPMG (2005), Ernst Young (2012) surveyed 17 independent expert reports on takeover valuations from January 2012 to October 2012. It found the mid-point MRP adopted in valuation

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460 KPMG, *Cost of capital—market practice in relation to imputation credits*, August 2005, p. 15.
461 Capital Research, *Telstra's WACC for network ULLS and the ULLS and SSS businesses—review of reports by Prof. Bowman*, March 2006, p. 17.
462 Truong, G. Partington, G. and Peat, M., *Cost of capital estimation and capital budgeting practices in Australia,* Australian Journal of Management, June 2008, vol. 33, no. 1, p. 155.
463 Bishop, S., *A conservative and consistent approach to WACC estimation by valuers*, Value Advisor Associates, 2009.
464 Fernandez and Del Campo, *Market Risk Premium used by Professors in 2008: A Survey with 1400 Answers, IESE Business School Working Paper*, WP-796, May 2009, p. 7.
465 Fernandez and Del Campo, *Market Risk Premium Used in 2010 by Analysts and Companies: A Survey with 2400 Answers, IESE Business School*, May 2010, p. 4.
466 Fernandez, Arguirreamalloa and Corres, *Market Risk Premium used in 56 Countries in 2011: A Survey with 6,014 Answers,* IESE Business School Working Paper, WP-920, May 2011, p. 3.
467 Asher, *Equity Risk Premium Survey—results and comments*, Actuary Australia, July 2011, no. 161, pp. 13–14.
468 Asher, *Equity Risk Premium Survey 2012: results and comments*, Actuary Australia, July 2012, pp. 28-29.

reports was in a 6–7 per cent range and 71 per cent of them adopted a mid-point MRP of 6 per cent.[469]

- The most recent survey by Fernandez et al. (2013) in June 2012 reported the MRP used by 73 Australian respondents. Respondents include both academics and a wide range of practitioners. It found the MRP the respondent used in 2012 was in a 3.0-10.0 per cent range, with an average of 5.9 per cent.[470] The number of Australian respondents to this survey was reasonably large, greater than previous surveys, and resulted in similar MRP responses. This provides the AER with a degree of further confidence in the results of MRP surveys.

Table 5.4 summarises the key findings of the surveys.

Table 5.4 Key findings of MRP surveys

	Numbers of responses	Mean	Median	Mode
KPMG (2005)	33	7.5%	6.0%	6.0%
Capital Research (2006)	12	5.1%	5.0%	5.0%
Truong, Partington and Peat (2008)	38	5.9%	6.0%	6.0%
Bishop (2009)	27	na	6.0%	6.0%
Fernandez (2009)	23	5.9%	6.0%	na
Fernandez and Del Campo (2010)	7	5.4%	5.5%	na
Fernandez et al (2011)	40	5.8%	5.2%	na
Asher (2011)	45	4.7%	5.0%	5.0%
Asher (2012)	49	4.6%	5.0%	4.0-6.0%
Ernst & Young (2012)	17	6.26%[471]	6.0%	6.0%
Fernandez et al (2013)	73	5.9%	6.0%	na

Sources: KPMG (2005), Capital Research (2006), Truong, Partington and Peat (2008), Bishop (2009), Fernandez (2009), Fernandez and Del Campo (2010), Fernandez et al. (2011), Asher (2011), Asher (2012), Fernandez et al. (2013).

Survey measures of the MRP across different years, different survey respondents or sources, and different authors support an MRP of 6.0 per cent. For the surveys under consideration, the most commonly used MRP was 6 per cent.

McKenzie and Partington place significant weight on survey evidence due to the triangulation of that evidence.[472] The idea behind the triangulation is that a specific survey might be subject to a particular type of bias (although there is no compelling demonstration of it). However, that the type of bias would

469 Ernst & Young, *Market evidence on the cost of equity: Victorian gas access arrangement review 2013-2017*, 8 November 2012, p.23. The AER further considers the Ernst and Young report in appendix B.

470 Fernandez, Arguirreamalloa and Corres, *Market Risk Premium used in 82 Countries in 2012: A Survey with 7,192 Answers*, IESE Business School Working Paper, CH-14, January 2013, p.3.

471 Ernst & Young only presented mid-point MRP in its report. Therefore the actual mean from those 17 valuation reports might be different to what is presented here.

472 McKenzie and Partington, *Supplementary report on the MRP*, February 2012, p. 19; McKenzie and Partington, *MRP: regime switching framework and survey evidence*, August 2012, p. 28.

likely be much less consistent across surveys using different methods and different target populations.

Lally also supported the use of survey evidence and suggested the recent Fernandez survey is the most relevant survey evidence. However, its average of 5.9 per cent should be considered as an upper bound as some respondents to this survey will have provided responses for an MRP defined against bank bills.[473]

Appendix B details the AER's further analysis and responds to SFG's view on survey evidence.

Recent Australian Competition Tribunal decisions

In 2011, Envestra challenged the AER's decisions to adopt an MRP of 6 per cent for Envestra's South Australia and Queensland gas distribution businesses. Envestra submitted the AER should have accepted Envestra's proposed 6.5 per cent MRP. The Tribunal concluded the AER's adoption of a 6 per cent MRP was reasonably open to it on the evidence:

> The critical issue in this section of the review is whether the AER's determination of the MRP at 6% was reasonably open to it on the evidence. As has already been mentioned, there was substantial evidence before the AER, both that submitted to it by service providers and that sourced by the AER itself. This evidence was not conclusive. It was incumbent upon the AER to exercise its judgment in deciding on an appropriate MRP. ...
>
> It is not sufficient for Envestra to persuade the Tribunal that 6.5% should be preferred. It must demonstrate the unreasonableness of the decision made by the AER. Unless this can be done, the Tribunal would be merely reaching a different conclusion as to the preferable result. The mere fact that the Tribunal may prefer a different rate does not entitle it to substitute its preferred MRP for that of the AER unless a ground of review has been made out. In all the circumstances of this matter, it was reasonably open to the AER to choose a MRP of 6%.[474]

The Tribunal handed down a similar decision in its review of ATCO's (formerly WA Gas Network's) and DBNGP's access arrangements.[475] In both decisions, the ERA considered the available information and exercised its judgement to determine the appropriate MRP. The Tribunal subsequently found no error in the ERA's determination of a 6.0 per cent MRP.

Expert advice commissioned by the AER

CEPA noted when the UK regulators directly estimating the MRP, the starting point is often historical data produced by Dimson, Marsh and Staunton (DMS). Forward looking estimates are often used as cross-checks for the DMS estimates, but are sometimes used more to check the reasonableness of the figure than set such a figure.[476] The premium of Australian equities over bonds for 1900-2011 from DMS is 5.6 per cent based on a geometric mean and 7.5 per cent based on an arithmetic mean. DMS noted this might be an overestimation as Brailsford, Handley and Maheswaran (2008) identified

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473 Lally, *Review of the AER's methodology*, March 2013, p.32

474 Australian Competition Tribunal, *Application by Envestra Limited (No 2) [2012] ACompT 4*, 11 January 2012, paragraphs 145 and 148.

475 Australian Competition Tribunal, *Application by WA Gas Networks Pty Ltd (No 3) ACompT 12,* 8 June 2012, paragraphs 105–8.
Australian Competition Tribunal, *Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14,* 26 July 2012, paragraphs 161–3.

476 CEPA, *Advice on estimation of the risk free rate and market risk premium, report prepared for the Australian Energy Regulator*, 12 March 2013, p.23.

dividend prior to 1958 were overstated. Further, CEPA found the valuation reports presented by Ernst and Young do support an MRP that is equal to about 6 per cent.[477]

McKenzie and Partington agreed with the AER that the 6 per cent MRP as used by the AER is not just a choice based on the historic average of the MRP. Rather, it is based upon a broader set of evidence, which includes historical, utility-based[478], survey based, and implied estimates of the equity market risk premium. Each evidence presents its own unique set of challenges and possesses its own limitations. McKenzie and Partington have comprehensively reviewed the above evidence in their December 2011 paper. In their most recent February 2013 report, they reviewed the AER's method in estimating the cost of equity and concluded again that 6 per cent is a reasonable estimate of the market risk premium.[479]

Lally holds a similar view. He notes the AER did not estimate the long run average value for the MRP. The AER uses results from both forward looking methods and historical averaging of excess returns for estimating the MRP and the results from forward looking methods unambiguously constitute estimates of the prevailing rather than the long-term average value for the MRP.[480]

In estimating the MRP, Lally favours an approach that minimises the mean squared error[481] and this leads to a consideration of the results from a wide range of methods. These methods include the historical averaging of excess returns (6 per cent), the historical average of excess returns modified for the "great inflation shock" in the 20th century (4.9 per cent), the result from the DGM approach (5.9-8.4 per cent), and the result from surveys (up to 5.9 per cent).

The median[482] of these approaches is 6.0 per cent. Lally notes a wide range of other methods are available and the cut-off point is a matter of judgement. If the historical average real market return[483] (favoured by Gregory and Wright) is considered, the estimated nominal MRP is about 8%. Adding this to the other methods, the median of these five approaches is still 6%.

Lally also considers that evidence from foreign markets may also be considered. For the first, second and fourth of the five methods described above, the cross-country averages are 6.0%, 4.0%–5.0%, and up to 5.8%. These additional results are consistent with those for Australia and therefore Lally considers these reinforce the conclusion that the appropriate MRP estimate for Australia at the present time is 6.0 per cent.[484]

Relationship between the risk free rate and market risk premium

CEPA noted the relationship between the risk free rate and the MRP is difficult to test empirically as the MRP is unobservable and any regressions would rely on developing a robust/consistent time series of investors' expectations. As such, the arguments presented by academics, regulators and companies have tended to be more indirect, and conclusions have therefore been presented in more

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477 CEPA, *Advice on estimation of the risk free rate and market risk premium, report prepared for the Australian Energy Regulator*, 12 March 2013, p.60.

478 The AER does not use utility based methods of the MRP as a distinct method on its own. Rather, the AER's application of utility theory has been in relation to assessing the reasonableness of historical excess returns as a forward looking estimate of the MRP. McKenzie and Partington found this utility theory suggests that historical risk premia are too high and therefore historical excess returns may overstate a forward looking MRP. See: M. McKenzie, and G. Partington, *Report to Corrs Chambers Westgarth: Equity market risk premium*, 21 December 2011, pp.4-8 and p.36.

479 McKenzie and Partington, *Review of the AER's overall approach*, February 2013, pp. 30-31.

480 Lally, *Review of the AER's methodology*, March 2013, pp.5-6.

481 The MSE is the average over the squared differences between estimated value and the true value.

482 Lally explained, as some methods provide estimated ranges rather than point estimates, the mean cannot be determined and therefore the median is considered. Lally, *Review of the AER's methodology*, March 2013, p. 32.

483 This approach is discussed in appendix B.

484 Lally, *Review of the AER's methodology*, March 2013, pp.38.

uncertain terms. As a result, CEPA considered there is not enough evidence to justify making a firm conclusion about the relationship between the risk free rate and the MRP.[485]

McKenzie and Partington performed a comprehensive literature review on the relationship between the risk free rate and the MRP. Despite the strong support of a negative relationship by SP AusNet's consultants, they found both a positive and a negative relationship is possible. Therefore they concluded the relationship between the MRP and the level of interest rates is an open question. They considered submissions received from SP AusNet in support of such a relationship are not sufficiently well established to form the basis for a regulatory adjustment to the MRP.[486] AER outlines and considers further McKenzie and Partington's report in appendix B.3.3. McKenzie and Partington's review of the academic literature on the theoretical and empirical evidence on the stability of the cost of equity, and on the relationship between the risk free rate and MRP, was more comprehensive than the review of the academic literature in any of the consultant reports submitted by SP AusNet. For this reason, among others discussed in appendix B, the AER has relied on the conclusion of McKenzie and Partingon's report over the conclusion from the reports submitted by SP AusNet.

Lally reviewed evidence presented by CEG, Wright, Gregory, SFG and NERA in support of a stable cost of equity or a negative relationship between the risk free rate and MRP. He identified numerous problems in the evidence presented by SP AusNet's consultants.[487] In addition, Lally applied Australian data using Wright's approach and found the time-series of MRP estimates is much more stable than that for the average real market return, and therefore supports estimating the MRP rather than the real market cost of equity from historical data.[488] While Lally noted there may be a negative relationship between the real risk free rate and the MRP, it isn't sufficiently strong to suggest the real market cost of equity is more stable than the MRP.[489] The AER further considers Lally's report in appendix section B.3.3.

The concerns raised by Lally and McKenzie and Partington on the consultant reports submitted by SP AusNet are relevant. Based on their advice, the AER concludes the theoretical and empirical evidence is not sufficiently strong in support of a relatively stable cost of equity or a strong negative correlation between the risk free rate and the MRP. Accordingly, the AER concludes its approach in estimating the cost of equity produces a reasonable cost of equity estimate that is commensurate with the prevailing conditions in the market for funds.

Recent practice among Australian regulators

Australian regulators consistently applied an MRP of 6 per cent in recent regulatory decisions. The regulators determined the MRP under a specific CAPM framework:

- The MRP is forward looking (not an historical measure) and cannot be directly observed.
- The MRP is a long term forward looking MRP (for example, 10 years) rather than a short term forward looking MRP (for example, one year). As a result, short term MRP estimates have little relevance.

485 CEPA, *Advice on estimation of the risk free rate and market risk premium,* March 2013, p.25.
486 McKenzie and Partington, *Review of the AER's overall approach*, February 2013, pp. 21-28
487 Lally, *Review of the AER's methodology*, March 2013, pp.8-18.
488 Lally, *Review of the AER's methodology*, March 2013, p.13. .
489 Lally, *Review of the AER's methodology*, March 2013, pp.16..

- The MRP is for a domestic CAPM, which means the relevance of overseas evidence depends on the similarities between overseas and domestic market conditions, and consequently may have limited relevance.[490]

Table 5.5 sets out the MRP adopted recently by Australian state and territory regulators responsible for economic regulation across the electricity, water and rail industries.

Table 5.5 Recent regulatory decisions

Regulator	Decision date	Sector	MRP (%)
ESCOSA	February 2012	Water	6.0
QCA	May 2012	Water	6.0
ESCV	June 2012	Rail	6.0
IPART	June 2012	Water	5.5–6.5
IPART	June 2012	Water	5.5–6.5
ERA	September 2012	Electricity	6.0
QCA	December 2012 (draft decision)	Water	6.0

Source: ERA, ESCV, QCA, IPART, ESCOSA.[491]

In the DBNGP matter, the Tribunal commented on the desirability of regulatory consistency:[492]

> The Tribunal regards regulatory consistency as a laudable objective, provided the particular regulator (in this case the ERA) independently fulfils its decision-making functions and responsibilities. Each regulator must do so in the context of the particular applicable legislation, and in the context of the particular issue and relevant material on that issue. The NGL under the NGA WA Act, the National Gas Law and the NGR are in most respects the same. It is not therefore surprising that the ERA should be aware of decisions of the AER, and vice versa, on particular provisions which have to be addressed. It is to be expected, in such circumstances, that experienced and well qualified regulators would also reach similar conclusions on such matters. It is to the benefit of providers of regulated services, the users of those services, and the community that—where appropriate—regulatory consistency should exist.

The AER has independently reached its conclusion by exercising its judgment on the evidence presented above. The AER has reached a similar conclusion on the MRP as that reached by state regulators. Like the AER, the ERA and QCA have consistently applied an MRP of 6.0 per cent over the recent years. While IPART has consistently set the boundaries of its WACC range by applying an MRP in the range of 5.5-6.5 per cent and a prevailing (low) risk free rate, it has chosen an overall WACC point estimate towards the top of its WACC range due to the current low risk free rate. The AER discusses the approaches of ERA, QCA and IPART in detail in appendix B. In appendix B, the AER also considers the approaches of UK and US regulators.

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490 For example, Lally considers and compares evidence on the MRP based on domestic and overseas data.

491 Essential Service Commission of South Australia (ESCOSA), *Final Advice:* Advice on a Regulatory Rate of Return for SA Water, February 2012, p. 50; Queensland Competition Authority, *Final Report:* SunWater Irrigation Price Review: 2012–17, Volume 1, May 2011, p. 503; Essential Service Commission of Victoria (ESCV)), *V/line access arrangement final decision*, June 2012, p. 208. Independent Pricing and Regulatory Tribunal (IPART), *Water – Final report:* Review of prices for Sydney Water Corporation's water, sewerage, drainage and other services: From 1 July 2012 to 30 June 2016, June 2012, pp. 198, 204; IPART, *Water – Final report: Review of prices for Sydney Catchment Authority: From 1 July 2012 to 30 June 2016,* June 2012, pp. 90, 118, 123; ERA, *Final decision on proposed revisions to the access arrangement for the* Western Power network submitted by Western Power, 5 September 2012, p. 241. QCA, *Draft Report:* Seqwater Irrigation Price Review: 2013–17, Volume 1, December 2011, p. 259.

492 Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012, paragraph 333.

5.3.4 Equity beta

The AER accepts SP AusNet's proposed equity beta of 0.8 in its revised access arrangement proposal.

The equity beta provides a measure of the 'riskiness' of an asset's return compared with the return on the entire market. The equity beta reflects the exposure of the asset to systematic or 'non-diversifiable' risk, which is the only form of risk that requires compensation under the CAPM.

In the draft decision, the AER agreed with SP AusNet's proposed equity beta of 0.8. The AER agreed with this value because the empirical evidence indicated a point estimate of between 0.4 and 0.7 for the equity beta of electricity and gas service providers.[493] Adopting an equity beta just above this range was in recognition of the level of imprecision around these estimates and the desirability of stability in regulatory decision making over time.[494] The AER's full reasons are set out in its draft decision.[495]

SP AusNet also adopted an equity beta of 0.8 in its revised access arrangement proposal.[496] The AER is not aware of any new information that causes it to depart from its draft decision position. Accordingly, the AER accepts SP AusNet's 0.8 equity beta in its revised proposal.

5.3.5 Debt risk premium

The AER accepts SP AusNet's proposed DRP method in its revised access arrangement proposal.

The DRP is the margin above the nominal risk free rate that a debt holder would require to invest in the debt issued by a benchmark efficient service provider. Combined with the nominal risk free rate, the DRP represents the return on debt and is an input into the rate of return.

In the draft decision, the AER agreed with SP AusNet's proposed benchmark and method for estimating the DRP.[497] SP AusNet also adopted the same benchmark and method in its revised access arrangement proposal.[498] For this final decision, the AER has updated SP AusNet's proposed DRP to reflect the agreed averaging period.[499] This results in a DRP of 3.35 per cent.[500]

In assessing SP AusNet's proposal, the AER also took into account recent market evidence. This includes two debt issuances by the APA Group.[501] The AER, however, considers that the available

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493 AER, *Final decision: Electricity transmission and distribution network service providers: Review of the weighted average cost of capital (WACC) parameters*, 1 May 2009, pp. 239–344

494 Most Australian regulators had previously provided electricity and gas service providers with an equity beta of either 0.9 or 1.0.

495 AER, Draft *decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017 Part 2 attachments*, September 2012, p. 117-8.

496 SP AusNet, Revised access arrangement proposal, chapter 5 - Rate of Return and Corporate Tax Allowance, 9 November 2012, p. 8.

497 The AER made minor amendments to the bond sample selected by SP AusNet for the extrapolation of the Bloomberg fair value curve. However, these amendments were to achieve consistency with the bond selection criteria proposed by SP AusNet. See section 4.3.6 of the draft decision for a detailed explanation. AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, Part 2 attachments*, September 2012.

498 SP AusNet, *Revised access arrangement proposal, chapter 5 - Rate of Return and Corporate Tax Allowance*, 9 November 2012, pp. 45–46.

499 The agreed averaging period was from 12 November 2012 to 7 December 2012.

500 For clarity, the paired bonds used to extrapolate the Bloomberg fair value curve in this final decision are the pair of Stockland bonds (maturing in 2016 and 2020), and the pair of Sydney Airport Finance bonds (maturing in 2015 and 2021). Estimated yields from both UBS and Bloomberg are available for the Stockland issuances, while only UBS data is available for the Sydney Airport Finance bonds. Each bond pair has been given equal weight in determining the extrapolation adjustment. That is, the Stockland spreads have been averaged to determine a single estimate, with this estimate subsequently averaged with the single Sydney Airport estimate.

501 In September 2012, the APA Group completed the issuance of $515 million of subordinated notes in Australia. This hybrid capital was issued at 450 basis points above the BBSW. Shortly thereafter, in November 2012, the APA Group

market evidence is of limited use. The reasons for this are discussed in greater detail in section B.7.2 of the appendix, and include:

- the financing costs of a single entity should not be considered to be reflective of either the market as a whole, or the benchmark regulatory firm
- the available market evidence does not match the characteristics of the benchmark firm (or debt issuance).

The AER also considered the submission by the Energy Users Coalition of Victoria—that the Bloomberg BBB fair value curve overcompensated service providers for their actual cost of debt.[502] The AER stated in its draft decision that it intends to undertake a review into alternatives to the Bloomberg fair value curve. The AER considers that the current development of the rate of return guidelines represents the most appropriate forum to consider these alternatives.

5.3.6 Forecast inflation

The AER accepts SP AusNet's proposed inflation forecasting method in its revised access arrangement proposal.

This methodology is based on the geometric average of:

- the RBA's most recent inflation forecasts for the longest period available (two years), and
- the mid point of the RBA's inflation targeting band for a further eight years.

Following this method, in this final decision, the AER adopts a 10 year forward looking inflation forecast of 2.50 per cent. This result is shown in Table 5.6.

In the draft decision, the AER agreed with SP AusNet's proposed inflation forecasting method. SP AusNet's proposed method was consistent with that adopted by the AER in previous decisions. SP AusNet also adopted the same method in its revised access arrangement proposal.

Since the draft decision, the RBA released its February 2013 *Statement on Monetary Policy* which includes updated inflation forecasts for 2013 and 2014. As indicated in the draft decision, the AER has updated the RBA's short term inflation forecasts based on the most recent RBA statement available at the time of the final decision.

Table 5.6 AER inflation forecast (per cent)

	2013	2014	2015 to 2022	10 year forecast (Geometric average)
Forecast inflation	2.50 [a]	2.50 [a]	2.50	2.50

Source: RBA, Statement on Monetary Policy, February 2013, p. 65.
Notes: (a) The RBA published a range of 2-3 per cent for its 2013 and 2014 forecast inflations. The AER has selected the mid-point of 2.5 for the purposes of this final decision.

raised £350 million of debt financing in the UK. The APA Group swapped this debt into AUD at an average fixed rate of 7.36 per cent.

502 Energy Users Coalition of Victoria, *Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals*, June 2012.

5.3.7 Gearing ratio

The AER accepts SP AusNet's proposed gearing ratio of 60 per cent in its revised access arrangement proposal.

The gearing ratio is the ratio of the value of debt to total capital (that is, both debt and equity) and is used to weight the cost of equity and cost of debt when determining the rate of return. Under NGR, in determining the rate of return, it is assumed the service provider meets benchmark levels of efficiency and uses a financing structure that meets benchmark standards as to gearing for a going concern.[503]

In the draft decision, the AER agreed with SP AusNet's proposed gearing ratio of 60 per cent. The AER agreed with a 60 per cent gearing ratio because this level is supported by relevant available empirical evidence.[504]

SP AusNet also adopted a gearing ratio of 60 per cent in its revised access arrangement proposal.[505] The AER is not aware of any new information that causes it to depart from its draft decision position. Accordingly, the AER accepts SP AusNet's 60 per cent gearing ratio in its revised proposal.

5.3.8 Reasonableness checks on overall rate of return

The AER considers the approach in this decision provides a reasonable estimate of the benchmark rate of return. At the same time, the AER recognises that while the overall rate of return in this decision is similar to that in recent decisions, it is lower than that in previous decisions. There is no single robust method for estimating the overall rate of return. However, the AER's reasonableness checks suggest that the overall rate of return broadly accords with market expectations.

Techniques available to assess the overall rate of return can produce a range of plausible results. Each of these techniques has weaknesses that prevent them from being given significant weight. Nevertheless, they do provide a useful reasonableness check for the AER's primary approach. The AER examined:

- assets sales
- trading multiples
- broker WACC estimates
- recent decisions by other regulators
- the relationship between the cost of equity and the cost of debt.

For this final decision, the AER determines an overall rate of return using a nominal vanilla WACC of 7.07 per cent. This is based on a cost of equity of 7.94 per cent, a cost of debt of 6.50 per cent and a gearing level of 60 per cent. The cross checks listed above suggested the regulated rate of return is not unreasonable:

- Recent regulated assets have generally been sold at a premium to the RAB. In addition, recent RAB trading multiplies are consistently greater than one (averaging around 1.2). This evidence

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503 NGR, r.87(2)(a).

504 AER, Final decision: Electricity transmission and distribution network service providers: Review of the weighted average cost of capital (WACC) parameters, 1 May 2009, p. 126.

505 SP AusNet, Revised access arrangement proposal, chapter 5 - Rate of Return and Corporate Tax Allowance, 9 November 2012, p. 8.

provides the AER with a degree of confidence that its current approach in calculating the rate of return is reasonable.

- The overall rate of return does fall below the range of estimates found in broker reports (7.38-10.02 per cent). The lower bound of this range has decreased from the draft decision due to lower WACCs in more recent broker reports. The upper bound was calculated from a less recent report dated October 2012[506], and if this one report was excluded the upper bound would reduce to 9.52%. However, the AER notes the broker WACC technique is subject to known limitations and inherent imprecision. Further, broker WACC estimates of themselves do not demonstrate the overall rate of return is unreasonable, given this is the only aspect of the reasonableness check that has indicated a potential concern.
- While the overall rate of return is lower than AER decisions from more than a year ago, it is in line with recent regulatory decisions made by other Australian regulators (5.78–8.65 per cent). It is also in line with other recent AER decisions.
- The cost of equity determined by the AER is greater than the cost of debt. This accords with what is expected according to finance theory, given investment in equity is more risky than investment in debt.

Appendix B.7.2 explores each overall rate of return reasonableness check technique in detail.

5.4 Revisions

The AER proposes the following revisions to make the access arrangement acceptable.

Revision 5.1

Make all necessary amendments to reflect the AER's final decision on the rate of return on capital for the access arrangement period, as set out in Table 5.1 of this attachment.

[506] AER analysis based on Goldman Sachs, *APA Group: Non cash significant item leads to FY13 EBITDA guidance upgrade*, 24 October 2012, p. 2.

6 Depreciation

When determining the total revenue for SP AusNet, the AER must decide on the depreciation for the projected capital base (or return of capital).[507] Regulatory depreciation is used to model the nominal asset values over the access arrangement period and the depreciation allowance in the total revenue requirement. In this attachment, the AER outlines its final decision on SP AusNet's annual regulatory depreciation allowance[508] The AER also sets out its consideration of specific matters that affect the estimate of regulatory depreciation over the 2013–17 access arrangement period. These include:

- the standard economic lives for depreciating new assets associated with forecast net capex
- the remaining economic lives for depreciating existing assets in the opening capital base.

6.1 Final decision

The AER does not approve the regulatory depreciation allowance of $124.8 million ($nominal) for the 2013–17 access arrangement period in SP AusNet's revised proposal. This is because the AER's adjustments to other building block components have had a consequential effect on the forecast regulatory depreciation allowance. These are discussed in other attachments and include:

- the roll forward of the opening capital base (attachment 3)
- forecast capex (attachment 4).

The AER's final decision on SP AusNet's total regulatory depreciation allowance over the 2013–17 access arrangement period is $125.7 million ($nominal) as shown in Table 6.1. This represents an increase of $0.9 million ($nominal) or 0.7 per cent from the total regulatory depreciation allowance in SP AusNet's revised proposal.

The AER accepts the method to recover the difference between historical actual depreciation and forecast depreciation from 1998 to 2012 (called 'unrecovered depreciation') in SP AusNet's revised proposal.[509] In its revised proposal, SP AusNet adopted all of the AER's draft decision adjustments with one minor modification.[510] The AER has reviewed and accepts the approach in SP AusNet's revised proposal.

The AER approves the standard economic lives in SP AusNet's revised proposal. The AER also accepts the depreciation calculation for existing assets in SP AusNet's revised proposal, which included establishing remaining economic lives as at 1 January 2013 for asset classes in the opening capital base.[511] Due to the AER's final decision on the unrecovered depreciation (discussed in section 6.4.1) and the roll forward of the opening capital base (discussed in attachment 3), the AER has updated the remaining economic lives for this final decision.

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507 NGR, r. 76(b).

508 Regulatory depreciation allowance is the net total of the straight-line depreciation (negative) and the annual inflation indexation (positive) on the projected capital base.

509 SP AusNet, *Revised access arrangement proposal*, December 2013, pp. 9–10.

510 SP AusNet's revised proposal allocated the unrecovered depreciation amount across all the asset classes (as opposed to the 'Distribution pipeline' asset class only).

511 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 136–138.

Table 6.1 AER's final decision on SP AusNet's depreciation allowance ($million, nominal)

	2013	2014	2015	2016	2017	Total
Straight-line depreciation	48.7	55.3	62.0	67.6	72.7	306.3
Less: indexation on opening capital base	31.9	34.1	36.2	38.3	40.1	180.6
Regulatory depreciation	16.8	21.2	25.8	29.2	32.7	125.7

Source: AER analysis.

6.2 Revised proposal

In its revised proposal, SP AusNet proposed a forecast regulatory depreciation allowance over the 2013–17 access arrangement period of $124.8 million ($nominal).[512] To calculate the depreciation allowance, SP AusNet proposed:

- to recover the difference between forecast and actual depreciation from 1998 to 2012 (using methods that are largely consistent with those in the AER's draft decision)
- using standard economic lives as set out in the AER's draft decision
- to adopt the AER's standard method in the PTRM for calculating depreciation for existing assets in the opening capital base. This included calculating remaining economic lives as at 1 January 2013 using the method outlined in the AER's draft decision.

Table 6.2 Proposed depreciation allowance ($million, nominal)

	2013	2014	2015	2016	2017	Total
Straight-line depreciation	48.7	55.3	62.2	67.8	73.3	307.3
Less: indexation on opening capital base	32.1	34.3	36.6	38.8	40.8	182.5
Regulatory depreciation	16.6	21.0	25.6	29.1	32.5	124.8

Source: SP AusNet, *Revised proposal PTRM*, November 2012.

6.3 Assessment approach

The AER's assessment approach for the regulatory depreciation allowance is set out in its draft decision. See section 5.3, attachment 5 of the draft decision for a detailed explanation of the assessment approach.

The AER received a submission from the Energy Users Coalition of Victoria (EUCV) commenting on SP AusNet's depreciation approach.

6.4 Reasons for decision

The AER's final decision on SP AusNet's regulatory depreciation allowance for the 2013–17 access arrangement period is $125.7 million ($nominal). This represents an increase of $0.9 million ($nominal) or 0.7 per cent from the regulatory depreciation allowance in SP AusNet's revised proposal. The regulatory depreciation allowance is determined based on the amount of straight-line

[512] SP AusNet, *Revised access arrangement proposal*, December 2013, p. 11.

depreciation less the amount of inflation indexation applied to the opening capital base in a given year. The AER's slight increase in the regulatory depreciation allowance for this final decision reflects the lower remaining asset lives and lower inflation indexation on the opening capital base in each year of the access arrangement period. The lower remaining asset lives increase the amount of straight-line depreciation on the capital base. The lower inflation indexation is based on the lower approved opening capital base in each year of the access arrangement period, relative to SP AusNet's revised proposal on its opening capital base. The net effect of these adjustments results in a slightly higher total regulatory depreciation allowance.

The AER accepts the method to recover the difference between actual depreciation and forecast depreciation from 1998 to 2012 in SP AusNet's revised proposal. The AER also approves the standard economic lives in SP AusNet's revised proposal and the use of remaining economic lives for calculating depreciation for existing assets in the opening capital base. The AER also updated the remaining economic lives as at 1 January 2013.

These allowances reflect the AER's final decision on other elements of SP AusNet's revised proposal that impact on the proposed regulatory depreciation allowances (discussed in the relevant attachments).

6.4.1 Depreciation approach

The AER accepts the method to recover the difference between historical actual depreciation and forecast depreciation in SP AusNet's revised proposal allowed by the ESC from 1998 to 2012 (called 'unrecovered depreciation'). The AER considers the approach in that SP AusNet's revised proposal is consistent with the AER's approaches as set out in the draft decision and therefore meets the requirements of the NGR.[513]

In the draft decision, the AER did not accept SP AusNet's proposed calculation of the unrecovered depreciation due to some modelling errors.[514] Also, the AER did not accept SP AusNet's proposed method to recover the unrecovered depreciation amount via the 'Distribution pipelines' asset class over the 2013–17 access arrangement period. The AER considered that the proposed approach did not satisfy the NGR requirements, including that the depreciation schedule should allow for adjustments reflecting changes in the expected economic life of a particular asset(s).[515] There was no proposed change to the expected economic life of the 'Distribution pipelines' asset class. Therefore, the AER considered the proposed recovery should be spread over the remaining life for assets acquired in the last 15 years (the period to which the unrecovered depreciation relates).[516] On the other hand, SP AusNet's proposed approach would have had the effect of returning the unrecovered depreciation (which relates to capex over last 15 years) over the five years of the 2013–17 access arrangement period. The EUCV submitted that the AER should require SP AusNet to maintain the same depreciation approach as set out in the draft decision.[517]

SP AusNet's revised proposal adopted all of the AER's draft decision adjustments with one minor modification.[518] SP AusNet's revised proposal allocated the unrecovered depreciation amount across

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513 NGR, rr. 89(1)(c), 74(2)(a), 74(2)(b) and r. 77(2)(d); NGR, schedule 1, r. 5(1)(d).
514 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 132–133.
515 NGR, r. 89(1)(c).
516 This remaining life only relates to capex incurred between 1998 and 2012, and does not take into account sunk assets as at 1998. The AER calculated this remaining life using a weighted average approach.
517 EUCV, *Victorian gas distribution revenue reset, AER draft decision and revised applications from Envestra, Multinet and SP AusNet: A response*, January 2013, p. 41.
518 SP AusNet, *Revised access arrangement proposal*, December 2013, pp. 9–10.

all the asset classes (as opposed to the 'Distribution pipeline' asset class only). By using the proportion of capex within the asset classes relative to total capex as weights, SP AusNet spread the unrecovered depreciation amount over the remaining economic lives of all the asset classes.[519] This method involves more detailed calculations and is consistent with the AER's draft decision method. The AER has reviewed and accepts the method in SP AusNet's revised proposal. Accordingly, the AER accepts that the unrecovered depreciation amount should be spread across all the asset classes, as it reflects the mix of assets acquired over the last 15 years. Moreover, SP AusNet's proposed method in its revised proposal does not have a material impact on the total revenue over the 2013–17 access arrangement period.

The reallocation of unrecovered depreciation across all asset classes affects the calculation of SP AusNet's remaining economic lives as at 1 January 2013 (discussed in section 6.4.3).

6.4.2 Standard economic life

The AER approves the standard economic lives in SP AusNet's revised proposal. These standard economic lives reflect the revisions proposed by the AER in its draft decision.[520]

The AER's draft decision accepted most of SP AusNet's proposed standard economic lives (except for the 'Land & buildings' asset class).[521] The AER considered that these lives are consistent with the ESC's approved standard economic lives in the 2008–12 access arrangement period. However, as a result of the AER's draft decision to split the 'Land & buildings' asset class into two separate asset classes to apply from 1 January 2013, the AER assigned a standard economic life of 40 years to the 'Buildings' asset class. The AER did not assign a standard economic life to the 'Land' asset class.[522]

SP AusNet's revised proposal adopted the standard economic lives as set out in the draft decision.[523]

The AER's final decision on SP AusNet's standard economic lives is set out in Table 6.3.

6.4.3 Remaining economic life

The AER approves SP AusNet's remaining economic life as at 1 January 1998 associated with low pressure mains for the 2013–17 access arrangement period.[524]

The AER also accepts SP AusNet's depreciation calculation for existing assets, which included establishing remaining economic lives as at 1 January 2013 for asset classes in the opening capital base.[525] Due to the AER's final decision on the unrecovered depreciation (discussed in section 6.4.1) and the roll forward of the opening capital base (discussed in attachment 3), the AER has updated the remaining economic lives for this final decision.[526]

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519 These remaining lives only relate to capex incurred between 1998 and 2012, and do not take into account sunk assets as at 1998. SP AusNet applied the AER's weighted average approach to derive these remaining lives.

520 SP AusNet, *Revised access arrangement proposal*, December 2013, p. 10.

521 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 133-135.

522 Because land is a non-depreciating asset, for modelling purposes, the AER used a term of 'n/a' as the standard economic life input for the 'Land' asset class to apply from 2013.

523 SP AusNet, *Revised access arrangement proposal*, December 2013, p. 10.

524 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 135–136.

525 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 136–138.

526 At the next review, SP AusNet could apply the AER's standard weighted average remaining economic lives calculation to roll the capital base forward to 1 January 2018, given the remaining economic lives as at 1 January 2013 have now been established.

SP AusNet did not propose any remaining economic lives as at 1 January 2013 in its original proposal.[527] This was due to the approach SP AusNet took to calculating depreciation for existing assets in the opening capital base.[528] The AER's draft decision did not accept SP AusNet's proposed approach, because it considered that this approach was not consistent with the requirements of NGR.[529] The AER's draft decision required that SP AusNet adopt the AER's standard method in the PTRM for calculating depreciation for existing assets, and to establish remaining economic lives as at 1 January 2013. SP AusNet's revised proposal adopted all the AER's draft decision on calculating depreciation for existing assets.[530]

The AER's final decision on SP AusNet's standard economic lives and remaining economic lives as at 1 January 2013 is set out in Table 6.3.

Table 6.3 AER's final decision on SP AusNet's standard economic lives and remaining economic lives as at 1 January 2013 (years)

Asset class	AER final decision—standard economic life	AER final decision—remaining economic life
Transmission pipelines	60	24.5
Distribution pipelines	60	32.5
Service pipes	60	35.8
Cathodic protection	60	26.7
Supply regulators / valve stations	50	33.3
Meters	20	11.2
SCADA and remote control	15	11.1
Land	n/a	n/a
Buildings	40	25.2
Other—IT	5	4.9
Other—non IT	5	4.7

Source: AER analysis.
n/a Not applicable.

6.5 Revisions

The AER proposes the following revisions to make the revised access arrangement proposal acceptable:

Revision 6.1: Make all necessary amendments to reflect the AER's final decision on the regulatory depreciation allowance for the 2013–17 access arrangement period, as set out in Table 6.1.

527 SP AusNet, *PTRM*, March 2012.
528 SP AusNet's original proposal applied an approach to depreciate each year's capex spend individually since 1998. As such, there was no remaining economic life for each asset class in SP AusNet's model as at 1 January 2013. Rather, there were many individual remaining economic lives associated with capex for each regulatory year in the past.
529 NGR, rr. 74(2)(a) and 74(2)(b).
530 SP AusNet, *Revised access arrangement proposal*, December 2013, p. 10.

Revision 6.2: Make all necessary amendments to reflect the AER's final decision on the remaining economic lives as at 1 January 2013, as set out in Table 6.3.

7 Operating expenditure

Operating expenditure (opex) refers to the operating, maintenance and other non-capital costs incurred in providing pipeline services.[531] It incorporates labour costs associated with operating the gas distribution network.

The AER is required to assess SP AusNet's forecast opex to decide whether it is satisfied the forecast opex complies with applicable criteria prescribed by the NGL and NGR.[532] This includes that any forecast or estimate must be arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances.[533]

7.1 Final decision

The AER's final decision is not to approve a forecast opex of $252.4 million ($2012) for the 2013–17 access arrangement period for SP AusNet. The AER is not satisfied that SP AusNet's forecast of opex for the 2013–17 access arrangement period complies with the opex criteria and the criteria for forecasts and estimates.[534] The AER proposes forecast opex of $256.3 million ($2012) for the 2013–17 access arrangement period.

The differences between the AER's final decision on forecast opex and SP AusNet's revised opex forecast proposal is primarily due to different views about forecast step changes above base year opex and forecast labour cost escalations (whether to include a partial factor productivity adjustment).

Table 7.1 compares the AER's final decision to SP AusNet's revised proposal for each year of the 2013–17 access arrangement period.

Table 7.1 Comparison of SP AusNet's initial and revised proposals, and AER draft and final decisions ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet initial proposal	50.8	52.7	54.3	56.4	58.4	272.6
AER draft decision	45.9	46.9	47.5	48.2	49.0	237.5
SP AusNet revised proposal	47.7	49.1	50.4	51.9	53.4	252.4
AER final decision	48.4	50.6	51.4	52.4	53.5	256.3

Source: AER analysis.

7.2 Revised proposal

SP AusNet's revised proposal forecasts total operating expenditure of $252.4 million ($2012) for the 2013–17 access arrangement period.[535] This is a reduction of $20.1 million ($2012) from SP AusNet's initial proposal of $272.6 million ($2012).

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531 NGR, r. 69.
532 NGR, rr. 91, 74(2), 100.
533 NGR, r. 74.
534 NGR, rr. 91 74(2), 100.
535 SP AusNet, *Revised access arrangement proposal: Chapter 3: Operating Expenditure*, 9 November 2012, p. 2.

SP AusNet's revised proposal:

- adopted the majority of the AER's draft decision amendments to base year opex with the exception of the removal of the movement in provision associated with the 2011 unaccounted for gas expense.
- adopted the majority of the AER's draft decision amendments to the rate of change except the AER's labour cost escalators.
- did not adopt the AER's draft decision on four of seven proposed step changes (the reduction in the Carbon Tax step change, the rejection of network operations step changes for Magnetic Tomography (MTM), survey of mains and services in drains, and operations fees on Custody Transfer Meters (CTMs)).[536]
- reclassified survey to determine location of class 250 mains as an opex step change.[537]

7.3 Assessment approach

The AER's assessment approach for opex is set out in attachment 6 of the AER's draft decision.[538]

Where the AER considered additional material to inform this final decision, this is noted in its reasons for decision.

The AER received submissions on opex from the Energy Users Coalition of Victoria (EUCV) and the Victorian Minister for Energy and Resources.

The EUCV provided a submission setting out its concerns regarding the Victorian distribution businesses' proposals.[539] The EUCV considers the outcome of the AER's draft decision analysis is consistent with the long term growth in opex and has resulted in an appropriate outcome. The EUCV considers that SP AusNet's revised opex claim is not justifiable but notes that because much of the information is confidential, its assessment is limited to an assessment of the information SP AusNet made public. It also agrees with the approach taken by the AER in the draft decision in relation to step changes. The EUCV considers that unless an exogenous change has occurred, then it cannot be classed as a step change.[540]

The Victorian Minister for Energy and Resources provided a submission supporting the AER's approach to assessing the Victorian distribution businesses' opex proposals. It notes that the assessment of step changes in operating expenditure tends to be focused on increases in expenditure and not on decreases in expenditure. As there are variations in expenditure from year to year, the Minister notes the AER needs to consider the extent to which small increases in expenditure will be offset by small decreases in expenditure that have not been forecast.[541]

The AER's consideration of specific comments made by the EUCV and the Minister are discussed in the relevant section of this chapter.

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536 SP AusNet, *Revised access arrangement proposal, Chapter 3: Operating Expenditure*, 9 November 2012, p. 2.
537 SP AusNet, *Revised access arrangement proposal, Chapter 3: Operating Expenditure*, 9 November 2012, p. 18.
538 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, Part 2, September 2012, p. 145.
539 Energy Users Coalition of Victoria, *Submission to the AER: AER draft decision and revised applications from Envestra, Multinet and SP AusNet*, January 2013, pp. 25–26.
540 Energy Users Coalition of Victoria, *Submission to the AER: AER draft decision and revised applications from Envestra, Multinet and SP AusNet*, January 2013, p. 25.
541 Minister for Energy and Resources, *Victorian Gas Access Arrangement Review – Victorian Government Submission*, 14 January 2012, pp. 3–4.

In forming its views the AER has also considered advice from Deloitte Access Economics (DAE) on labour cost escalators.[542]

7.4 Reasons for determination

The AER's final decision is not to approve SP AusNet's forecast opex.

The AER accepts SP AusNet's proposal that its opex forecast be based on a base year roll forward method, using 2011 as the base year, consistent with its initial proposal and the AER's draft decision.

Using this method, historical expenditure, and particularly 2011 expenditure, plays a key role in forecasting and assessing efficient opex.

The importance of 2011 expenditure is partly due to the efficiency sharing mechanism in SP AusNet's existing access arrangement. The efficiency sharing mechanism recognises the incentive to reduce opex is driven by both the ex ante opex allowance and carryover amounts.[543] The use of actual opex in determining the opex allowance for the following access arrangement period is a key factor in whether the mechanism will achieve its stated objective. This is to allow SP AusNet to retain the reward associated with efficiency improving initiatives for five years. For the mechanism to achieve this objective, opex must be forecast based on actual expenditure in the penultimate year of the preceding access arrangement period, in this instance 2011.

If external benchmarks, or a bottom up forecast, were used to set opex allowances SP AusNet's opex allowance would not reflect revealed costs, and revealed efficiencies would not be clawed back.[544] Consequently, SP AusNet would be rewarded twice, once in the ex ante opex allowance, and a second time in the carryover amounts under the mechanism. Therefore, it is important actual expenditure in 2011 be used as the basis for setting opex forecasts for the 2013–17 access arrangement period, where an efficiency sharing mechanism exists.

However, there are a number of reasons why efficient opex in the 2013–17 access arrangement period will be different from actual expenditure in 2011. It is necessary to take these into account to ensure SP AusNet retains the reward associated with efficiency improving initiatives for five years.

1. increased demand for SP AusNet's outputs may require it to expand its network. It is reasonable that an efficient service provider will require more inputs, and thus greater opex, to deliver more output. It therefore is reasonable to assume it needs an allowance for network growth.

2. it is reasonable to assume that the cost of inputs for an efficient firm to produce the same level of output may not change at the same rate as CPI. Consequently it is reasonable to account for real cost changes in SP AusNet's inputs. However, to the extent the cost of inputs change, the input mix which minimises costs will also likely change. Thus, to apply input cost escalation while

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542 Deloitte Access Economics, *Forecast growth in labour costs in Victoria –report prepared for the AER*, 4 February 2013.

543 An ex ante opex allowance provides an incentive to reduce opex since it allows a network service provider to retain all opex underspends during the access arrangement period. However, since opex is mostly recurrent, the incentive to reduce expenditure declines as the period progresses since the network service provider would not be able to retain the savings for as long. Carryover amounts allow the network service provider to retain opex savings for five years regardless of the year in which the savings are made.

544 Under a revealed cost opex forecasting approach actual opex is used as the basis for determining opex forecasts. Consequently revealed efficiency savings are 'clawed back' when actual opex, including the revealed efficiency savings, is used to forecast opex for the following access arrangement period. This shares the efficiency gains between the network service provider and its customers. However, if something other than actual costs is used to forecast opex revealed efficiencies have no impact on opex forecasts and the efficiencies are retained by the network service provider.

assuming a constant input mix will provide at least the efficient costs of a prudent service provider.

3. There may be other reasons beyond SP AusNet's control that will increase or decrease its costs. For example, regulatory obligations may change requiring SP AusNet to increase expenditure to meet those new obligations. For this reason the AER allows for other incremental increases above base year opex (often referred to as step changes). Generally step changes should only be provided for cost increases beyond the service provider's control. Otherwise the step change would represent an increase in costs to produce the same level of output and thus a loss in efficiency.

The AER has accepted most of the adjustments proposed by SP AusNet in its revised proposal. The adjustments to base year opex include additional allowances for SP AusNet above its base year opex for:

- an increased Energy Safe Victoria levy.
- forecast escalation in labour costs
- SP AusNet's network expansion
- a new safety program that responds to recent concerns identified by the EUCV and WorkSafe Victoria (gas pipes in drains)
- implementation of a new technology to reduce the safety risks associated with unpiggable gas pipelines (magnetic tomography pipeline inspection)
- a change in capitalisation policy
- debt raising costs

The AER has not accepted two of SP AusNet's proposed opex increases for operation fees on custody transfer meters (CTMs) and for a survey to determine location of Class 250 mains.

The AER's final decision is discussed in further detail below under the following headings:

- forecasting base year opex
- network growth
- real cost escalation
- step changes

Further reasoning about the AER's final decision on real cost escalation is provided in Appendix A.

Where SP AusNet's position in its revised proposal is the same as the position as the AER adopted in the draft decision, this is noted in the relevant section. Refer to attachment 6 of the draft decision for these reasons.

7.4.1 Forecasting base year opex

SP AusNet proposed its actual expenditure for 2011 be used to forecast its opex for the 2013–17 access arrangement period, subject to the following adjustments:

1. normalisation of maintenance costs
2. removal of non-reference services costs
3. SPI management services (SPIMS)
4. returning unaccounted for gas (UAFG) to benchmark cost level
5. removal of movements in provisions
6. expected escalation of base year costs in 2012.

For each of these adjustments SP AusNet adopted the AER's draft decision with the exception of the treatment of movements in provisions. The AER's final decision on the adjustments to SP AusNet's base year opex is set out in Table 7.2 and discussed below.

Table 7.2 Revised proposal and AER final decision on base year adjustments ($million, $2012)

	SP revised proposal	AER final decision	Difference
Unadjusted 2011 opex	45.3	45.3	–
Removal of non-reference services costs	–1.7	–1.7	–
Returning UAFG to benchmark cost level	–0.9	–0.9	–0.0
Movement in provisions	0.2	0.2	0.0
Removal of licence fees	–	0.1	0.1
Expected escalation of base year costs in 2012	1.5	1.5	0.0
Expected opex in 2012	44.5	44.5	0.1

Note: Total may not add due to rounding.
Source: AER analysis.

Movements in provisions

For the reasons discussed in its draft decision, the AER considers that movements in provisions may not represent actual costs incurred in a given year and should be removed from base year expenditure. However, by removing movements in provisions in its draft decision, the AER inadvertently removed the movement in provisions for unaccounted for gas expenditure from base opex twice. This is because $0.8 million ($2012) of the $0.9 million ($2012) expense was booked to SP AusNet's profit and loss statement via its provision account.[545] Consistent with SP AusNet's revised proposal the movement in provisions related to unaccounted for gas should not be removed from the base year. The impact of this is to increase SP AusNet's base opex by $0.8 million ($2012) to ensure unaccounted for gas expenses are not deducted twice.

Licence fees

SP AusNet receives revenue to pay its licence fees through a licence fee factor in its tariff control formula (attachment 12). Consequently licence fees should be removed from base opex to ensure

[545] SP AusNet, *Revised access arrangement proposal, Chapter 3: Operating Expenditure*, 9 November 2012, p. 6.

SP AusNet's revenue does not recover these costs twice. However, the AER did not remove these costs from base opex in its draft decision due to an oversight. Similarly SP AusNet did not remove these costs from base opex in its revised proposal. Removing licence fees from base opex also ensures consistency with the calculation of efficiency gains in the incentive mechanism which removes these costs (attachment 8)

7.4.2 Rate of change increase in opex

Real cost escalators

The AER is not satisfied SP AusNet's proposed real labour and materials cost escalators were arrived at on a reasonable basis or represent the best possible forecast of labour and materials cost escalation over the 2013–17 access arrangement period. Appendix A contains the AER's consideration of the real cost escalators proposed by SP AusNet.

Table 7.3 outlines the impact of the AER's final decision on real cost escalators for SP AusNet.

Table 7.3 Impact of real cost escalation ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet revised proposal	0.4	0.9	1.5	2.1	2.7	7.5
AER final decision	0.3	0.7	1.3	1.8	2.3	6.4
Difference	–0.1	–0.2	–0.3	–0.3	–0.4	–1.2

Source: AER analysis.

Productivity improvements

The AER is not satisfied SP AusNet's removal of partial productivity in opex has been arrived at on a reasonable basis or represent the best possible forecast of opex over the 2013–17 access arrangement period. Appendix A contains the AER's consideration of the interaction between real cost escalation and productivity improvements.

Table 7.4 outlines the impact of the AER's final decision on the impact of partial productivity forecasts for SP AusNet.

Table 7.4 Impact of partial productivity forecasts ($million, $2012)

	2013	2014	2015	2016	2017	Total
SP AusNet revised proposal	–	–	–	–	–	–
AER final decision	–0.3	–0.6	–1.0	–1.4	–1.7	–5.0
Difference	–0.3	–0.6	–1.0	–1.4	–1.7	–5.0

Source: AER analysis.

Network growth

The AER accepted SP AusNet's network growth escalation in the draft decision. The AER considered the differences between SP AusNet's forecast customer numbers and energy throughput and the AER's forecasts not to be materially different.

The differences between SP AusNet's revised proposal and the AER's final decision are attributed to the different base year costs which are escalated by the output growth rates (see Table 7.5).

Table 7.5 Impact of output growth escalation ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet's revised proposal	0.8	1.6	2.3	3.1	3.9	11.6
AER's final decision	0.8	1.5	2.3	3.0	3.8	11.4
Difference	0.0	–0.0	–0.0	–0.1	–0.1	–0.2

Source: AER analysis.

7.4.3 Step changes

SP AusNet proposed the following eight step changes in its initial proposal:

1. changes to heater maintenance
2. pipe saddle repairs
3. National Energy Customer Framework (NECF)
4. survey of mains and services in drains
5. operations fees on custody transfer meters
6. magnetic tomography method pipeline inspection
7. carbon tax
8. survey to determine location of class 250 mains.[546]

SP AusNet's revised proposal adopted the AER's draft decision on three of these step changes (changes to heater maintenance, pipe saddle repairs and NECF).[547] No additional information was provided regarding these opex items. The AER's final decision is to accept SP AusNet's revised proposal on these opex items based on its reasoning in its draft decision.[548]

The AER's final decision on SP AusNet's proposed step changes is set out in Table 7.6. The AER has also decided to address the increase in the Energy Safe Victoria (ESV) levy as a step change rather than through the annual tariff variation mechanism proposed in the draft decision. The following sections discuss the AER's final decision and reasons for the decision in relation to each step change where SP AusNet did not adopt the AER's draft decision.

Table 7.6 Impact of step changes ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet revised proposal	2.1	2.2	2.0	2.3	2.4	11.0

546 The expenditure related to this step change was classified as capex in SP AusNet's initial proposal and has been reclassified as opex in response to the AER's draft decision.
547 SP AusNet, *Revised access arrangement proposal, Chapter 3: Operating Expenditure*, 9 November 2012, p. 18.
548 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, Part 2, September 2012, pp. 153–158.

AER final decision	3.1	4.4	4.3	4.5	4.7	21.0
Difference	1.0	2.3	2.2	2.2	2.3	10.0

Source: AER analysis.

AER approach to assessing step changes

Step changes generally fall into three categories:

1. regulatory change
2. non-recurrent expenditure
3. discretionary expenditure

These categories are indicative of how the AER is able to assess whether expenditure meets the applicable criteria prescribed by the NGL and NGR.[549]

Regulatory change

The AER generally considers an increase in opex to meet an existing regulatory requirement would be an efficiency loss as it would cost a business more to meet the same requirement. Consequently a step change would not be required.

However, the AER also recognises a gas service provider should be provided with a reasonable opportunity to recover at least the efficient costs incurred in complying with a regulatory obligation or requirement.[550] In some circumstances there may be external factors, beyond its control as to why a gas service provider might require an increase in expenditure to meet an existing regulatory requirement. In these circumstances, a step change may be required.

Non-recurrent expenditure

A gas service provider's opex program will not be exactly the same from year to year. Actual opex in the base year reflects both recurrent expenditure and non-recurrent expenditure. Consequently base year opex will include non-recurrent expenditure that will not be required in the next access arrangement period for the same activities. However, non-recurrent expenditure incurred in the base year is not typically removed from base year opex. Consequently, the fact a particular activity was not undertaken in the base year is not sufficient evidence to demonstrate a step change is required. Instead, whether base year opex will be sufficient to fund the proposed activity, or whether a step up in opex is required, needs to be considered on a case by case basis.

The Victorian Minister for Energy and Resources made the same point in his submission:[551]

> The assessment of step changes in operating expenditure tends to be focused on increases in expenditure and not on decreases in expenditure. There will be some variation in expenditure from year to year—the AER needs to consider the extent to which small forecast increases in expenditure will be offset by small decreases in expenditure that have not been forecast.

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550 NGL, s. 24(2)(b).

551 Minister for Energy and Resources, *Victorian Gas Access Arrangement Review – Victorian Government Submission*, 14 January 2012, pp. 3–4.

The AER considers there could be reasons where a significant increase in non-recurrent expenditure is required. In some cases a gas service provider may have relatively limited discretion in whether or not to undertake this expenditure. For example, some maintenance costs may be lumpy. As a result, base year opex may be insufficient to cover the costs of the new program of expenditure. In this case a step change in opex may be required.

Discretionary expenditure

The AER does not typically consider an incremental increase above base year opex is required for discretionary expenditure.

For instance, a gas service provider might propose step changes above base year opex for projects or programs it stated would increase productivity. However, if a new program of expenditure delivers productivity savings those cost savings should also be factored into the forecast of total opex. Adding a step change above base year opex to total opex will not produce an efficient forecast if the cost savings resulting from the step change are not taken into account.

Similarly if a project or program is being undertaken at a gas service provider's discretion on productivity grounds then it is only prudent if the cost savings outweigh the costs. Consequently a step change is not required because, all else equal, total opex will be reduced by the project or program.

In some limited circumstances the benefits of a discretionary project may not be productivity gains, but the project is expected to lead to lower prices to customers. If there are few benefits to the gas service provider, the benefits of undertaking the project to the gas service provider may not outweigh the cost of the project. Therefore it may not undertake the project without an increase in opex. A step change in opex may be necessary so that customers benefit in the long term.

Assessment of proposed step changes

Survey of gas mains and services in drains

The AER's final decision is to approve a step change in opex for the survey of gas mains and services in drains. The AER is satisfied SP AusNet will incur increased costs not accounted for in its base year to conduct these surveys. This addresses a safety issue identified by WorkSafe Victoria and Energy Safe Victoria (ESV). The AER is satisfied that an increase in opex to fund this proposal is consistent with r. 91 of the NGR and the forecast incremental opex in delivering this project is consistent with r. 74(2) of the NGR.

SP AusNet's initial proposal included a step change for two survey programs to identify problem gas mains and services and seek to relocate them. The potential risks of gas pipelines running through storm water drains and sewers was recognised by WorkSafe Victoria through an industry-wide alert.

The AER's draft decision did not accept this step change. It stated that if the risks associated with gas pipes installed in drains are material, SP AusNet acting in accordance with good industry practice to achieve the lowest sustainable cost of delivering pipeline services would have taken immediate action to address this risk. The AER considered an increase in opex to fund a program to address a risk that should have already been addressed prior to the 2013–17 access arrangement period would not be in accordance with good industry practice.

In its revised proposal SP AusNet noted that the risk was first identified in 2010 and SP AusNet had no prior opportunity before the end of 2011 to plan, develop and deliver a program to fully address the risk.[552]

The AER accepts SP AusNet faces increased costs not already accounted for in its base year to conduct these surveys in response to the dangers noted by WorkSafe Victoria and the ESV. Although this step change is not in direct response to a regulatory change, the survey of mains and services in drains addresses a safety issue by mitigating the risks for third party damage to SP AusNet's network. This safety issue was not apparent when SP AusNet acquired the network and was first identified in 2010.[553] The AER therefore considers it appropriate to approve a step change for this expenditure.

In response to an information request SP AusNet revised the unit cost of its sample survey of services in drains. This results in a decrease in the total cost of the survey from $600 000 to $352 000 for the 2013–17 access arrangement period.[554]

The AER notes that the gas pipes in drains program is a non-recurrent cost. In some instances the AER considers there does not need to be an increase in total opex to fund a non-recurrent program. However, in this instance, the expenditure is intended to address a safety issue raised by the ESV and WorkSafe Victoria. Because the proposed non-recurrent expenditure will address an external directive to reduce a safety risk, the expenditure is similar to a change in regulatory requirement. Given these external factors are driving the proposed expenditure, the AER considers there is a stronger case for an increase in total opex than other proposed non-recurrent expenditure. Therefore, on balance the AER also considers than an increase in total opex to fund this program would satisfy r. 74.

Operation fees on custody transfer meters (CTMs)

The AER's final decision is to not approve a step change in opex for operation fees on CTMs. The AER is not satisfied that the forecast increase in opex for SP AusNet's operation fees on CTMs is required. The AER considers the additional opex required for the new CTMs is already provided for in the network/output growth escalation of opex.

SP AusNet's initial proposal included a step change for increased operating expenses resulting from the installation of three network city gate regulating facilities over the 2013–17 access arrangement period.[555]

The AER's draft decision did not accept this step change on the basis that the step change was not required in addition to the network growth escalator SP AusNet applies to its opex forecasts. The AER noted that the network growth escalator provided SP AusNet the additional opex required to supply more energy to more customers. The AER considered this included operating and maintenance expenditure associated with new network equipment, including CTMs. Consequently, the AER considered the proposed step change double counted network growth escalation.[556]

SP AusNet did not adopt the AER's draft decision because:

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552 SP AusNet, *Revised access arrangement proposal, Chapter 3: Operating Expenditure*, 9 November 2012, p. 25.
553 SP AusNet, *Response to AER information request FD2b*, 21 December 2012, pp. 1 – 2.
554 SP AusNet, *Response to AER information request FD2b*, 21 December 2012, p. 3.
555 SP AusNet, *Access arrangement information*, 30 March 2012, p. 150.
556 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, Part 2, September 2012, p. 156.

- SP AusNet considers the AER has found similar programs to be prudent and efficient for other gas distribution networks; and
- the AER's conclusion that operating expenditure for three new CTMs lies within the 'Output Growth/Network Growth' escalator is incorrect.[557]

SP AusNet considered the AER has been inconsistent with its approach in assessing new CTM operational expenses for the 2013–17 access arrangement period as it approved a step change for Envestra for comparable expenditure.

The AER took a different approach to assessing step changes for this expenditure for SP AusNet and Envestra in its draft decision because of their different approaches to account for network/output growth in their opex forecasts:

- SP AusNet applies an output growth escalator to its opex forecasts. This is a top-down approach to account for increases in costs due to network and output growth. This escalation of total opex allows SP AusNet to recover increased operating and maintenance costs associated with new network equipment, including CTMs. Also allowing a step change for costs associated with the new CTMs would allow SP AusNet to recover the costs associated with this new network equipment twice.
- Envestra's approach to calculating network growth is a bottom up forecast. This approach does not apply an output growth escalator to account for increases in costs due to network and output growth. Rather, Envestra identifies the costs that increase due to network and output growth and adds them as step changes. If no step changes for increased costs due to network and output growth were added, Envestra would not be recovering these costs.

The AER has used the same approach to calculating network/output growth for opex for SP AusNet in the final decision as it took in its draft decision for SP AusNet. This approach, as set out above, takes into account SP AusNet's approach to accounting for its network/output growth.

The AER considers this growth escalator allows SP AusNet to recover increased operating and maintenance costs associated with the network and output growth including growth in energy throughput into the network. SP AusNet did not agree with the AER's draft decision that output growth would compensate the increase in operating costs due to the new CTMs.[558] However, SP AusNet did not provide any evidence to support its submission that the AER was incorrect in concluding that the new CTMs lie within the network/output growth escalation.

The AER therefore does not approve the revised proposal to include operation fees on CTMs. The additional opex required for the new CTMs is already provided for in the network/output growth escalation of opex. As such, the forecast for this step change is not arrived at on a reasonable basis and does not produce the best forecast possible in the circumstances.[559] Therefore, the addition of this step change to total opex is not forecast opex that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.[560]

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557 SP AusNet, *Revised access arrangement proposal, Chapter 3: Operating Expenditure*, 9 November 2012, p. 23.
558 SP AusNet, *Revised access arrangement proposal, Chapter 3: Operating Expenditure*, 9 November 2012, p. 23.
559 NGR, r. 74(2).
560 NGR, r. 91(1).

Magnetic tomography method (MTM) inspections of unpiggable gas pipelines

The AER's final decision is to approve a step change for MTM inspections of unpiggable gas pipelines. The AER is satisfied this step change will address safety issues relating to unpiggable gas pipelines and SP AusNet will face additional costs not already incurred in its base opex.

SP AusNet's initial proposal included a step change of $0.39 million ($2012) for MTM inspections of unpiggable gas pipelines. SP AusNet proposed to introduce MTM as a complementary method of demonstrating the integrity of its pipelines which are deemed unpiggable due to their geometry (sharp bends, changing diameter) and lack of pig launching and receiving facilities. SP AusNet considers this technology will enable it to assist in the integrity management of its licensed pipeline and fulfil its obligations to AS2885.3.[561]

The AER's draft decision did not accept a step change for MTM inspections as the results of the field trials of MTM were not available at the time of the draft decision. It considered the results of the field trials being undertaken by SP AusNet were important for determining how SP AusNet would use MTM in the future. How SP AusNet intended to use MTM would also determine the opex SP AusNet would incur in the 2013–17 access arrangement period. Therefore, the AER was not satisfied that an incremental increase in opex for MTM inspections is opex that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.[562]

SP AusNet's revised proposal did not adopt the AER's draft decision to reject a step change for MTM inspections. Subsequent to the release of the AER's draft decision, SP AusNet received the results from the field trials which were consistent with the verification pipeline dig-up inspections. SP AusNet considers these validate the use of MTM technology for the pipeline integrity management program. SP AusNet submits that the AER reconsider SP AusNet's initial proposal in light of the results of the field trials.[563]

The results of the field trials indicated that MTM technology is a successful and viable alternative inspection method and that there can be significant savings in terms of costs and disruptions when compared to existing methods of detection and monitoring pipeline integrity.[564]

In response to the AER's request for further information, SP AusNet indicated that it did not expect to have any cost savings from the introduction of MTM technology for pipeline inspection. This was because SP AusNet intended to use MTM technology as a complementary method of integrity management rather than using it in place of existing practices. SP AusNet considers the introduction of MTM technology to its current safety management program provides additional, previously unobtainable information to help it further understand and demonstrate the integrity of its transmission assets. This allows SP AusNet to identify potential risks in transmission pipelines in situations where it was previously not possible.[565]

The EUCV's submission noted that step changes should only be allowed for exogenous changes. The EUCV considered while there are valid reasons for service providers initiating endogenous step changes, such as resulting from improved technical advancements, the introduction of improved

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561 SP AusNet, *Access arrangement information*, Appendix 6E (confidential), 30 March 2012, p. 14.
562 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, Part 2, September 2012, p. 156
563 SP AusNet, *Revised access arrangement proposal, Chapter 3: Operating Expenditure*, 9 November 2012, p. 26.
564 SP AusNet, *Revised access arrangement proposal, Appendix 3D: Argos Australia Report (confidential)*, August 2012, p. 4.
565 SP AusNet, *Response to AER information request FD5a*, received 13 December 2012.

technology should result in overall lower costs to consumers. If not, the endogenous change would be inefficient.[566]

The AER's general approach to assessing step changes is consistent with the EUCV's views. There is no change in regulatory or safety obligation requiring SP AusNet to introduce MTM technology to inspect pipelines. However, SP AusNet appears to be doing so to address particular concerns it has about its knowledge of the safety and integrity of its unpiggable transmission pipelines. The introduction of MTM inspections is intended to address information gaps that enable SP AusNet to identify risks in pipelines it has been unable to address using current technology. The AER considers the introduction of MTM technology for pipeline inspection results in an increase in SP AusNet's service quality as it will allow SP AusNet to better meet the relevant Australian standard and better target maintenance work, particularly in relation to its unpiggable pipelines. Further, the AER accepts SP AusNet's safety concerns surrounding the knowledge of the integrity of unpiggable pipelines. The AER considers the introduction of MTM technology will address these safety issues. Rather than risk the safety of SP AusNet's unpiggable transmission pipelines, the AER accepts SP AusNet requires a step change for MTM inspections.

The AER notes SP AusNet's forecasts for MTM inspections are based on a $US quote from an international provider. The AER considers the quote is reasonable, however has recalculated the proposed amount using the most recent market information for exchange rates. The AER considers an incremental increase in total opex of $0.35 million ($2012) for MTM inspections is consistent with the level of opex which would be incurred by a prudent service provider acting efficiently in accordance with accepted good industry practice to achieve the lowest sustainable cost of delivering pipeline services and represents the best forecast possible in the circumstances.[567]

Carbon tax administration

The AER's final decision is to approve a step change in opex for carbon tax administration. The AER is satisfied SP AusNet will require an extra 1.5 FTE to meet its new administrative burdens related to the carbon tax. The AER accepts that the level of expenditure proposed by SP AusNet is consistent with the level of opex which would be incurred by a prudent service provider acting efficiently in accordance with accepted good industry practice to achieve the lowest sustainable cost of delivering pipeline services and represents the best forecast possible in the circumstances.[568]

SP AusNet's initial proposal included a step change of 1.5 FTE for carbon tax administration. SP AusNet is now liable to purchase carbon credits to cover its fugitive emissions.[569]

The AER's draft decision accepted that administering the carbon scheme represents a step change in SP AusNet's opex as this expenditure was not incurred in the 2011 base year. However, the AER considered that much of the work proposed by SP AusNet would be intermittent in nature and administering this program would not require 1.5 FTE on an ongoing basis through the access arrangement period.[570]

SP AusNet's revised proposal did not adopt the AER's draft decision that 0.5 FTE was sufficient to recover the cost of carbon tax administration. SP AusNet identified new administrative burdens

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566 Energy Users Coalition of Victoria, *Submission to the AER: AER draft decision and revised applications from Envestra, Multinet and SP AusNet*, January 2013, p. 25.
567 NGR, rr. 91(1), 74(2).
568 NGR, rr. 91(1), 74(2).
569 SP AusNet, *Access arrangement information*, 30 March 2012, p. 155.
570 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, Part 2, September 2012, p. 155

including identifying and discharging SP AusNet's direct carbon liability, regulatory and statutory reporting requirements and direct administrative costs shared across multiple corporate functions.[571]

In response to the AER's information request, SP AusNet provided a position description for its climate change analyst and outlined the administrative tasks allocated to multiple aspects of SP AusNet's operations.[572] On the basis of this information, the AER is satisfied SP AusNet would require 0.5 FTE for a climate change analyst and 1 FTE for extra administrative costs spread over multiple corporate functions.

Survey to determine location of Class 250 mains

The AER's final decision is to not approve a step change in opex for SP AusNet's survey to determine location of class 250 mains. As discussed in attachment 4 the AER considers these costs to already be included in SP AusNet's capex. Therefore, the addition of this step change to total opex does not produce a forecast opex that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services and does represent the best forecast possible in the circumstances.[573]

Energy Safe Victoria (ESV) levy

The AER's final decision is to propose a step change in opex for an increase in SP AusNet's ESV levy.

The ESV has proposed to increase the levy it charges gas distribution businesses beginning in the 2013–14 financial year.

In its draft decision, the AER proposed to address the increase in the ESV levy through SP AusNet's annual tariff variation mechanism.[574] This was because it was thought at that time that the levy could not be determined before the final decision was made.

Since the draft decision the AER has been provided new information, on the level of the proposed increase in levies, by the ESV. Given this new information, the AER considers that the ESV levy increase in 2013–14 should be reflected as a step change in SP AusNet's forecast opex for the 2013–17 access arrangement period rather than through an annual tariff variation. The increase in the levy relates to a change in regulatory requirements, and therefore a prudent service provider would need it.[575]

The AER considers that the estimates provided by the ESV represent the best forecasts possible in the circumstances.[576]

The AER considers that it is not necessary to include a factor in the tariff variation formula for the ESV levy because the ESV forecasts account for expected increases in the levy.

7.4.4 Other adjustments

SP AusNet proposed other adjustments to forecast opex for:

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571 SP AusNet, *Revised access arrangement proposal, Chapter 3: Operating Expenditure*, 9 November 2012, p. 21.
572 SP AusNet, *Response to information request FD2a*, 12 December 2012, pp. 1–4.
573 NGR rr. 91(1), 74(2).
574 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, Part 2, September 2012, p. 222.
575 NGR, r. 91(1).
576 NGR, r. 74(2).

1. changes in capitalisation policy
2. reallocation of SPIMS and overheads
3. debt raising costs.

SP AusNet adopted the AER's draft decision on these, except the value of debt raising costs.

The AER approves the changes in capitalisation policy[577] and reallocation of SPIMS and overheads[578] for the reasons set out in its draft decision. The AER's final decision on the adjustments to SP AusNet's base year opex are set out in Table 7.7. The AER's position on debt raising costs is discussed below.

Table 7.7 SP AusNet proposal and AER final decision on other adjustments to forecast opex ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet revised proposal	2.2	2.6	2.4	2.8	3.1	13.2
AER determination	1.4	1.6	1.4	1.5	1.7	7.5
Difference	–0.9	–1.0	–1.1	–1.3	–1.4	–5.7

Source: AER analysis.

Debt raising costs

In its draft decision, the AER determined benchmark debt raising costs using its established approach. The AER outlined this approach in its draft decision.[579] SP AusNet's revised proposal incorporated the benchmark debt raising cost allowance (as expressed in basis points per annum) determined by the AER in its draft decision and also noted that the method is not in dispute.[580] Therefore, the AER accepts the approach SP AusNet used to determine its debt raising cost allowance in its revised proposal.

Benchmark debt raising costs

As flagged in the AER's draft decision, the AER has updated the benchmark allowance for SP AusNet's final RAB and WACC values.[581] The AER's benchmark allowance provides for four standard sized bond issues. The unit costs and the benchmark debt raising cost are shown in Table 7.8.

577 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, Part 2, September 2012, p. 161.
578 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, Part 2, September 2012, p. 150.
579 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017,* Part 2 attachments, September 2012, p. 159.
580 SP AusNet, *Revised access arrangement proposal, Chapter 3: operating expenditure*, 9 November 2012, p. 19; SP AusNet, PTRM 'Input' tab, cell G194.
581 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, Part 2 attachments, September 2012, p. 159. The debt raising costs (as expressed in dollar amount) in this final decision differs from that in SP AusNet's revised proposal because of the updated RAB and WACC inputs.

Table 7.8 AER's final decision on debt raising costs for SP AusNet based on a nominal WACC of 7.07 per cent

Value	Explanation	2 issue	3 issues	4 issues
Opening RAB	The AER accepted Opening RAB ($m, 2012)			1275.3
Total amount raised	Multiples of median MTN ($250m)	$500m	$750m	$100m
Gross underwriting fee	Median gross underwriting spread, upfront per issue, amortised	6.43	6.43	6.43
Legal and roadshow	$195 000 upfront per issue, amortised	1.11	1.11	1.11
Company credit rating	$55 000 per annum	1.10	0.73	0.55
Issue credit rating	4.5 basis points upfront per issue, amortised	0.64	0.64	0.64
Registry Fees (Startup)	$4 000 upfront per issue, amortised	0.02	0.02	0.02
Registry Fees (Ongoing)	$9 000 per issue per annum	0.36	0.36	0.36
Total	Basis points per annum	9.7	9.3	9.1

Source: AER analysis

The debt raising cost benchmark for SP AusNet is 9.1 bppa of total debt raised. This has resulted in the debt raising costs for SP AusNet outlined below in Table 7.9.

Table 7.9 Debt raising costs for SP AusNet ($million, 2012)

	2013	2014	2015	2016	2017
Debt raising costs	0.68	0.71	0.74	0.76	0.77

Source: AER analysis

7.5 Revisions

The AER proposes the following revisions to make the revised access arrangement proposal acceptable:

Revision 7.1: Make all necessary amendments to reflect the AER's final decision on the proposed opex allowances for the 2013–17 access arrangement period, as set out in Table 7.1.

8 Incentive mechanisms

Incentive mechanisms are an important tool to provide service providers continuous incentives to reduce costs and increase efficiency in the provision of pipeline services. Incentive mechanisms provide a financial reward (or penalty) for efficiency gains (or losses) achieved compared to expenditure benchmarks for the access arrangement period. Any rewards (or penalties) for efficiency gains (or losses) are added to the service provider's total revenue and carried forward for five years after the year in which the efficiency gain (or loss) is made. Five years corresponds to the length of the access arrangement period.

This attachment presents the AER's assessment of SP AusNet's proposed:

- carryovers from the operation of the incentive mechanism in the 2008–12 access arrangement period, namely the benefit sharing allowance
- incentive mechanism for the 2013–17 access arrangement period.

8.1 Final decision

8.1.1 Carryover from the 2008–12 access arrangement period

The AER does not approve SP AusNet's proposed carryover of $21.8 million (2012) from the 2008–12 access arrangement period because it was not calculated according to the efficiency carryover mechanism (ECM) in SP AusNet's current access arrangement, and therefore does not properly reflect increments resulting from the operation of the incentive mechanism.[582] The AER has calculated that SP AusNet accrued a total carryover of $19.3 million ($2012) during the 2008–12 access arrangement period (Table 8.1).

Table 8.1 AER final decision on SP AusNet carryover from the 2008–12 access arrangement period ($million, 2012)

	2013	2014	2015	2016	2017	Total
SP AusNet revised proposal	13.0	2.8	7.9	–2.0	–	21.8
AER final decision	12.8	2.6	5.5	–1.5	–	19.3
Difference	–0.3	–0.2	–2.5	0.5	–	–2.4

Source: AER analysis.

8.1.2 Incentive mechanism for the 2013–17 access arrangement period

The AER approves SP AusNet's revised proposal adopting the amendments required by the AER's draft decision with respect to the opex ECM to apply during the 2013–17 access arrangement period. However, the AER considers that the opex benchmarks should be updated for the purposes of the ECM to reflect the AER's benchmarks in Table 8.4.

The AER does not approve SP AusNet's proposed capex ECM. This is because it would not encourage efficiency in the provision of services by the service provider contrary to r 98(1). It would provide an incentive to overinvest in the network and would not act as an effective incentive that

582 NGR, Schedule 1, cl. 5(1)(a).

promoted economic efficiency contrary to the RPP.[583] For these reasons the AER also considers that it is not consistent with the national gas objective.[584] The AER does not propose to include any alternative capex incentive mechanism.

8.2 Revised proposal

8.2.1 Carryovers accrued in the 2008–12 access arrangement period

SP AusNet's revised proposal adopted the method used by the AER in its draft decision to calculate the carryover for opex and capex.[585] It proposed a total carryover of $21.7 million ($2012) from the operation of the ECM in the 2008–12 access arrangement period (Table 8.2).

Table 8.2 SP AusNet revised proposal calculation of carryovers accrued in the 2008–12 access arrangement period ($million, 2012)

	2013	2014	2015	2016	2017
Opex efficiency carryover	11.8	2.2	8.2	–1.4	–
Capex efficiency carryover	1.3	0.6	–0.3	–0.6	–
Total efficiency carryover	**13.0**	**2.8**	**7.9**	**–2.0**	**–**

Note: Totals may not add due to rounding.
Source: SP AusNet, *Revised access arrangement proposal, Chapter 7: Incentive arrangements*, 9 November 2012, p. 5.

8.2.2 Proposed incentive mechanism for the 2013–17 access arrangement period

SP AusNet's revised proposal adopted the amendments required by the AER's draft decision with respect to the opex ECM to apply during the 2013–17 access arrangement period. SP AusNet did not adopt the opex benchmarks outlined in table 7.51 of the AER's draft decision[586] and replaced them with its proposed opex for the 2013–17 access arrangement period.[587]

SP AusNet did not adopt the AER's draft decision to remove the capex ECM and proposed to retain the mechanism that applied during the 2008–12 access arrangement period.[588]

8.3 Assessment approach

The AER used the same assessment approach as for its draft decision. The AER's assessment approach for incentive mechanisms is set out in attachment seven of the draft decision.[589]

The Victorian Minister for Energy and Resources' written submission on the draft decision and revised proposals commented on the proposed incentive mechanisms. The AER took this submission into account in forming its final decision on SP AusNet's proposed incentive mechanisms.

583 NGL, s. 24(6); NGL, s. 24(3); r. 98(3).
584 NGR, r.100(a); NGL, s. 23.
585 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, pp. 3–4.
586 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, p. 164.
587 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, pp. 5–6.
588 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, p. 2.
589 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, pp. 166–167.

8.4 Reasons for decision

8.4.1 Carryover from the 2008–12 access arrangement period

The AER considers SP AusNet did not calculate the carryover for opex and capex in accordance with the ECM in its current access arrangement. SP AusNet adopted the method used by the AER in the draft decision to calculate the carryover for opex and capex. However, it did not accept the carryover amount. Specifically, SP AusNet updated the calculation of its carryover amount to reflect revised:

- base year actual opex
- output growth estimates
- capital expenditure.[590]

The AER is satisfied the movement in provisions relating to unaccounted for gas should be added back to actual opex to ensure it is not removed twice when unaccounted for gas expenses and movements in provisions are removed (attachment 7). However, SP AusNet only made this adjustment to expenditure in the base year (2011). This adjustment should be made for each year of the access arrangement period. Further, in adjusting 2011 actual opex SP AusNet failed to remove licence fee expenditure, as it did for all other years. Licence fees should be removed from 2011 actual opex consistent with other years. The AER recalculated the opex carryover to reflect these adjustments.

The AER is satisfied the adjustments made to the output growth estimate and capital expenditure are consistent with the ECM in SP AusNet's current access arrangement. However, the AER does not accept the weighted average cost of capital proposed by SP AusNet in its revised proposal. Consequently the AER is not satisfied the capex carryover proposed by SP AusNet properly reflects the operation of the ECM set out in its access arrangement. The AER recalculated the capex carryover to reflect the weighted average cost of capital determined in this final decision.

Table 8.3 AER decision on SP AusNet carryover from the 2008–12 access arrangement period ($million, 2012)

	2013	2014	2015	2016	2017	Total
Opex efficiency carryover	11.7	2.1	5.7	–0.9	–	18.6
Capex efficiency carryover	1.0	0.5	–0.2	–0.5	–	0.7
Total efficiency carryover	**12.8**	**2.6**	**5.5**	**–1.5**	**–**	**19.3**

Note: Totals may not add due to rounding.
Source: AER analysis

8.4.2 Incentive mechanism for the 2013–17 access arrangement period

Opex incentive mechanism

The AER approves SP AusNet's revised proposal adopting the amendments required by the AER's draft decision with respect to the opex ECM to apply during the 2013–17 access arrangement period.

[590] SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, pp. 3–4.

The AER does not accept SP AusNet's proposed opex for the 2013–17 access arrangement period (attachment 6). The AER therefore requires SP AusNet to update the opex benchmarks for the purposes of the ECM in its proposed access arrangement with the AER's benchmarks in Table 8.4.

Table 8.4 Forecast operating expenditure for the purposes of the ECM in the 2013–17 access arrangement

	2011	2012	2013	2014	2015	2016	2017
Forecast opex	43.0	44.5	47.8	49.9	50.7	51.7	52.7

Note: Excludes debt raising costs.
Source: AER analysis.

Capex incentive mechanism

The AER does not approve SP AusNet's revised proposal to retain the current capex ECM for the 2013–17 access arrangement period. As noted in its draft decision,[591] the AER considers the current capex incentive mechanism provides inappropriate incentives to inefficiently defer capex that is not volume adjusted. Further, the lack of an adequate service standard incentive as a counter balance leads to the potential for under-investment and over-utilisation of the pipeline. This is inconsistent with an incentive mechanism that encourages efficiency in the provision of services by the service provider,[592] and the RPP.[593]

Deferral of capex

The AER noted in its draft decision that cumulative efficiency carryover schemes applied to capex can deliver incentives to defer capex to a later access arrangement period even when it is not efficient to do so.[594] These comments related only to those schemes that are not volume adjusted. SP AusNet correctly notes that the benchmark adjustment mechanism in the capex incentive scheme removes the incentive to defer capex inefficiently.[595]

As noted by SP AusNet, over 80 per cent of SP AusNet's total forecast capex relates to volume-driven capex. The proposed capex ECM adjusts volume-driven capex for deferred volumes.[596] There remains an incentive, however, to inefficiently defer the remaining capex that is not volume-driven. Approximately half of this remaining capex relates to IT expenditure. SP AusNet stated factors outside the direct control of the gas business largely determine the timing of IT expenditure.[597] If this is the case, the AER considers it is inappropriate for network service providers to be rewarded or penalised for efficiency gains or losses outside their control. For these two reasons the AER considers applying the proposed capex ECM to capex that is not volume adjusted would be inconsistent with the RPP.[598]

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591 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012,, pp. 173–174.
592 NGR, r. 98(1).
593 NGR, r. 98(3); NGL, s. 24.
594 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 173.
595 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, p. 6.
596 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, p. 7.
597 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, p. 8.
598 NGR, r. 98(3); NGL, s. 24(3).

AER rule change proposal

SP AusNet considered the AER's draft decision was inconsistent with the AER's National Electricity Rules rule change proposal regarding capex incentives.[599]

SP AusNet noted areas of weakness in the current electricity regime raised by the AER's in its Rule change proposal:

1. the regulator's inability to remove historic capex from the asset base on inefficiency grounds

2. the low powered and distorted incentives provided by the capex efficiency scheme.

The AER considers these weaknesses are not directly applicable to gas networks. The gas framework has stronger inherent capex incentives than the electricity framework at the time of the rule change proposal, especially given the NGR allow for a review of the efficiency of a service providers' past capex. Further, the service standard incentives under the gas regime are less prescriptive than under the electricity regime.[600] The AER therefore considers applying additional capex incentives through the operation of the ECM may result in inappropriate incentives for the service provider to inefficiently reduce capex at the expense of maintaining or improving service standards.

The Victorian Minister for Energy and Resources noted the concerns raised by AER with the incentive arrangements that applied to capex previously. Given these concerns, the Minister considered a capex incentive mechanism should not be included in an access arrangement until the completion of the AER's review of expenditure incentives has been completed and guidelines released.[601] This work will be completed by the end of 2013. The AER notes its assessment is based on the current NGR and the information before it. The forthcoming review has not been a factor in its consideration of whether to apply a capex incentive mechanism or not in this final decision.

Distorted incentives

SP AusNet considered the removal of the capex ECM would introduce a distortion in capex efficiency incentives. In particular, it considered the AER's draft decision would replace a mechanism that provides continuous incentives with one that provides incentives that decline materially from the start of the access arrangement period to the end.[602] The AER recognises that a continuous incentive to derive efficiencies is preferable to declining incentives.

While the AER recognises that the scheme proposed by SP AusNet does provide a continuous incentive to reduce capex unit rates, it does not provide a continuous incentive to reduce associated volumes. Consequently the capex ECM proposed does not provide a constant incentive to reduce capex. This is consistent with the trend in SP AusNet's capex over the 2008–12 access arrangement period, where efficiency gains have declined as the period progressed when calculated using unadjusted capex benchmarks (Table 8.5).

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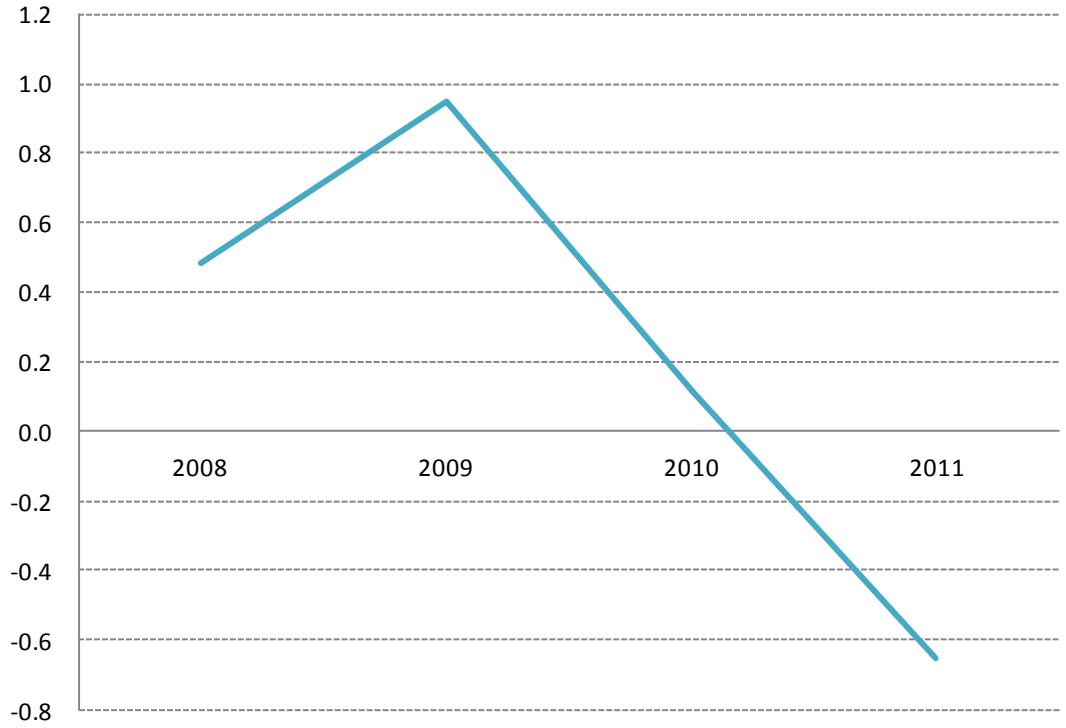
599 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, p. 8.

600 In the electricity framework there are a number of service standard incentive schemes which are not in the gas framework: service targe performance incentive scheme (STPIS), guaranteed service levels (GSL), demand management and embedded generation connection incentive scheme.

601 Hon. Michael O'Brian MP, Minister for Energy and Resources, Victorian gas access arrangement review—Victorian Government submission, 14 January 2013, p. 5.

602 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, p. 9.

Table 8.5 Unadjusted capex efficiency gains ($m, 2012)



Source: AER analysis

Further, the capex ECM proposed does not provide balanced incentives between the different capex categories. That is, SP AusNet would have an incentive to shift capex from unadjusted categories to volume-adjusted categories, thereby benefiting from an efficiency gain achieved for unadjusted capex while avoiding any equivalent penalty in volume-adjusted capex (as a result of the benchmark adjustment mechanism). In this way it has an incentive to overinvest up to the value of the carryover payment.[603] Therefore, the AER considers the proposed mechanism does not provide effective incentives to promote economic efficiency.[604]

Service standards

SP AusNet submitted that service standards on a reticulated gas network are closely related to safety. It considered any reduction in service standard performance could raise safety concerns and would be subject to investigation by Energy Safe Victoria. It also considered there was no evidence of its actual service performance declining over the current access arrangement period, during which the existing capex ECM has been in operation.[605]

The AER agrees safety standards will impact network service levels. However, the AER remains concerned the proposed capex incentive scheme may provide incentives to inefficiently reduce capex at the expense of maintaining or improving service levels. The AER also recognises there is no evidence of a significant decline in service standards over the current access arrangement period. The AER also considers the impacts of reduced capex would likely take a number of years to be seen in service levels. However, capex saving from reducing work volumes would likely have a greater impact on service levels than capex savings derived from reducing unit costs.

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603 NGR, r. 98(1) and (3); NGL, s. 24(6).
604 NGR, r. 98(1) and (3); NGL, s. 24(3).
605 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, p. 10.

Current performance

In its revised proposal, SP AusNet's stated the capex ECM has driven efficiencies.[606] The AER does not agree SP AusNet's performance in the 2008–12 access arrangement period supports this conclusion.

Carryover amounts calculated using unadjusted benchmarks provide a good indication of the effectiveness of the scheme. If the capex benchmarks were not volume adjusted SP AusNet would have accrued a carryover of only $0.13 million ($2012). The total unadjusted carryover can be disaggregated into:

- **Volume gains** of –$0.76 million ($2012). This is calculated from the difference between the adjusted carryover and the unadjusted carryover. This suggests SP AusNet undertook a greater volume of work than forecast. The capex ECM disregards these efficiency losses.
- **Unit rate gains** of $0.48 million ($2012). This is the volume adjusted carryover accrued in the volume adjusted capex categories. This suggests the ECM drove efficiency gains from SP AusNet reducing its unit costs.
- **Efficiency gains in unadjusted categories** of $0.42 ($2012). This is the carryover accrued in the categories not adjusted for actual volumes. This shows non-volume driven capex accounts for approximately 50 per cent of SP AusNet's carryover although it only accounts for approximately 20 per cent of total capex.

Thus, SP AusNet did realise efficiency gains from reducing unit costs under the capex ECM in the current access arrangement period. However, it cannot be assumed the 'efficiency gain' in the unadjusted categories reflect true efficiency gains due to the incentive to defer capex inefficiently in the absence of a volume adjustment. Further, SP AusNet stated a large portion of these unadjusted categories relate to expenditure over which SP AusNet has limited control, particularly IT expenditure.[607] Consequently, the AER considers those cost categories that are not volume adjusted should not be considered when considering whether the capex ECM has driven efficiencies. Disregarding those cost categories, the volume related efficiency losses in the current access arrangement period outweigh the unit rate efficiency gains. In other words, efficiency gains were not realised in the current access arrangement period in those cost categories that were volume adjusted. Further, volume related efficiency losses concurrent with gains in the adjusted categories is consistent with shifting between capex categories. Consequently, the AER is not satisfied the capex ECM has provided effective incentives in order to promote economic efficiency.[608]

Alternatively, the capex ECM could apply to only the volume adjusted capex categories. This would address some of these concerns. However, the AER does considers the administrative cost of such a scheme is not worth the small gain realised.

Conclusion

For the above reasons, the AER does not approve SP AusNet's proposal to include an ECM applying to capex in the 2013–17 access arrangement period. The AER considers such an incentive scheme

606 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, p. 10.
607 SP AusNet, *Revised access arrangement information, Chapter 7: Incentive arrangements*, 9 November 2012, p. 8.
608 NGR, r. 98(1) and (3); NGL, s. 24(3).

would not encourage efficiency in the provision of services as required under r 98(1) of the NGR, nor is it consistent with the RPP and the NGO.[609]

8.5 Revisions

The AER proposes the following revisions to make the Access arrangement proposal acceptable:

Revision 8.1: Amend the Access arrangement proposal and Access arrangement information as necessary to reflect the AER's final decision on carryover amounts from the 2008–12 access arrangement period as set out in Table 8.1 and Table 8.3.

Revision 8.2: Delete clauses 6.4(b) and (d) from the access arrangement proposal.

Revision 8.3: Replace the table on page 28 of part B of the access arrangement proposal with Table 8.4.

609 NGR, r. 98(3); NGL, s. 24(3); NGL, s. 24(6); NGL, s. 23.

9 Corporate income tax

When determining the total revenue for SP AusNet, the AER must estimate SP AusNet's cost of corporate income tax.[610] SP AusNet has adopted the post-tax framework to derive its revenue requirement for the 2013–17 access arrangement period.[611] Under the post-tax framework, a separate corporate income tax allowance is calculated as part of the building blocks assessment.

9.1 Final decision

The AER does not approve the forecast corporate income tax allowance of $39.0 million ($nominal)[612] for the 2013–17 access arrangement period in SP AusNet's revised proposal. This is because the AER's adjustments to other building block components have had a consequential effect on the forecast corporate income tax allowance. These are discussed in other attachments and include:

- forecast capex (attachment 4)
- forecast opex (attachment 7).

These adjustments result in an estimated cost of corporate income tax allowance of $23.7 million ($nominal) as shown in Table 9.1. This represents a reduction of $15.3 million ($nominal), or 39.3 per cent, from the corporate income tax allowance in SP AusNet's revised proposal. Based on the approach to modelling the cash flows in the post-tax revenue model (PTRM), the AER has derived an effective tax rate of 24.1 per cent for this final decision.

The AER approves the opening tax asset base of $491.9 million ($nominal) as at 1 January 2013 in SP AusNet's revised proposal.[613] SP AusNet's revised proposal adopted all of the AER's draft decision adjustments to its opening tax asset base, and provided an updated estimate for the 2012 tax additions used to roll forward the tax asset base. The AER has reviewed and approves the updated estimate for the 2012 tax additions.

The AER accepts the tax depreciation approach for group 7 tax assets and standard tax asset lives for group 7 tax assets in SP AusNet's revised proposal. The group 7 tax assets relate to forecast capex for the 2013–17 access arrangement period. In the draft decision, the AER accepted most of SP AusNet's proposed tax depreciation approaches and standard tax asset lives for group 7 tax assets (except for the 'Land & buildings' asset class).[614] Due to land being a non-depreciating asset, the AER split the 'Land & buildings' asset class into separate asset classes. Moreover, the AER assigned a standard tax asset life of 40 years to the 'Buildings' asset class and did not assign a standard tax asset life to the 'Land' asset class. SP AusNet's revised proposal adopted all of these draft decision adjustments.

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610 NGR, r. 76(c).
611 SP AusNet, *Revised Proposal – Post Tax Revenue Model (PTRM)*, November 2012.
612 All dollar amounts are in nominal dollar terms in this attachment because corporate income tax is an output of the post-tax revenue model (PTRM). The output of the PTRM such as the tax allowance and regulatory depreciation are expressed in nominal dollar terms, whereas the inputs of the PTRM such as forecast opex and capex are expressed in real dollar terms.
613 SP AusNet, *Revised Proposal PTRM*, November 2012.
614 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 180–184.

Table 9.1 AER's final decision on corporate income tax allowance for SP AusNet ($million, nominal)

	2013	2014	2015	2016	2017	Total
Tax payable	2.3	5.4	6.6	7.9	9.3	31.6
Less: value of imputation credits	0.6	1.3	1.7	2.0	2.3	7.9
Net corporate income tax allowance	1.7	4.0	5.0	6.0	7.0	23.7

Source: AER analysis.

9.2 Revised proposal

SP AusNet proposed a total corporate income tax allowance for the 2013–17 access arrangement period of $39.0 million ($nominal) as set out in Table 9.2.

In its draft decision, the AER accepted SP AusNet's approach to using a combination of the Essential Services Commission's (ESC) tax asset base roll forward model, and the AER's PTRM to calculate the corporate income tax allowance for the 2013–17 access arrangement period.[615] In estimating the corporate income tax allowance in its revised proposal, SP AusNet used:[616]

- an opening tax asset base of $491.9 million ($nominal) as at 1 January 2013
- an expected statutory income tax rate of 30 per cent per year
- a value for the assumed utilisation of imputation credits (gamma) of 0.25
- the standard tax asset lives and tax depreciation approaches set out in the AER's draft decision.

Table 9.2 Proposed corporate income tax allowance ($million, nominal)

	2013	2014	2015	2016	2017	Total
Tax payable	6.0	9.3	10.8	12.3	13.7	52.0
Less: value of imputation credits	1.5	2.3	2.7	3.1	3.4	13.0
Net corporate income tax allowance	4.5	7.0	8.1	9.2	10.3	39.0

Source: SP AusNet, *Revised proposal PTRM*, November 2012.

9.3 Assessment approach

The AER's assessment approach for the corporate income tax allowance is set out in its draft decision. See section 8.3, attachment 8 of the draft decision for a detailed explanation of the assessment approach.

There were no submissions that commented on SP AusNet's corporate income tax allowance.

615 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, p. 179.
616 SP AusNet, *Revised Proposal PTRM*, November 2012.

9.4 Reasons for decision

The AER's final decision on SP AusNet's forecast corporate income tax allowance for the 2013–17 access arrangement period is $23.7 million ($nominal). This represents a reduction of $15.1 million ($nominal) or 39.2 per cent from the corporate income tax allowance in SP AusNet's revised proposal.

The AER accepts SP AusNet's revised 2012 capex estimate (and revised 2012 tax additions), and consequently approves the opening tax asset base of $491.9 million ($nominal) as at 1 January 2013 in SP AusNet's revised proposal. The AER accepts the tax depreciation approaches to group 7 tax assets and the standard tax asset lives for group 7 tax assets in SP AusNet's revised proposal.[617]

In this final decision, the AER has adjusted other building block components that impact on forecast revenues. These adjustments will consequently affect the forecast corporate income tax allowance.

9.4.1 Opening tax asset base as at 1 January 2013

The AER approves the opening tax asset base of $491.9 million ($nominal) as at 1 January 2013 in SP AusNet's revised proposal.

In the draft decision, the AER accepted SP AusNet's proposed method to establish the opening tax asset base as at 1 January 2013.[618] However, the AER made a number of adjustments to the opening tax asset base, including proposed tax additions for 2007–12 and corrected some minor errors. SP AusNet's revised proposal adopted all of these adjustments, and provided an updated estimate for the 2012 tax additions used to roll forward the tax asset base to 1 January 2013. For the reasons outlined in attachment 3 regarding the opening capital base, the AER approves SP AusNet's updated capex estimate for 2012. Accordingly, the AER also approves SP AusNet's updated estimate of 2012 tax additions, which are the same as the updated 2012 capex estimate. The AER therefore approves the opening tax asset base as at 1 January 2013 in SP AusNet's revised proposal.

The AER's final decision on SP AusNet's tax asset base roll forward for the 2008–12 access arrangement period is set out in Table 9.3.

Table 9.3 AER's final decision on SP AusNet's tax asset base roll forward for the 2008–12 access arrangement period ($million, nominal)

	2008	2009	2010	2011	2012
Opening tax asset base	352.9	377.8	404.6	430.8	464.7
Tax additions	66.6	70.5	72.2	82.8	80.3
Less: tax depreciation	41.7	43.7	46.0	49.0	53.1
Closing tax asset base	377.8	404.6	430.8	464.7	491.9

Source: AER analysis.

617 Group 7 tax assets relate to forecast capex for the 2013–17 access arrangement period. Groups 1–6 relate to capex from previous periods.

618 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 179–181.

9.4.2 Tax depreciation approaches

The AER accepts the tax depreciation approaches to groups 1–7 tax assets in SP AusNet's revised proposal. These tax depreciation approaches reflect the revisions proposed by the AER in its draft decision.[619]

In the draft decision, the AER accepted SP AusNet's proposed tax depreciation approaches to groups 1–6 tax assets.[620] These approaches are consistent with the ESC's decision for the 2008–12 access arrangement period.[621] For group 7 tax assets for the 2013–17 access arrangement period, SP AusNet proposed to change the tax depreciation approaches from declining balance to straight-line. The AER accepted the proposed tax depreciation approaches (except for the proposed 'Land & buildings' asset class). This is because Australian taxation law allows both the declining balance method and straight-line method to be used to depreciate new tax additions (capex) for tax purposes.[622] Due to land being a non-depreciating asset, the AER split the 'Land & buildings' asset class into separate asset classes.

SP AusNet's revised proposal adopted all of the AER's draft decision adjustments.[623]

The AER's final decision on SP AusNet's tax depreciation approaches to group 7 tax assets is set out in Table 9.4.

Table 9.4 AER's final decision on SP AusNet's tax depreciation approaches to group 7 tax assets

Group 7 tax asset class	Tax depreciation approach (2013–17 tax additions)
Mains and services	Straight-line
Meters domestic	Straight-line
Meters industrial & commercial	Straight-line
Land [a]	n/a
Buildings [b]	Straight-line
Other assets	Straight-line
Repairs	Fully deductible

Source: AER analysis.
(a) This asset class is for any actual tax additions that may be incurred for 2013–17.
(b) This asset class is for depreciating the residual value from 'Land & buildings' as at 1 January 2013, as well as any actual tax additions that may be incurred during 2013–17.
n/a Not applicable.

9.4.3 Standard tax asset life

The AER approves the standard tax asset lives for group 7 tax assets in SP AusNet's revised proposal. These standard tax asset lives reflect the revisions proposed by the AER in its draft decision.[624]

619 SP AusNet, *Revised access arrangement proposal*, December 2013, p. 48.
620 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 182–183.
621 ESC, *SP AusNet GAAR 2008 revenue model further final decision*, 2008.
622 ITAA 1997, s. 40–65.
623 SP AusNet, *Revised access arrangement proposal*, December 2013, p. 48.

The AER's draft decision accepted most of SP AusNet's proposed standard tax asset lives for group 7 tax assets (except for the 'Land & buildings' asset class).[625] The AER considered that the standard tax asset lives SP AusNet proposed are consistent with Tax Ruling 2012/2 and the standard tax asset lives approved by the ESC in earlier access arrangement periods.[626] However, as a result of the AER's draft decision to split the 'Land & buildings' asset class into two separate asset classes to apply from 1 January 2013, the AER assigned a standard tax asset life of 40 years to the 'Buildings' asset class. The AER did not assign a standard tax asset life to the 'Land' asset class.[627]

SP AusNet's revised proposal adopted all the standard tax asset lives for group 7 tax assets as set out in the AER's draft decision.[628]

The AER's final decision on SP AusNet's standard tax asset lives for group 7 tax assets for the 2013–17 access arrangement period is set out in table 9.5.

Table 9.5 AER's final decision on SP AusNet's standard tax asset lives for group 7 tax assets

Group 7 tax asset class	Standard tax asset lives
Mains and services	20
Meters domestic	4
Meters industrial & commercial	15
Land	n/a
Buildings	40
Other assets	10
Repairs	Fully deductible [a]

Source: AER analysis.
n/a Not applicable.
(a) 'Repairs' is a deduction under s. 25-10 of the ITAA. For modelling purposes, the tax depreciation rate used to depreciate expenditure associated with repairs is 100 per cent.

9.4.4 Remaining tax asset life

SP AusNet did not propose any remaining tax asset lives in its original proposal as a result of the approach it took to calculating tax depreciation. The AER in its draft decision accepted that remaining tax asset lives were not necessary for calculating SP AusNet's tax depreciation.[629] The AER noted that SP AusNet's assets have been depreciated under separate tax groups reflecting the different historical tax depreciation approaches that have been applied.

624 SP AusNet, *Revised access arrangement proposal*, December 2013, p. 48.
625 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 133-135.
626 ESC, *SP AusNet GAAR 2008 revenue model further final decision*, 2008.
627 Because land is a non-depreciating asset, for modelling purposes, the AER used a term of 'n/a' as the standard tax asset life input for the 'Land' asset class to apply from 2013.
628 SP AusNet, *Revised access arrangement proposal*, December 2013, p. 48.
629 AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, p. 184.

9.4.5 Utilisation of imputation credits (gamma)

Consistent with the draft decision, the AER approves SP AusNet's proposed value for the utilisation of imputation credits (gamma) for this final decision.

In the draft decision, the AER accepted SP AusNet's proposal to adopt the value of 0.25 for gamma.[630] As part of the post-tax nominal framework, the value of gamma must be applied to calculate the net corporate income tax allowance.

9.5 Revisions

The AER proposes the following revisions to make the revised access arrangement proposal acceptable:

Revision 9.1: Make all necessary amendments to reflect the AER's final decision on the proposed corporate income tax allowance for the 2013–17 access arrangement period, as set out in table 9.1.

[630] AER, *Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017*, September 2012, pp. 184-185.

10 Demand

This attachment sets out the AER's assessment of the demand forecasts proposed by SP AusNet for the 2013–17 access arrangement period. Demand is an important input into the derivation of SP AusNet's reference tariffs. It also affects opex and capex linked to network growth.

10.1 Final decision

The AER does not accept SP AusNet's revised demand forecasts because the proposed demand forecasts do not represent the best forecasts possible in the circumstances.[631] While the AER accepts that the forecasting methodology is reasonable, it considers that:

- the projection of Effective Degree Day (EDD) that SP AusNet used to generate the weather–sensitive gas demand forecasts is not the best estimate in the circumstances. The AER proposes to adjust the proposed demand forecasts by using AEMO's projection of EDD.[632]
- there are technical errors in the demand forecast spreadsheet that affect the resulting forecasts. The AER proposes to adjust the proposed demand forecasts by correcting these technical errors.

The reasoning for the AER's final decision is set out below.

10.2 Revised proposal

SP AusNet did not adopt all the elements of the AER's draft decision on its proposed demand forecasts.[633] In particular, SP AusNet did not accept the AER's draft decision in regard to the use of AEMO's projection of EDD to generate the weather–sensitive gas demand forecasts.[634]

10.3 Assessment approach

The AER's approach to assessing SP AusNet's proposed demand forecasts is set out in Attachment 9 of the AER's draft decision.[635]

The AER did not receive submissions on SP AusNet's revised demand forecasts.

10.4 Reasons for decision

The AER considers that SP AusNet's revised demand forecasts do not represent the best forecasts possible in the circumstances.[636] This section sets out the reasons for the AER's decision.

In its draft decision, the AER determined that SP AusNet's forecasting methodology provided a reasonable basis for making the demand forecast.[637] However, in regard to the application of that methodology, the AER required amendments to certain input variables to make the access arrangement acceptable. Specifically, the AER requested SP AusNet to:

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631 NGR, r. 74(2).
632 AEMO, Review of weather standards for gas forecasting Part 1 – Victorian EDD review, April 2012.
633 SP AusNet, Revised access arrangement proposal, RAAP Chapter 1, Demand forecasts, 9 November 2012.
634 SP AusNet, Revised access arrangement proposal, RAAP Chapter 1, Demand forecasts, 9 November 2012, p. 4.
635 AER, Access arrangement draft decision SPI Networks (gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, p.186–187.
636 NGR, r. 74(2).
637 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, Part 2, September 2012, p. 191.

- use AEMO's EDD standard as a basis to forecast weather–sensitive gas demand forecasts
- update the population data and gas demand forecasts in line with new *Victoria in Future 2012* information released by the Victorian Department of Planning and Community Development (DPCD) subsequent to SP AusNet lodging its access arrangement proposal.

Each of these issues is discussed below.

10.4.1 Normal Weather – the choice of EDD inputs

SP AusNet submitted that the AER's draft decision and the AER's consultant report from ACIL Tasman appear to reflect a misunderstanding about how the CSIRO EDD forecast was utilised in SP AusNet's demand forecasting model.[638] It added that both the AER draft decision and ACIL Tasman's report seem to indicate that the AER and ACIL Tasman believe the 'weather normalisation' conducted by SP AusNet's consultant (CIE) used CSIRO's forecast EDD for 2005 to 2010 rather than the actual EDDs for those years.[639]

The AER has reviewed the weather normalisation conducted by SP AusNet's consultant CIE and it is satisfied that CIE completed its historical analysis of the weather impacts on gas demand using actual EDD and gas consumption data for the years 2005 to 2010.[640] The AER agrees with SP AusNet that the use of a forecast of future 'normal' weather conditions measured in terms of EDD is not to be confused with the analysis that was undertaken of historical gas consumption and weather conditions to determine the effects of the weather on gas consumption.

However, the AER is not satisfied with SP AusNet's choice of EDD inputs to forecast future 'normal' weather conditions. SP AusNet proposed to generate the weather–sensitive gas demand forecasts by applying a forecast of EDD for the years 2012 to 2017 sourced from a 2012 CSIRO report.[641] This forecast of EDD is a brief update of an earlier forecast prepared by the CSIRO in a 2007 report.[642] In its 2012 report, the CSIRO provided four scenarios of EDD trend between 2006 and 2017 from which SP AusNet selected the average greenhouse warming scenario to generate the proposed weather–sensitive gas demand forecasts.[643]

The CSIRO scenarios are all projected from a common base value of EDD in 2006 and this base value was not updated in the 2012 report.[644] In other words, in its 2012 report, the CSIRO did not re-estimate the baseline EDD using actual EDD between 2007 and 2011. It simply extrapolated the scenarios from the 2006 baseline EDD as in the 2007 report.[645] This reasoning is consistent with the analysis in ACIL Tasman's report to the AER.[646] This report presents a comparison of CSIRO EDD projection and AEMO EDD trended values.

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638 SP AusNet, Revised access arrangement proposal, RAAP Chapter 1, Demand forecasts, 9 November 2012, p. 5.
639 SP AusNet, Revised access arrangement proposal, RAAP Chapter 1, Demand forecasts, 9 November 2012, p. 5.
640 SP AusNet, Revised access arrangement proposal, RAAP, Appendix 1.A, 9 November 2012.
641 SP AusNet, Access arrangement information, 30 March 2012, Appendix 4A: Demand forecasting p.2; and Appendix 4B: CSIRO – Projected Changes in Temperature and Heating Degree-days for Melbourne 2012–2017.
642 SP AusNet, Access arrangement information, 30 March 2012 Appendix 4C: CSIRO – Projected Changes in Temperature and Heating Degree-days for Melbourne 2008–2012.
643 SP AusNet, Access arrangement information, 30 March 2012 Appendix 4B: CSIRO – Projected Changes in Temperature and Heating Degree-days for Melbourne 2012-2017, p. 7.
644 SP AusNet, Access arrangement information, 30 March 2012 Appendix 4B: CSIRO – Projected Changes in Temperature and Heating Degree-days for Melbourne 2012-2017, p. 6.
645 SP AusNet, Access arrangement information, 30 March 2012 Appendix 4B: CSIRO – Projected Changes in Temperature and Heating Degree-days for Melbourne 2012–2017, p. 6.
646 ACIL Tasman, Review of demand forecast for SP AusNet, 9 July 2012, pp. 26–30.

The AEMO's EDD projection referred to in the AER's draft decision was based on fitting a regression line to actual data from 1970 to 2011 and establishing a baseline EDD of 1309 in 2012.[647] Similarly, the CSIRO EDD projection was based on fitting a regression line to data from 1950 to 2011, of which data points from 2007 are a projection.[648] The CSIRO's projection of average greenhouse warming scenario, which SP AusNet selected, establishes a baseline EDD of 1278 in 2012 (31 EDD lower than AEMO's baseline for 2012). SP AusNet has acknowledged this difference in its revised proposal.[649] This outcome shows that by choosing to use the baseline EDD projected by the CSIRO to generate the proposed weather–sensitive gas demand forecasts, SP AusNet implicitly introduced a downward bias in the resulting forecasts. On this basis, the AER considers that SP AusNet's revised demand forecasts do not represent the best estimates possible in the circumstances.[650]

The AER considers that the AEMO's projection is the best available estimate because it is based on an up-to-date baseline value of EDD in 2012, and exhibits a year–on–year trend which is consistent with past trends.[651]

SP AusNet submitted that the CSIRO had addressed the issue of forecast bias caused by not including actual data from 2007 to 2010 in its analysis. In particular, the CSIRO stated that:

> a more thorough study which fully employed observations for the intervening years 2007 to 2010 ... would not lead to estimates significantly different from those provided here. This is because the additional data has little impact on the observed long term warming trend in Melbourne. [652]

The AER considers that this statement is relevant in a context in which the CSIRO is presenting a wide range of outcomes from low, average and high greenhouse warming scenarios, and in the context of the analysis of long–term warming trends from 1950 to the present. However, under the NGR, SP AusNet's estimate or forecast must represent the best possible forecast or estimate of demand for the next 5 years, and to this end, the forecast of EDD should be based on the most recently available data. In its 2007 report, the CSIRO employed a regression analysis on the latest available EDD data from 1970 to 2005 to establish a baseline 2006 EDD value for the subsequent scenario projections.[653] The AER considers that an updated analysis should employ the latest available data up to 2011 to generate the best possible estimate of the baseline EDD for 2012. The AEMO analysis provides this estimate of the baseline EDD for 2012.

To make the revised access arrangement proposal acceptable, the AER proposes that SP AusNet use the AEMO projection of EDD from 2012 to 2016 (extrapolated to 2017) to generate its weather–sensitive gas demand forecasts.

10.4.2 Updated population data – residential customer numbers

SP AusNet adopted the AER's draft decision to revise its proposed customer numbers in line with updated growth rate estimates of new dwellings published in 2012 by the Victorian Department of Planning and Community Development. SP AusNet stated that it accepts the inclusion of the updated

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647 AEMO, Review of weather standards for gas forecasting Part 1 – Victorian EDD review, April 2012.
648 See tables E3 of the CSIRO's 2007 report and table 3 (Annual), p. 14 of the 2012 CSIRO report.
649 SP AusNet, Revised access arrangement proposal, RAAP Chapter 1, Demand forecasts, 9 November 2012, p. 8.
650 NGR, r. 74(2).
651 ACIL Tasman's report shows that the rate of decline in EDDs since 1970 observed by AEMO has been close to that in CSIRO's medium agw projection at around 7.8 EDD/year. For more details, refer to ACIL Tasman, Review of demand forecast for SP AusNet, 9 July 2012, pp.29–30.
652 SP AusNet, Access arrangement information, 30 March 2012 Appendix 4B: Projected Changes in Temperature and Heating Degree-days for Melbourne 2012-2017 (CSIRO), p. 5.
653 SP AusNet, Access arrangement information, 30 March 2012 Appendix 4C: CSIRO – Projected Changes in Temperature and Heating Degree-days for Melbourne 2008–2012, section 5.4, p. 23.

population data and forecasts in the DPCD's publication *Victoria in Future 2012*.[654] The AER reviewed SP AusNet's revised demand forecast model and it is satisfied that this revised model incorporates the updated growth rate estimates of new dwellings.

10.4.3 Other issues—Technical corrections to SP AusNet's demand forecast model

The AER identified technical issues in its review of the revised demand forecast model proposed by SP AusNet. These are outlined below.

Adjustment to the average standing gas offer price for residential customers

In its assumptions for gas price effects, SP AusNet used the 2009–10 average standing offer price for residential customers of three regions (Central 1, Central 2 and West) to determine the proportion of distribution gas prices as a share of final prices. This average standing offer price was sourced from the Victorian Essential Services Commission's (ESC) 2009–10 report on gas pricing (Energy Retailers Comparative Performance Report—Pricing). The AER sought clarification from SP AusNet as to whether the average standing offer in the proposed revised forecast model excluded the Goods and Services Tax (GST).[655] In response, SP AusNet's consultant CIE stated that the ESC report is not clear about whether GST is included in or excluded from the standing offer prices.[656] CIE also submitted that the standing offer prices published by the ESC *would* probably be inclusive of GST.[657]

The AER reviewed the average standing offer price used by SP AusNet in the proposed revised forecast model to check whether it aligns with that published in the 2009–10 ESC report and whether it excludes GST. The AER agrees with CIE that the 2009–10 ESC report is not clear on whether GST is included in or excluded from the standing offer prices.[658] The AER subsequently obtained confirmation from the ESC that all pricing data in its 2009–2010 Energy Retailers Comparative Performance Report is GST inclusive.[659]

The AER considers that the standing gas offer prices used to forecast gas demand over the 2013–17 access arrangement period should exclude GST. This is because the inclusion of GST, which is passed on to customers at the retailer level, introduces an error in the demand forecasts—resulting in forecasts that do not represent the best forecasts possible in the circumstances.[660] Accordingly, the AER has adjusted the proposed demand forecasts to remove the GST component from the average standing offer price used in SP AusNet's revised demand forecast model.

Adjustment to missing data

In reviewing the revised demand forecast model, the AER identified two empty cells in the spreadsheet that it considers should not be empty. By leaving these cells empty, SP AusNet effectively introduced an error in the demand forecasts—resulting in forecasts that do not represent the best forecasts possible in the circumstances.[661]

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654 SP AusNet, Revised access arrangement proposal, RAAP Chapter 1, Demand forecasts, 9 November 2012, p. 5.
655 AER, AER information request to SP AusNet FD6a, 13 December 2012.
656 SP AusNet, Response to the AER Information request to SP AusNet FD6a of 13 December 2012, 19 December 2012.
657 SP AusNet, Response to the AER Information request to SP AusNet FD6a of 13 December 2012, 19 December 2012.
658 SP AusNet, SP AusNet response to the AER Information request to SP AusNet FD6a of 13 December 2012, 19 December 2012.
659 ESC, email to the AER on Energy Retailers comparative performance report—Pricing 2009–10, 15 January 2013.
660 NGR, r. 74(2).
661 NGR, r. 74(2).

The AER sought clarification from SP AusNet as to whether these cells should be populated in line with the formula in the neighbouring cells.[662] In response, SP AusNet (through its consultant, CIE) stated that these cells should be populated by scrolling down the formula in the neighbouring cells.[663] Accordingly, the AER has adjusted the proposed demand forecasts by populating the two empty cells in line with SP AusNet's response.

10.4.4 Conclusion

For the above reasons, the AER considers that SP AusNet's revised demand forecasts do not represent the best forecasts possible in the circumstances.[664] Table 10.1 to Table 10.3 set out the AER's final decision on SP AusNet's demand forecasts for the 2013–17 access arrangement period.

Table 10.1 AER final decision on SP AusNet's demand forecasts tariff V 2013–17

	2013	2014	2015	2016	2017
Residential tariff V					
Customer numbers	607 990	623 030	638 550	654 495	668 355
Demand (TJ)	29 782	29 984	30 198	30 414	30 571
Non–residential tariff V					
Customer numbers	15 856	15 963	16 081	16 200	16 304
Demand (TJ)	5 774	5 821	5 839	5 833	5 833

Source: AER analysis.

Table 10.2 AER final decision on SP AusNet's demand forecasts tariff D 2013–17

	2013	2014	2015	2016	2017
Tariff D					
Customer numbers*	289	289	289	289	289
Demand—MHQ (GJ)	10 387	10 387	10 387	10 411	10 447

Source: AER analysis, *SP AusNet RIN.

Table 10.3 AER final decision on SP AusNet's demand forecasts tariff M 2013–17

	2013	2014	2015	2016	2017
Tariff M					
Customer numbers	9	9	9	9	9
Demand—MHQ (GJ)	187	187	187	187	188

Source: SP AusNet RIN.

662 AER, AER information request to SP AusNet FD6a, 13 December 2012.
663 SP AusNet, SP AusNet response to the AER Information request to SP AusNet FD6a of 13 December 2012, 19 December 2012.
664 NGR, r. 74(2).

10.4.5 Demand Risk Adjustment Factor

The AER's decision on SP AusNet's revised demand risk adjustment factor is outlined in Attachment 12 of this final decision.

10.5 Revisions

The AER proposes the following revisions to make the revised access arrangement proposal acceptable:

Revision 10.1: All amendments proposed in this final decision on demand forecast and as set out in Table 10.2 to Table 10.3 of this attachment.

11 Tariff setting

This attachment outlines the AER's assessment of the reference tariffs proposed by SP AusNet against the requirements of the NGR, specifically rr. 93 and 94. The AER's assessment takes into account the revenue and pricing principles, including ss. 24(2) and 24(5) of the NGL, and the NGO.

11.1 Final decision

The AER does not approve the reference tariffs proposed by SP AusNet for the 2013–17 access arrangement period. Taking into account r. 93, the revenue and pricing principles and the NGO, the AER considers that SP AusNet must amend the quantum (level) of the proposed reference tariffs to reflect the forecast total revenue and demand forecasts approved in this final decision. The AER's final decision on SP AusNet's revised forecast total revenue and demand forecasts are set out in chapter 2 (Part 1) and attachment 10 (Part 2) of this final decision.

The AER approves the structure of reference tariffs in SP AusNet's revised access arrangement as it complies with the requirements under rr. 93 and 94 of the NGR.

The reasons for the AER's decision are set out in detail below.

11.2 Revised proposal

SP AusNet adopted the AER's draft decision in relation to the structure of its proposed tariffs for haulage reference services and ancillary reference services.[665] However, SP AusNet did not adopt the draft decision in relation to the level of its proposed reference tariffs. This is because SP AusNet did not accept other elements of the AER's draft decision, such as on opex, capex and the rate of return.

11.3 Assessment approach

The AER's approach to assessing SP AusNet's proposed reference tariffs is set out in Attachment 10 of the AER's draft decision.[666]

The AER did not receive submissions on SP AusNet's revised reference tariffs.

11.4 Reasons for decision

The AER does not approve the reference tariffs proposed by SP AusNet for the 2013–17 access arrangement period. Consistent with r. 93, the revenue and pricing principles and the NGO, the AER considers that the quantum of the proposed reference tariffs do not reflect the forecast total revenue approved in this final decision.

In its draft decision, the AER determined that the structure of SP AusNet's proposed tariffs for haulage reference services complies with the requirements of the NGR. The AER, however, did not accept SP AusNet's proposal to rationalise its ancillary reference services. In addition, the AER required SP AusNet to amend the level of its proposed reference tariffs to reflect the forecast total revenue and forecast demand approved in the draft decision.[667] SP AusNet, instead, revised its proposed

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665 SP AusNet, 2013–2017 Gas access arrangement review—SP AusNet's revised proposal, chapter 11 Reference tariffs, 9 November 2012, pp. 2–4.

666 AER, Access arrangement draft decision SP AusNet Gas Pty Ltd, 2013–17, Part 2 Attachments, September 2012, pp. 205–207.

667 AER, Access arrangement draft decision SPI Gas Pty Ltd, 2013–17, Part 2 Attachments, September 2012, p. 197.

reference tariffs in line with the forecast total revenue and demand forecasts in its revised access arrangement.[668]

In this final decision, the AER does not accept SP AusNet's revised forecast total revenue and demand forecasts (see chapter 2 (Part 1) and attachment 10 (Part 2) of this final decision).

SP AusNet adopted the AER's draft decision on the structure of reference tariffs for haulage reference services and ancillary reference services.[669] The AER has reviewed SP AusNet's application of the revised tariffs for haulage reference services and ancillary reference services and is satisfied that the structure complies with the requirements of the NGR as outlined in attachment 10 of the AER's draft decision.[670]

11.5 Revisions

The AER proposes the following revisions to make the revised access arrangement proposal acceptable:

Revision 11.1: All necessary amendments to reference tariffs to reflect the AER's final decision on forecast total revenue and on demand forecasts as set out in the revisions section of attachment 12 of this final decision.

668 SP AusNet did not accept the AER's draft decision on the forecast total revenue. It partly accepted the draft decision on demand. These issues are discussed in chapter 2 (Part 1) and Attachment 10 (Part 2) of this final decision.

669 SP AusNet, 2013–2017 Gas access arrangement review—SP AusNet's revised proposal, chapter 11 Reference tariffs, 9 November 2012, pp. 2–4.

670 AER, Access arrangement draft decision SP AusNet Gas Pty Ltd, 2013–17, Part 2 Attachments, September 2012, pp. 205–207.

12 Tariff variation mechanism

This attachment sets out the AER's consideration of SP AusNet's proposed reference tariff variation mechanism. The reference tariff variation mechanism:

- permits building block revenues to be recovered smoothly over the access arrangement period, subject to any differences between forecast and actual demand
- accounts for actual inflation
- accommodates other tariff adjustments that may be required, such as for an approved cost pass through event
- sets administrative procedures for the approval of any proposed changes to tariffs.

12.1 Final decision

The AER does not approve the tariff variation mechanism proposed by SP AusNet for the 2013–17 access arrangement period. The AER considers that some elements of SP AusNet's proposed tariff variation mechanism are not consistent with the NGL and the NGR or that there are preferable alternatives to some elements of SP AusNet's proposal. In particular, the AER considers that the following elements must be amended as set out in section 12.5 of this attachment:

- the initial reference tariffs
- the x factors
- certain aspects of the proposed tariff control formula , which include:
  - removal of demand true up from the adjustment factor
  - exclusion of Energy Safe Victoria (ESV) levy from the definition of licence fee
  - the timeframe for notifying the AER in respect of the reference tariff variation process
- the AER proposes amendments to the following cost pass through events:
  - the mains replacement event
- the process for approving cost pass through event adjustments
- the financial failure of a retailer event is to be deleted.

The reasons for the AER's decision are set out in detail below.

12.2 Revised proposal

In its revised proposal, SP AusNet adopted some elements of the AER's draft decision. These included the following: a reduction from five to two per cent for the rebalancing constraint and its application at the reference service level, the removal of the new connection process pass through

event and an adjustment formula to recover six months flat fees for ancillary reference services.[671] SP AusNet did not adopt other elements of the AER's proposed revisions. Instead, SP AusNet:[672]

- revised its initial reference tariffs in line with its revised access arrangement proposal rather than the AER's draft decision
- revised the x factors in line with its revised access arrangement proposal rather than the AER's draft decision
- maintained the financial failure of a retailer pass through event
- did not include a mains replacement pass through event
- proposed a new pass through event, a service standard event, which was not included in its original proposal
- proposed changes to the AER required pass through events – SP AusNet has included changes to the definitions of an insurance event and a national energy customer framework event
- retained its carbon tax tariff true up mechanism as initially proposed
- retained its demand risk adjustment factor as initially proposed
- proposed some changes to procedures for a relevant pass through event.
- retained its timeframes for notifying the AER in respect of the reference tariff variation process as initially proposed
    - 35 business days to notify the AER in respect of annual tariff variation
    - 30 business days for cost pass through mechanism.

12.3 Assessment approach

The AER's approach to assessing SP AusNet's proposed tariff variation mechanism is set out in attachment 11 of the AER's draft decision.[673]

The AER also took into account submissions received in relation to its draft decision in forming its final decision on SP AusNet's proposed tariff variation mechanism.[674] Where relevant the AER's consideration of these submissions is set out below in its reasons for the decision.

12.4 Reasons for decision

The AER does not approve SP AusNet's revised tariff variation mechanism for the 2013–2017 access arrangement period. The AER considers that some elements of SP AusNet's proposed tariff variation

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671 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 2.
672 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 2.
673 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, pp. 210–212.
674 Origin Energy Victoria Pty Ltd, Submission to the Victorian gas access arrangement review, 7 January 2013.

mechanism are not consistent with the NGL and the NGR or there are preferable alternatives to some elements of SP AusNet's proposal.[675]

This section sets out the reasons behind the AER's decision under the following headings:

- annual tariff variation mechanism
- cost pass through tariff variation mechanism
- procedures for oversight and approval of tariff variations.

12.4.1 Annual tariff variation mechanism

Revenue equalisation

In its draft decision, the AER determined that SP AusNet's proposed annual tariff variation formula complies in principle with r. 92(2) of the NGR.[676] However, the AER requested SP AusNet to amend the level of its proposed reference tariffs to reflect changes to forecast total revenue and demand forecasts.

SP AusNet did not amend its proposed level of reference tariffs in line with the AER's draft decision.[677] Rather, SP AusNet revised the level of its proposed reference tariffs in line with its revised access arrangement.[678]

The AER's final decision is that SP AusNet's revised annual tariff variation formula complies in principle with r. 92(2) of the NGR. However, the AER considers that the level of reference tariffs must be amended to reflect changes to the revised forecast total revenue and revised demand forecasts as shown in section 12.5. The changes to the revised forecast total revenue and revised demand forecasts are set out in chapter 2 (Part 1) and attachment 10 (Part 2) of this final decision, respectively.

Annual tariff variation formula

In its draft decision, the AER accepted the structure of SP AusNet's proposed formula for the annual variation of reference service tariffs.[679] However, the AER did not accept some elements of that formula, particularly:[680]

- the magnitude of the rebalancing constraint and the level at which it should apply
- the x factors
- the incorporation of the demand true up in the cost pass through adjustment factor.

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675 NGR, rules 92(2) and 97(3).
676 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, p. 213.
677 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 2.
678 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 2.
679 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, p. 213.
680 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, pp.213–226.

The rebalancing constraint

SP AusNet's revised access arrangement adopted the AER's draft decision on the level and magnitude of the rebalancing constraint.[681] SP AusNet revised the proposed rebalancing constraint to be two per cent and applied to the haulage reference level rather than at the components level as initially proposed.[682]

Origin Energy (Origin) in its submission supported the AER's draft decision not to accept SP AusNet's proposal to increase the rebalancing constraint from two to five per cent over the 2013–17 access arrangement period.[683] Origin stated that changes to the rebalancing constraint can have significant and unpredictable impacts on end prices, a risk that is faced primarily by the retailer[684]. The AER agrees with Origin.

The AER approves SP AusNet's revised rebalancing constraint of two per cent that will apply at a reference service level over the 2013–17 access arrangement period for the reasons set out in its draft decision.[685]

The x factors

In its revised proposal, SP AusNet did not adopt the AER's draft decision on x factors.[686] Specifically, SP AusNet amended the proposed x factors in line with its revised access arrangement, which did not accept certain elements of the AER's draft decision that impact the x factors (e.g. capex, opex and forecast total revenue).[687] In this final decision, the AER has not accepted these elements of SP AusNet's revised access arrangement that influence the x factors.

The AER proposes to amend the x factors in line with all the changes to the revised access arrangement proposed in this final decision.

Demand true up

In its access arrangement submission of March 2012, SP AusNet proposed a demand risk adjustment (true up) factor in the price control mechanism to mitigate the risk of a decline in gas demand arising from significant increases in the wholesale price of gas.[688] This factor applies only to Tariff V residential and commercial volumes. SP AusNet submitted that there was a significant asymmetric risk that wholesale gas prices will move to international parity because of a combination of an inter–connected market in East Australia and a rapid expansion of LNG exports in Queensland.[689]

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681 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 23-24.

682 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 23-24.

683 Origin Energy Victoria Pty Ltd, Submission to the Victorian gas access arrangement review, 7 January 2013, p. 2.

684 Origin Energy Victoria Pty Ltd, Submission to the Victorian gas access arrangement review, 7 January 2013, p. 2.

685 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, pp. 213–216.

686 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, pp. 210–212.

687 SP AusNet's revised access arrangement did not accept certain changes.

688 This risk relates to the incremental increase in wholesale gas price; that is the increase above the level allowed for in SP AusNet's proposed demand forecasts. For more details, see SP AusNet, Access arrangement information, 30 March 2012, p. 80.

689 SP AusNet, Access arrangement information, 30 March 2012, p. 80.

The AER's draft decision did not accept the proposed demand true up.[690] The AER considered that the impact of rising LNG export prices (if they occurred) on the Victorian wholesale price was likely to be delayed to beyond the 2013–2017 access arrangement period for a number of reasons. These reasons include rigidities in the wholesale contract market and the possibility of government policy responses.[691] In making its draft decision, the AER took into account the fact that no other gas distributor had proposed a similar risk mitigation mechanism, in accordance with r. 97(3)(d) of the NGR.

In its revised proposal, SP AusNet did not adopt the AER's draft decision on the basis that:

- the AER's decision is inconsistent with the NGL and the revenue and pricing principles (RPP). SP AusNet submitted that, under the AER's draft decision, SP AusNet would not be able to recover its efficient costs as required by s. 24 of the NGL if the risk eventuates
- the AER's analysis of the materiality of the likely outcomes in the competitive gas market is flawed
- the AER did not consider the consequential impact on the cost of equity.

The AER's assessment of SP AusNet's submission on each of these points is set out below.

Historically, SP AusNet has been subject to a price cap form of regulation. In its access arrangement proposal of March 2012, SP AusNet elected to maintain this approach for the 2013–17 access arrangement period in accordance with r. 97(2)(b). The choice of a price cap implies that SP AusNet bears a volume risk. In other words, an annual variation mechanism in the form of a weighted average price cap (WAPC) exposes SP AusNet to the risk of deviations between the actual demand and the forecast demand each year. However, SP AusNet has proposed to mitigate part of this risk associated with the increase in wholesale gas prices on the basis that the risk is asymmetric and significant in its consequences for SP AusNet.[692]

In addition to the reasons that the AER outlined in the draft decision for not accepting SP AusNet's proposal, the AER considers that:

- SP AusNet's proposal to mitigate volume risk is selective
- the risk of a significant fall in gas demand compared to forecast has not been demonstrated to be asymmetric and material
- SP AusNet is provided with a reasonable opportunity to recover its efficient costs.

The AER's reasons are set out below.

First, there are many factors that may cause gas demand to deviate from the approved forecast demand. These include wholesale gas prices, retail price competition, economic and population growth, housing activity, deviations in the weather from the forecast trends, carbon prices and changes in government policies. These factors can work in different directions, and against each other. There is no compelling evidence to suggest that the risk to demand from wholesale gas price

690 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, pp. 218–220.
691 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, pp. 218–220.
692 SP AusNet, Access arrangement information, 30 March 2012, p. 80.

rises is exceptionally large over the access arrangement period (compared to all the other factors at work) or likely to put downward pressure on gas demand. The AER accepts that it is possible to envisage extreme deviations in the wholesale gas price, but it is equally possible to envisage similar deviations in other factors, such as economic growth or government policy. The AER accepts that the application of SP AusNet's proposed demand true up is symmetric. However, the AER considers that it is selective to choose only one factor to mitigate demand risk and this has the potential to bias the likely outcomes.

Second, SP AusNet's proposed demand forecasts take into account the impact of a change in the wholesale gas price.[693] SP AusNet's consultant CIE stated that there is the potential for much sharper rises in wholesale prices than factored into the proposed demand forecasts.[694] This statement is based on the potential for wholesale gas prices in Eastern Australia to move to levels reflecting LNG export parity, which in turn points to recent experience of high gas prices in Western Australia. The AER's consultant ACIL Tasman outlined that the high gas prices that have prevailed in Western Australia for the past five years or so are related to supply and demand considerations rather than any automatic 'flow through' of LNG prices.[695] ACIL Tasman added that low wholesale gas prices prevailed in Western Australia for some 20 years notwithstanding linkages to LNG markets.[696] This supports the point that the AER made in its reasons for the draft decision.[697] The AER outlined that the flow through of wholesale gas price increases is unlikely to occur within the 2013–17 access arrangement period. The AER considers that there is a range of factors that could affect future wholesale gas prices. SP AusNet through its consultant CIE, acknowledged this fact by stating that there are a number of factors which may mitigate upward pressure on wholesale gas prices.[698]

Third, SP AusNet did not establish the materiality of the risk from wholesale gas price rises beyond the level accounted for in its proposed demand forecasts. SP AusNet through, its consultant CIE, stated that further analysis would be required to estimate the magnitude of any potential increase in the wholesale gas price, given the complexities of the market dynamics.[699] Based on the residential and commercial price elasticities estimated by SP AusNet, and the revenue shares of the residential and commercial markets, the AER estimates that a 25 per cent increase in the wholesale gas price (above the level accounted for) would cause a fall of one percent in residential demand and 5.8 per cent in the relatively small commercial demand. The revenue impact would be a fall of 1.3 per cent.[700] These deviations from demand forecasts are comparable to the deviations from the approved demand forecasts experienced by SP AusNet over the period 2007 to 2011. The average deviation over the period was –0.7% and showed a range of –7.8 per cent in 2007 to 3.8 per cent in 2010[701]. Therefore, although a movement in wholesale gas prices constitutes a potential risk to gas demand, it is comparable to other factors that have affected gas demand in the past. On this basis, the AER considers that the prospective risk from wholesale gas price rises beyond the level accounted for in SP AusNet's proposed demand forecasts is not materially different from deviations arising from other factors. The risk from wholesale gas price rises, therefore, does not warrant special treatment over the 2013–2017 access arrangement period.

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693 SP AusNet, Access arrangement proposal, Appendix 4A, 30 March 2012, p. 69.
694 SP AusNet, Access arrangement proposal, Appendix 4A, 30 March 2012, p.133.
695 ACIL Tasman, Review of demand forecast for SP AusNet—Victorian access arrangement review for the period 2013–2017, Report prepared for the AER, August 2012, p. 31.
696 ACIL Tasman, Review of demand forecast for SP AusNet—Victorian access arrangement review for the period 2013–2017, Report prepared for the AER, August 2012, p. 31.
697 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, p. 220.
698 SP AusNet, Access arrangement proposal, Appendix 4A, 30 March 2012, p.136.
699 SP AusNet, Access arrangement proposal, Appendix 4A, 30 March 2012, p.136.
700 The AER provided a confidential Attachment for its calculations.
701 SP AusNet, Access arrangement information, 30 March 2012, p. 76, Table 4.5.

Fourth, the price cap framework under which SP AusNet has elected to operate is designed to provide network service providers a reasonable opportunity to recover their efficient costs as required by s. 24(2) of the NGL. The price cap framework is coupled with a rebalancing constraint and cost pass through provision to ensure that SP AusNet is provided with a reasonable opportunity to recover efficient costs. SP AusNet has elected to continue with the WAPC as opposed to a revenue cap (under r.97(2)(a)), which would insulate SP AusNet from potential volume risk.

Fifth, SP AusNet has not demonstrated that a significant and material asymmetric risk exists in the context of all the factors that can affect demand over the 2013–2017 access arrangement period.

In addition, no other gas distributor has proposed a similar risk mitigation mechanism. The AER must have regard to the desirability of consistency between regulatory arrangements for similar services.[702] The AER considers that it is not desirable to treat SP AusNet differently on this matter relative to the other distribution businesses. On this basis, the AER does not approve SP AusNet's revised proposal to include a demand risk adjustment factor in the price control mechanism.

The AER considers that demand forecasts approved in this final decision are the best estimates in the circumstances and affords SP AusNet a reasonable opportunity to recover its efficient costs, as required by s. 24(2) of the NGL.

SP AusNet submitted that the AER's analysis of the probability and consequences of the prospective increases in wholesale gas prices to support its draft decision is flawed.[703] The AER has provided additional reasons for its decision not to accept the proposed demand true up in this final decision.

SP AusNet submitted that if the AER does not approve its proposed demand true up, it must accept SP AusNet's proposed demand forecasts.[704] In regard to demand forecasts, SP AusNet stated that as the distribution business with the highest forecast growth in the 2013–17 access arrangement period, it is potentially the most susceptible to negative impacts from a rapid rise in gas prices.[705]

The AER acknowledges that wholesale gas prices impact the demand for gas. However, after its review of information submitted by SP AusNet, the AER considers that SP AusNet's demand forecasts reasonably account for the impact of wholesale gas prices by incorporating the analysis of the Australian Treasury on gas price forecasts.[706] In this final decision, the AER has accepted that the forecast methodology is arrived at on a reasonable basis. However, the AER considers that some input parameters used to apply the proposed forecast methodology resulted in demand forecasts that are not the best estimates possible in the circumstances. The AER's decision on demand forecasts is set out attachment 10 of this final decision.

For all the above reasons, the AER does not approve SP AusNet's revised proposal to incorporate a demand true up in the cost pass through adjustment factor of the tariff variation formula for haulage reference services.

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702 NGR, r. 97(3)(d).
703 SP AusNet, Revised access arrangement proposal, RAAP Chapter 1, Demand, 9 November 2012, p. 14.
704 SP AusNet, Revised access arrangement proposal, RAAP Chapter 1, Demand, 9 November 2012, p. 16.
705 SP AusNet, Revised access arrangement proposal, RAAP Chapter 1, Demand, 9 November 2012, p. 17.
706 Australian Treasury Strong Growth, Low Pollution—Modelling a Carbon Price; July 2011; Chart B6: Domestic Australian gas prices.

Carbon tax tariff true up

In its access arrangement submission of March 2012, SP AusNet proposed to recover its carbon tax costs for the 2013–17 access arrangement period by:

- including an opex allowance made up of the costs of administering the carbon tax scheme[707]
- setting a separate carbon tax tariff intended to recover its carbon tax liability costs with a true up mechanism each year.[708]

The proposed true up mechanism is in effect a reconciliation mechanism to ensure that SP AusNet carbon costs are recovered with no scope for windfall gain or loss.[709] It incorporates two steps:

- an adjustment in the regulatory year after carbon costs are incurred
- another adjustment in the second year after carbon costs are incurred.[710]

As proposed by SP AusNet, the first true up would be undertaken using largely estimated carbon costs. The second proposed true up would be undertaken using actual carbon costs. The second proposed true up would only be necessary because the first would be undertaken using estimated costs. SP AusNet's proposed true up mechanism accounts for the time value of money, including CPI and nominal WACC adjustment.[711]

In its draft decision:

- the AER accepted the true up concept to recover carbon costs. However, the AER it did not accept the proposed two–step true up mechanism and required SP AusNet to amend its proposal by incorporating a single step true up mechanism.[712] The AER considered that under the carbon tax legislation, liable entities may not know their final actual carbon unit costs until up to eight months after the end of the regulatory year to which these costs relate. Because of this delay in actual data being available, the AER's single step true up mechanism would be implemented in the second regulatory year after the year in which carbon costs are incurred, thus reducing complexity.[713]
- The AER did not accept SP AusNet's incorporation of the time value of money in the proposed true up mechanism, which include CPI and nominal WACC adjustment.[714]

In its revised proposal, SP AusNet did not adopt the AER's draft decision on the carbon tax tariff true up mechanism. Specifically, SP AusNet did not adopt the AER's single stage true up on the basis that:[715]

- it increases complexity

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707 SP AusNet, Access arrangement information, 30 March 2012, p. 133.
708 SP AusNet, Access arrangement proposal: Part B, 30 March 2012, s. 3.7, pp. 18–20.
709 SP AusNet, Access arrangement information, 30 March 2012, p. 133 and pp. 228–229.
710 SP AusNet did not propose a carbon tax pass through event as part of the true up mechanism.
711 SP AusNet, Access arrangement information, 30 March 2012, p. 230.
712 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 218.
713 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 218.
714 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, pp. 237–238.
715 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and tariff variation mechanisms, 9 November 2012, pp. 24–25.

- variations in forecast versus actual liabilities and revenues may be significant—leading to additional price volatility
- it magnifies the cash flow risk to SP AusNet in relation to the forecasts of both carbon tax liabilities and revenues
- it excludes any allowance for the time value of money.

As part of its final decision process, the AER engaged with the Victorian gas distribution businesses regarding the design and implementation of the carbon tax tariff true up mechanism given the uncertainty surrounding the clean energy legislation. The AER also considered a policy change recently announced by the Australian government. The Australian government outlined its plan to remove the carbon price floor of $15 per tonne when the carbon trading scheme starts from 2015 and to link the Australian carbon market to the European Union carbon market.[716] Initially, the government intended this price floor to apply from 2015 to 2018, fixing a lower bound to price movements over that period. The removal of the price floor is likely to result in substantial carbon price volatility in the last two years of the access arrangement period. Such volatility could translate into larger variations in the difference between forecasts carbon costs and actual costs.

Given this change in policy and the resulting uncertainty for liable entities, the AER considers that the implementation of a single–stage true up mechanism lagged by two years is likely to result in outcomes that are not consistent with the NGO. If the difference between estimated carbon costs and actual costs is large, it implies that the true up would apply to a larger amount of money, leading to additional price volatility particularly in last two years of the access arrangement period,

For the above reasons, the AER's final decision is to approve the carbon tax tariff true up mechanism as proposed by SP AusNet for the 2013–17 access arrangement period.

The AER acknowledges that this approach is different from that of its final decision on carbon tax costs pass through decision for AllGas Energy and Envestra for its Queensland and South Australian distribution networks. The AER made its decision for these businesses prior to the change in Australian government policy.

Energy Safe Victoria levy

In its draft decision, the AER proposed that gas distribution businesses include an additional element in the annual tariff variation mechanism to recover the incremental amount of the Energy Safe Victoria (ESV) levy.[717] This is because during the draft decision process, the ESV was consulting on a proposal to change the level of gas industry levies that it charges to the Victorian gas distribution businesses.

SP AusNet submitted that it has revised the definition of a licence fee to include the ESV levy.[718] The AER has confirmed the incremental amount of the levy with the ESV. The AER considers that it is reasonable to account for this increase in the ESV levy as a step change in forecast opex rather than

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716 Department of Climate Change and energy Efficiency, Price floor for Australia's carbon pricing mechanism, www.climatechange.gov.au/government/submissions/closed-consultations/price-floor-carbon-pricing.aspx (accessed on 26 February 2013).

717 AER, Access arrangement draft decision SPI Networks (Gas) Pty Ltd, 2013–17, Part 2 Attachments, September 2012, p. 220.

718 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 18.

in the annual tariff variation mechanism as indicated in the draft decision. The AER decision on forecast opex is set out in attachment 7 of this final decision.

Control formula for ancillary services

Given the expected date of the AER's final decision on the 2013–17 access arrangement for the Victorian gas service providers, and taking r. 92(3) of the NGR into account, the AER's draft decision considered that the 2013 reference tariffs under the 2013–17 access arrangement should take effect from 1 July 2013 until 31 December 2013.

To account for this delay, in its draft decision the AER made the relevant revenue adjustment for haulage reference service tariffs via the revenue smoothing mechanism in the revenue model. However, for the 2013 ancillary reference service tariffs, the AER proposed that the relevant revenue adjustment be given effect via an additional element in the tariff adjustment formula as this approach is less complex than an adjustment through the PTRM.[719] Thus, SP AusNet was to include an additional element in its revised tariff adjustment formula for ancillary reference services.

SP AusNet adopted the AER's draft decision and included an additional element in its revised tariff adjustment formula for ancillary reference services to account for the six month delay.[720] The AER has reviewed SP AusNet's revised formula for ancillary reference services and it is satisfied that it correctly accounts for the six month delay.

12.4.2 Costs pass through mechanism

The AER does not accept SP AusNet's revised cost pass through mechanism. The reasons for the AER's final decision are set out below.

Financial failure of a retailer event

The AER does not approve SP AusNet's proposed financial failure of a retailer event. This proposed event would allow SP AusNet to pass through any loss of revenue where a Network User is subject to an insolvency event, which is broadly defined. The AER considers that to the extent that SP AusNet must mitigate any risks in the absence of such a pass through event, it can do so through establishing appropriate prudential requirements to guard against the risk of a retailer's insolvency.

The AER proposes to delete the financial failure of a retailer event to make SP AusNet's access arrangement acceptable.

In its draft decision the AER did not approve SP AusNet's proposed financial failure of a retailer event.[721] The AER considered this event was unnecessary and did not satisfy the assessment criteria set out by the AER.[722] The AER considered that the credit support requirements set out in clause 7.8 of Part C of SP AusNet's access arrangement proposal provided adequate protection against the risk of a retailer failing.[723]

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719 AER's email to SP AusNet in response to SP AusNet's email to the AER of 6 September 2012 – Follow up from draft decision briefing—Treatment of annual price adjustments for ancillary reference services and non reference services, sent on 25 September 2012.

720 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 30.

721 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 226.

722 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 221.

723 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 226.

In its revised proposal, SP AusNet submitted that the existing terms of its access arrangement only allow it to require credit support in limited circumstances.[724] SP AusNet submitted that it is therefore not in a position to mitigate the risk it faces. SP AusNet submitted that its credit support provisions were drafted on the basis that, ultimately, the service provider would be protected from the risk of retailer insolvency by the specific pass through event.[725]

SP AusNet further submitted that the event should be retained because 'SP AusNet is required to operate within the confines of its existing terms and conditions with retailers, which have been drafted within the context of the existing risk structure of the access arrangement.' Therefore, SP AusNet submitted, the removal of the event would 'significantly alter the risk structure...and SP AusNet will have no ability to mitigate this risk.' If SP AusNet were to seek to amend the credit support provisions, it submitted that 'this is likely to add further cost to retailers and, ultimately, customers—costs that are currently avoided thanks to the existence of the pass through event.' SP AusNet further submitted that it disagrees that lost revenue is not a cost that should be recovered and the NGR did not preclude the recovery of these types of costs.[726]

As a general point, the AER notes that each access arrangement decision may result in changes from previous access arrangements. Under the NGL and NGR, each decision by the AER is made following the application of the appropriate criteria and assessment of the proposal against the NGO. The AER further notes that SP AusNet's 2008–12 access arrangement was made under the Gas Code.

The AER in deciding whether a particular reference tariff variation mechanism is appropriate to a particular access arrangement must have regard to the regulatory arrangements applicable to the relevant reference services before the commencement of the proposed reference tariff variation mechanism.[727] The AER has therefore considered to what extent the removal of the event would 'significantly alter the risk structure' as submitted by SP AusNet.

The AER considers that SP AusNet has scope to negotiate adequate prudential requirements for its particular circumstances. This scope is sufficient to address the risk set out by SP AusNet. The AER considers that the removal of this pass through event will not 'significantly' increase the risk to SP AusNet. In particular, SP AusNet's prudential requirements in its terms and conditions recognise that for users with a high credit rating or for users with a guarantor, no undertaking can be required. This indicates that for those users the risks to SP AusNet are lower. Where there is a higher risk, SP AusNet can utilise its prudential requirements to address that risk.

With respect to the impact upon customers, the AER considered SP AusNet's comments in relation to the potential for an increase in costs to customers. However, as the pass through is drafted broadly so as to cover not only costs but also revenue, the AER considers it would not be in the interests of customers for this pass through to be included. This is because it is inconsistent with the requirement that a reference tariff variation mechanism may provide for variation of a reference tariff as a result of a cost pass through for a defined event.[728]

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724 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 10.
725 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 10.
726 Email from SP AusNet dated 4 March 2013.
727 NGR. 97(3)(c).
728 NGR. 97(1)(c).

The AER must also have regard to the desirability for consistency between regulatory arrangements.[729] The AER did not approve an analogous financial failure of a retailer event in its Victorian electricity distributor decision nor did it approve a similar pass through for Envestra's South Australian and Queensland gas businesses. In each of these decisions the AER considered that prudential obligations provided sufficient protection.[730] The AER considers that is it desirable to align SP AusNet's access arrangement with the outcome in these decisions. In relation to this, the AER notes that Envestra Albury and Envestra Victoria have not proposed such an event and the AER is not approving a similar event for Multinet as part of this current review.

In its revised proposal SP AusNet noted that the NECF credit support regime envisages a pass through provision for an analogous 'retailer insolvency event'.[731] In this, SP AusNet refers to the retailer insolvency event in NECF in r. 531 of Part 12 of the NGR. [732] Rule. 531 is yet to take effect in Victoria. Rule 531 defines a retailer insolvency event as occurring when an insolvency official has been appointed in respect of the retailer, and the distributor is not entitled to payment under the terms of any credit support.[733] When a retailer insolvency event occurs, a distributor may apply to the AER to vary one or more tariffs.[734] The distributor must propose and the AER must determine a retailer insolvency pass through amount that 'reflects the increase in costs of providing reference services that the distributor has incurred or is likely to incur until the end of the applicable access arrangement period'.[735]

This insolvency event will be introduced along with other reforms that establish credit support rules.[736] The AER therefore considers that the introduction of the insolvency event is part of a package of reforms made in consultation with retailers and distributors. As Envestra observed in its submission:

> Rule 515 of the NGR states that a distributor may only require a retailer to provide credit support in accordance with the credit rules. The credit support rules define the amount of credit support which Envestra can require retailers to provide. It is unlawful for Envestra to negotiate additional credit support to protect itself from loss of revenue following retailer insolvency. This is why the NGR includes rule 531, so that distributors can recover cost of lost revenue (ie bad debts) by way of a pass-through under rule 531.[737]

The AER acknowledges that these provisions will revise current prudential requirements that are in place now. However, these rules are yet to take effect. The AER considers that their expected implementation is not a basis for retaining this event in part because the credit support rules that will apply under NECF do not apply now.

In any case, the AER notes that SP AusNet's financial failure of a retailer event is not analogous to the retailer insolvency event in r. 531. The retailer insolvency event is triggered by the failure of a retailer to pay an amount to which the service provider is entitled and provides for the pass through of increased costs. SP AusNet's proposed financial failure of a retailer event provides for the pass through of revenue that it does not receive. The AER considers SP AusNet's proposed event is much broader than the retailer insolvency event in r. 531. This is because revenue and costs are not the same thing.

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729 NGR. 97(3)(d).
730 Victorian distribution determination final decision 2011–15, p. 791; Envestra Ltd Access arrangement proposal for the SA gas network 2011–16, p.127; Ltd Access arrangement proposal for the Queensland gas network 2011–16, p.114.
731 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 10.
732 R. 531 of National Gas (Retail Support) Amendment Rules 2012.
733 National Gas (National Energy Retail Law) Amendment Rules 2012, r. 531(4).
734 R. 531(1) of National Gas (Retail Support) Amendment Rules 2012.
735 R. 531 of National Gas (Retail Support) Amendment Rules 2012.
736 R. 515 531 of National Gas (Retail Support) Amendment Rules 2012.
737 Envestra, email dated 5 March 2013.

The AER considers that revenue that has accrued to a distributor but remains unpaid will be accounted for as a debt. The non recovery of or writing-off of a debt is a cost to a business. To the extent that revenue has accrued and is not recovered, it will be a cost (and thus, under r. 531 it is costs that will be recovered). However, the AER considers that revenue that is not received (and has not accrued) does not amount to a cost.

The AER's general view is that pass through events should be symmetric, such that users will benefit from unexpected or uncontrollable events that materially reduce the costs faced by a service provider. This was set out in the AER's draft decision.[738] This event is not symmetric and does not provide for the return of excess revenue.

The AER further notes that, 'insolvency event', as defined by SP AusNet in this pass through event, covers circumstances that are considerably broader than the appointment of an insolvency official. SP AusNet's definition of an insolvency event covers circumstances where a party to an agreement stops or suspends the conduct of all or a substantial part of its business. The AER considers that there could be any number of reasons for a retailer to cease its retail business, including sale of the business or a decision to cease competing in gas retail. These circumstances do not involve insolvency and SP AusNet would most likely have a cause of action for breach of contract. To permit SP AusNet to pass any loss of revenue on to consumers in this circumstance would act as a disincentive to it pursuing its legal rights.

The AER notes that SP AusNet also referred to an analogous event approved by the AER in Envestra (South Australia and Queensland)[739]—the network user failure event—to justify inclusion of its financial failure of a retailer event. The AER notes that it also proposes to approve a similar event for Envestra Victoria and Albury. SP AusNet's submission that these events are analogous is incorrect. These events are not analogous to this proposed financial failure of a retailer event, despite being similarly named. Instead, they are analogous to SP AusNet's declared retailer of last resort event. The AER's decision on SP AusNet's declared retailer of last resort event follows.

Declared retailer of last resort event

The AER approves SP AusNet's declared retailer of last resort. In its draft decision the AER approved a declared retailer of last resort event.[740]

In its revised proposal, SP AusNet has not made any amendments to the event as approved by the AER in its draft decision.[741]

Following the draft decision, the AER considered amending the event so that it would cease to apply upon the commencement of NECF in Victoria. The AER sought comments on this proposal from the distributors. Following an assessment of the distributors' responses, and the relevant provisions of the NECF, namely Part 6, Division 9 and r 531, the AER considers that it is appropriate for the Declared Retailer of Last Resort Event to continue to apply following the commencement of NECF in Victoria. The AER has reached this conclusion based on the following analysis.

When a gas retailer fails, a distributor could incur costs when customers of the failed retailer are transferred to the declared retailer of last resort (RoLR). This is the circumstance dealt with by

738 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 221.
739 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 10.
740 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 222.
741 SP AusNet, Revised access arrangement proposal, Part A, p. 16.

SP AusNet's proposed Declared Retailer of Last Resort Event. The AER approved an analogous event–Network User Failure Event–for Envestra's South Australian and Queensland businesses.

However, under NECF, once implemented through the National Energy Retail Law (South Australia) Act 2011 (Retail Law), it will be possible for a distributor to recover costs that it has incurred due to the occurrence of a RoLR event. Under the RoLR provisions of the Retail Law, upon application by a RoLR, the AER must make a RoLR cost recovery scheme determination (Part 6, Division 9).[742] This scheme is designed for the RoLR to recover its applicable RoLR scheme costs. As part of the RoLR cost recovery scheme determination, the AER must make a distributor payment determination that one or more distributors are to make payments towards the cost of the scheme.[743] A distributor payment determination allows the RoLR to recover its RoLR scheme costs through payments by the distributor.

Distributors are required to make payments to a RoLR in accordance with their liability under a distributor payment determination. Under s. 167(4)(b) of the Retail Law, such payments are approved cost pass throughs allowing variation of the distributor's reference tariffs.[744]

Moreover, as part of the NECF a new pass through event, a 'retailer insolvency event' is introduced under r. 531 of the National Gas (Retail Support) Amendment Rules 2010, as referred to above. This event broadly provides for the recovery of an amount 'that reflects the increase in the costs of providing reference services that the distributor has incurred and is likely to incur until the end of the applicable access arrangement'[745] due to a retailer's insolvency.

It is possible that other costs a distributor incurs in relation to a RoLR event, such as preparing for or responding to the event, may not be covered by r. 167 and r. 531. To the extent that a distributor's RoLR costs are not recoverable under either of the above mechanisms, the AER considers such costs may be recoverable under the distributors' revenue allowances and existing cost pass through provisions, subject to the materiality threshold.[746]

The AER sought comment from SP AusNet on the need for the RoLR event to cease once NECF commences.[747] SP AusNet responded that it could accept the removal of the RoLR event on commencement of NECF if it was made clear in the access arrangement that it was entitled to recover its material costs of a RoLR event under a Regulatory Change Event or a Service Standard Event.[748]This would ensure that it could recover any costs not covered by r. 167 of the NGR (or the AER would also submit, r. 531). SP AusNet submitted that such costs would include the costs of transferring customers following a RoLR event.[749] Multinet made a similar submission.[750] Envestra submitted that a RoLR type event would not constitute either a service standard event or regulatory change event and for this reason it was necessary to retain such an event post-NECF.[751]

The AER notes that disconnections, reconnections and meter reading are ancillary reference services under SP AusNet's access arrangement. As such, the costs of transferring a customer to a RoLR would ordinarily be recovered from the RoLR. If a RoLR event occurs under the NECF provisions,

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742 *National Energy Retail Law (South Australia) Act 2011*, s. 166.
743 *National Energy Retail Law (South Australia) Act 2011*, s. 167.
744 NERL. s. 167(4)(b).
745 NGR. 531(3).
746 AER, Aurora 2012–17 draft distribution determination, November 2011, p. 289.
747 AER, email dated 1 March 2013.
748 SP AusNet, email dated 4 March 2013.
749 SP AusNet, email dated 28 February 2013.
750 Multinet, email dated 28 February 2013.
751 Envestra, email dated 5 March 2013.

these costs may possibly be recovered via the r. 167 pass through. The AER also notes that the retailer insolvency event broadly covers costs associated with the insolvency of a retailer.

However, these provisions have not yet been implemented. Given this, the AER acknowledges that there is some uncertainty.

The AER cannot conclusively determine at this stage, in the absence of a specific cost pass through application, whether a distributor's RoLR costs that are not recovered under rr 167 or 531 will be recoverable under the existing cost pass through provisions.

Taking this uncertainty into account as a relevant factor, the AER considers that it is appropriate for the Designated Retailer of Last Resort Event to continue to apply for the duration of this access arrangement including for the period following the commencement of NECF in Victoria.[752]

Service standard event

SP AusNet's proposed service standard event operates to pass through costs arising from a legislative or administrative decision that varies the manner of providing or the nature or scope of reference services, or imposes or varies minimum service standards.

The AER approves SP AusNet's proposed service standard event.

In its revised proposal, SP AusNet proposed a new cost pass through event that was not part of its original proposal. The new cost pass through event is a service standard event.[753] SP AusNet submitted that the definition of a relevant tax in its current access arrangement includes costs associated with changes in service standards. SP AusNet submitted that by accepting the AER's proposed new definition of 'relevant tax' it should not lose the ability to pass through legitimate costs associated with changes to service standards. SP AusNet has therefore proposed the new service standards event.[754]

The AER considers that this event meets the criteria set out in the AER's draft decision.[755] That is, these are costs that SP AusNet would have no control over and it would not promote the efficient operation and use of gas services, if SP AusNet could not recover costs for services it had rendered. The AER notes that this event is consistent with an event approved for the other Victorian distributors.[756] Consistency is a relevant factor under r. 97(3)(d).

Insurance event

The insurance event operates to permit SP AusNet to pass through costs that exceed the level of coverage when an insured risk eventuates.

The AER approves SP AusNet's insurance event.

SP AusNet has largely adopted the AER's required definition of an insurance event. SP AusNet has made one amendment to that definition, in paragraph (a). The amendment applies the insurance event to multiple claims as well as a single claim.

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752 NGR. 97(3)(e).
753 SP AusNet, Revised access arrangement proposal, Part A, p. 32.
754 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 31.
755 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 221.
756 AER, Access arrangement final decision, Envestra; AER, Access arrangement final decision, Multinet.

The AER proposes the definition of an Insurance Cap Event that is the same as that proposed in its draft decision, except that paragraph (a) is amended to refer to 'claims' as well as a 'claim. In particular, as in the draft decision, the insurance cap event provides that:

- the policy limit is defined with reference to the forecast operating expenditure allowance for the 2013–17 access arrangement period, approved by the AER in its Final Decision. This is to address the risk that SP AusNet might under-insure by obtaining a level of insurance cover lower than that contemplated in the forecast operating expenditure allowance determined in the AER's access arrangement final decision, and then pass through any costs to consumers that exceed its insurance cap. In these circumstances, customers are effectively paying twice—for the premiums of an efficient level of insurance as reflected in the forecast operating expenditure allowance, and through the cost pass through mechanism for costs that should have otherwise been covered by that efficient level of insurance. As SP AusNet's base forecast operating expenditure allowance includes a component for insurance coverage, in acting efficiently and prudently in managing its risks, it is expected to take out an insurance policy that provides an efficient level of insurance coverage.

- an assessment of Multinet's decisions and actions in relation to the pass through event—including whether the event which was the subject of the relevant insurance claim was within SP AusNet's control—is relevant to the AER's decision whether or not to approve the Relevant Pass Through Event. For this reason, the pass through event includes an additional factor which the AER must consider when assessing whether to approve a proposed Relevant Pass Through Event. This factor would require the AER to consider the efficiency of SP AusNet 's decisions, actions and omissions in relation to the risk of a pass through event, including whether SP AusNet has taken action to mitigate the risk of the pass through event occurring or the magnitude of the costs of the event. This assessment is not limited to those actions that concern the taking out of an appropriate insurance policy to cover particular risks, but also extends to the actions taken by SP AusNet, or not taken, to mitigate the risk of the event which is the subject of the relevant insurance claim and which has resulted in the pass through event application being made. The AER will assess the extent to which this was within SP AusNet's control. The AER considers that this will incentivise SP AusNet to take mitigating action to reduce the likelihood of the risk of an Insurance Event eventuating and the extent of costs associated with the occurrence of this pass through event. These circumstances will inform the AER's assessment of what was within the service provider's control. This is both with respect to the insurance that it obtained and the cause of the claim that led to incurring the excess above the insurance cap.

- Under the additional factor, the AER considers that its enquiry will necessarily encompass any claims or findings of negligence in the context of the specific regulatory framework which empowers the AER to make a pass through determination. Information concerning the circumstances of the event may include negligence as determined by a court of law. As part of its broad enquiry, the AER may also consider claims of negligence that have not been proved or made in a court of law. For example, there may be claims of negligence but no public admission of negligence, or a confidential settlement that prevents public disclosure. It is also possible that what constitutes negligence may not be settled. The NGL and NGR do not limit the AER in taking such information into account. The AER will consider all such information available to it. Such information may or may not be determinative of whether the event was in the service provider's control for the purposes of the AER's decision on the pass through application. The AER further notes that unlawful conduct and gross negligence would not be covered by an insurer and that acts or omissions resulting from such unlawful conduct or gross negligence could not trigger this pass through event.SP AusNet amended paragraph (a) to provide that an insurance cap event is

an event whereby the Service Provider makes a claim or claims on an insurance policy. The AER definition only referred to 'a claim'.

SP AusNet submits that multiple claims are possible and present a risk scenario this cost pass through event is seeking to mitigate.[757]

The AER understands that, in general, insurance policy limits are cumulative over the insurance period and not limited to each claim. This means that, regardless of the number of claims, the policy limit will only be exceeded once. The AER considers that the exceeding of the policy limit is the circumstance that meets the factors set out in the draft decision, against which cost pass through events are assessed.[758] It is this circumstance that should trigger the event, regardless of the number of claims that lead to the exceeding of the policy limit. Accordingly, the AER considers it is appropriate to refer to 'claims' in the definition. The AER approves paragraph (a), as amended by SP AusNet.

Change in taxes event

The AER approves SP AusNet's definition of change in taxes event and its proposed definition of tax.

In its revised proposal, SP AusNet has made two minor amendments to the definition of change in taxes event. First, the reference to 'SP AusNet' has been changed to 'Service Provider'. Second, factors (i) and (ii) have been merged.[759]

The AER considers that these amendments are minor and do not have any impact on the operation of the cost pass through event.

In relation to the definition of 'Tax', SP AusNet included a definition of Tax in its Glossary. SP AusNet submits that its proposed definition of Tax is based on the definition in the National Electricity Rules (NER) and the AER's 2010 decision on Jemena's gas pipeline.[760]

The AER acknowledges that the definition is taken largely from the definition in Jemena's 2010 access arrangement as approved by the AER.[761] This definition is broadly similar to the definition in Chapter 10 of the NER. The AER also approved a definition of tax in its recent decision on APA's Roma to Brisbane pipeline.[762] That definition was taken from Chapter 10 of the NER.

The AER considers that while SP AusNet's proposed definition varies to some extent from the definition in the NER, it has largely the same effect. Accordingly, the AER approves SP AusNet's proposed definition of tax.

National energy customer framework event

The AER approves SP AusNet's amendments to the national energy customer framework event (NECF Event).

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757 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 9.
758 AER Access arrangement draft decision, Multinet, 2013–17, Part 2, September 2012, pp. 224–25.
759 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 9.
760 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 9.
761 Access arrangement, JGN's NSW distribution network 1 July 2010–30 June 2015, p. 40.
762 APT Petroleum pipelines Pty Ltd, Access arrangement, 1 September 2012–30 June 2017, Attachment 2, p.13.

The AER proposed this event in its draft decision so as to permit SP AusNet to pass through any costs it incurs in implementing NECF once it is adopted in Victoria.

In its revised proposal, SP AusNet largely adopted the AER's definition of a NECF event, proposed in its draft decision. However, SP AusNet made an amendment, adding a final phrase 'including any amendment, withdrawal or introduction of any associated Victorian legislation, regulations or rules'.

SP AusNet submitted that, as well as the enabling legislation referred to in the definition required by the AER, there will also be associated state legislation, regulations or rules that will accompany and support the introduction of NECF. The definition should be broadened to include any such changes. SP AusNet submitted that this approach reflects the intention of Part 4 of Schedule 3 of the NGR, which refers to the pass through of costs arising from the commencement of NECF.[763]

The AER proposed the NECF event because it considered that it was appropriate for SP AusNet to recover any expenditure it incurs in implementing NECF.[764] The implementation of NECF will involve new legislation, regulations or rules that adopt and give effect to the national Energy Retail Law (South Australia) Act 2011, the National Energy Retail Regulations (South Australia) and the National Energy Retail Rules (South Australia). However, the implementation of NECF may also involve the withdrawal or amendment of existing Victorian legislation, regulations or rules. This may particularly be the case if any of these instruments are inconsistent with NECF.

The amendment proposed by SP AusNet acts to make it clear that where the withdrawal or amendment of legislation, regulations or rules occurs in order to give effect to the relevant NECF instruments, the NECF event will cover it. The AER considers that this proposed amendment acts to clarify the meaning of the types of instruments that may give effect to NECF. This adds greater clarity and reduces the risk of disputes. The AER considers that this is in the long term interests of consumers with respect to price.

Mains replacement event

In the draft decision the AER proposed a pass through to address any change in circumstances which requires the distribution business to undertake mains replacement beyond the volume considered to be conforming capex by the AER in its decision.

The AER considers the merits of a proposed pass through on a case by case basis.

The AER considers that the capex mains replacement pass through reflects the AER’s conceptual criteria. Furthermore, the AER considers that, given the specific circumstances, the pass through promotes the NGO.

The mains replacement program accounts for a significant proportion of the total capex allowance. The key driver for the program is to address longer term safety and this is undertaken through a proactive program where the distributions businesses have some discretion around the timing of volumes replaced.

All distribution businesses have a statutory general obligation under s.32 of the *Gas Safety Act* to 'manage and operate each of its facilities to minimise as far as practicable' the hazards and risks to the safety of the public and customers arising from gas, interruptions to the conveyance or supply of

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763 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 7.

764 AER, Draft decision, SP AusNet access arrangement proposal 2013–18, p. 224.

gas and the reinstatement of an interrupted gas supply. The obligation also includes minimising hazards and risks of damage to public property and the property of customers arising from gas. The Gas Safety Act requires a distributor in deciding what is 'practicable' to have regard to a number of factors: the severity of the hazard or risk in question; the state of knowledge about the hazard or risk and any ways of removing or mitigating the hazard or risk; the availability and suitability of ways to remove or mitigate the hazard or risk; and the cost of removing or mitigating the hazard or risk.

Therefore, the distributions businesses have a high level safety obligation. Furthermore, the distributions businesses have discretion in how they meet this high level safety obligation. As discussed in attachment 4, the distribution businesses, in practice, have number of different processes and mechanisms by which to mitigate safety risk, including proactive mains replacement. The optimal mix of processes and mechanisms may change over time given the above factors recognised in the *Gas Safety Act*.

The mains replacement pass through has been introduced by the AER to balance the risks which are borne by the distribution business and gas consumers under these circumstances:

Where there is a change in circumstances which requires the distribution business to undertake greater than historical volumes of mains replacement, the distribution business should be provided with the opportunity to recover the cost of meeting its safety and regulatory obligations through efficient investment in gas infrastructure, and

Where undertaking mains replacement greater than historical volumes is prudent and efficient and necessary to meet safety and reliability obligations, it is in the long term interests of consumers to pay higher tariffs; and conversely, where circumstances do not warrant such expenditure, consumers should not pay higher tariffs than necessary.

The AER considers that the mains replacement pass through enables these risks to be balanced.

The AER has revised the operation of the pass through. The pass through differs to that proposed by the AER in its draft decision. It takes into account consultation with and information provided by Multinet and the other distribution businesses following the draft decision.

The pass through will apply only to low pressure to high pressure block rollout mains replacement and medium pressure supply mains replacement that is necessary for carrying out of the proposed low pressure to high pressure block rollout in the 2013–17 access arrangement period.

Only one pass through application will be accepted during the 2013–17 access arrangement period.

No materiality threshold will apply. No volume cap will apply to the pass through. For the suburb/postcode areas where mains replacement was initially proposed, the AER will assess and pre-approve the unit rate in the AER's final decision (see further discussion below).

The trigger event for the pass through is completion of 207 kilometres of mains replacement. The 207 kilometres has been calculated by deducting 9 months worth of mains replacement from the historical volume over the 2008–12 period. This is calculated using the mains replacement schedule provided by the distribution business in its revised proposal.

Where volumes are undertaken in suburbs where unit rates have not been approved in the AER's final decision, the distribution business will be required to submit a proposal to the AER for those unit rates as part of its pass through application. The evidence that the AER will consider in assessing the efficiency of the proposed unit rates may include but shall not be limited to:

- whether the unit rate is an awarded tender rate and whether the rates were determined through a competitive tender process.

In the instance where the approved volumes of mains replacement for a particular suburb or suburbs have not been carried out, and are resubmitted as part of the pass through application, the expenditure differential only will be approved. This will be calculated by:

- Calculating the difference between the total capex for mains replacement approved by the AER in its final decision, and the total area adjusted actual expenditure[765] undertaken by SP AusNet to complete the approved volumes.
    - Subtracting this difference from the total approved pass through expenditure.

If approved, the pass through expenditure will consist of:

- The expenditure incurred or to be incurred in order to undertake the approved volumes, less any adjustment amount.
- An adjustment for the difference between:
    - the time value of money allowed for the expenditure approved in the AER's final decision for completion of historical volumes (as per the blue hatched area in Figure 1-4), and
    - the time value of money for the expenditure approved in the AER's final decision but undertaken in the timeframe that the volume was actually completed (as per the orange shaded area)[766]. This ensures that from a time value of money perspective the business is neutral as to whether the volume of mains replacement was approved entirely upfront (as per the orange shaded area in Figure 1-4) or via a combination of upfront funding plus the pass through.

For the purposes of assessing a cost pass through application under this event under clause 8 of Part B of Multinet's access arrangement, the AER will consider these factors to be other factors that the AER considers relevant (factor (g)).

Materiality threshold

The AER approves SP AusNet's definition of materiality.

SP AusNet has adopted the AER's required definition of materiality, subject to a minor qualification. The qualification makes it clear that the materiality threshold applies to a relevant pass through event that includes a reference to materiality.

The AER considers that this amendment is reasonable. It provides clarity and makes it clear when the materiality threshold applies. This is consistent with the NGO because it promotes the efficient operation and use of natural gas services.

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765 This is the sum of the volume multiplied by pre-approved unit rate for suburbs/postcodes where the AER has approved a unit rate plus the volume multiplied by the actual unit rate for suburbs/postcodes where the AER has not approved a unit rate (subject to the AER assessing that the unit rate actually incurred was prudent and efficient).

766 Where volumes have been undertaken in suburbs/postcodes where the AER has not pre-approved a unit rate, the AER will apply a residual unit rate to these volumes. The residual unit rate will be calculated as the total approved expenditure for historical volumes less the expenditure incurred for mains replacement actually undertaken in the suburbs/postcodes included in the AER's approved historical expenditure, divided by, the total approved historical volume less the volume undertaken in the suburbs/postcodes included in the AER's approved historical expenditure.

12.4.3 Procedure for oversight and approval of tariff variation

Part year tariffs

The AER's final decision on the 2013–17 access arrangements for the Victorian gas service providers has been made after the 1 January 2013 revision commencement date specified in the 2008–12 access arrangements for these service providers. Taking into account r. 92(3) of the NGR, the AER considers that the 2013 reference tariffs under the 2013–17 access arrangements should take effect from 1 July 2013 until 31 December 2013.[767]

SP AusNet adopted the AER's draft decision in regard to the implementation of reference tariffs for the 2013. In its revised proposal, SP AusNet stated that the effective date for its 2013 reference tariffs is 1 July 2013.[768]

The AER's final decision is to accept the timing of the implementation of SP AusNet's reference tariffs for 2013.

Annual and within year variations

The AER's final decision is not to approve SP AusNet's revised proposal for a 35 business day tariff variation submission requirement. The AER's preferred 50 business day requirement facilitates earlier market notification of approved tariffs, providing greater certainty to retailers and consumers.[769] This is a material benefit to market participants.

In its access arrangement submission of March 2012, SP AusNet proposed to notify the AER in respect of any reference tariff variations at least 35 business days prior to the next calendar year.[770] In its draft decision, the AER did not accept SP AusNet's proposal.[771] The AER's draft decision established a 50 business day requirement. The AER considered that SP AusNet's proposed timeframe does not provide the AER adequate oversight over the annual tariff variation process, and accordingly considers its 50 business day requirement preferable.[772] The reasons for the AER's decision are set out in attachment 11 of the draft decision.[773]

In its revised proposal, SP AusNet did not adopt the AER's draft decision.[774] SP AusNet submitted that 35 business days is preferable, because this shorter period will allow for use of most recent inputs and minimises its own administrative costs. SP AusNet also submitted that a 50 business day requirement creates risk of the AER setting rather than approving tariffs.[775]

Origin Energy Victoria (Origin) submitted that from a retailer's perspective, at least 20 business days should be allowed for retailers to prepare for implementation.[776] Origin's submission is consistent with the AER's approach to implementing an adequate period for oversight in the reference tariff variation

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767 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 230.
768 SP AusNet, Revised access arrangement proposal, Part B – Reference tariffs and reference tariff policy, section 9, 9 November 2012, p. 37.
769 NGR, r. 40(3).
770 SP AusNet, *Access arrangement proposal: Part B—Reference tariffs and reference tariff policy*, 30 March 2012 p. 20.
771 AER, Access arrangement draft decision, SPI Networks (Gas) Pty Ltd, 2013–17, Part 2, September 2012, p. 231.
772 NGR, r. 97(4).
773 AER, Access arrangement draft decision, SPI Networks (Gas) Pty Ltd, 2013–17, Part 2, September 2012, p. 231.
774 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 4.
775 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 6.
776 Origin Energy Victoria Pty Ltd, Submission to the Victorian gas access arrangement review, 7 January 2013, p. 3.

mechanism of at least 50 business day notice, which allows 30 business days for the AER's approval and 20 business days for retailers to prepare for implementation.

The AER considers that SP AusNet's objections to the 50 business day requirement are relatively minor or readily overcome. To facilitate the use of the most recent inputs in reference tariff variation determinations, the AER will accept updates for incorporation in SP AusNet's tariff model where specific inputs become available after submission. Such updates do not change tariff structures. A specific input update generally requires manual change to a single spreadsheet input value where models are well designed.

SP AusNet submitted that some gas network service providers also operate electricity networks and are subject to a 50 day requirement for electricity tariff variations.[777] Further, SP AusNet also submitted that staggering required submission dates across sectors would mitigate service provider workload related costs.[778] The AER considers, however, that the rationale for earlier tariff submission for both sectors is equally strong. Earlier provision to the market of approved tariffs is a significant benefit, outweighing potential marginal workload management issues for network service providers.

In response to SP AusNet's suggestion that the AER may become a tariff setter and therefore act beyond its scope, the AER considers that tariff models will be constructed by SP AusNet, and submitted by SP AusNet to the AER. The structure of the tariff will, therefore, also remain the responsibility of SP AusNet. Acceptance by the AER of updated tariff model inputs does not change the respective roles of network service providers and the AER.

The AER does not approve SP AusNet's proposed procedures on the timeframe of the assessment by the regulator. SP AusNet submitted that the proposed haulage reference tariffs will be deemed to have been verified as compliant in writing by the regulator by the end of 15 business days from the date on which the regulator received the service provider's notification unless the regulator has notified the service provider of its decline to verify the proposed tariffs.[779] Based on the above reasoning, the AER considers that 30 business days will provide the AER adequate oversight over the annual tariff variation process.[780] The AER's final decision is that the proposed haulage reference tariffs be deemed to have been verified as compliant in writing by the regulator by the end of 30 business days from the date on which the AER received the service provider's notification.

Procedures for cost pass through variation in reference tariffs

The AER does not approve SP AusNet's procedure for pass through event variations. The AER proposes that the procedure be amended to make SP AusNet's access arrangement acceptable.

SP AusNet has largely adopted the AER's required procedures for approving cost pass through event variations to reference tariffs. However, it has made a number of changes.

The AER stated in its draft decision that it considered that a consistent approval process is desirable from the perspective of transparency and administrative efficiency.[781] In setting out the proposed

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777 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 5.

778 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 5.

779 SP AusNet, *Access arrangement proposal: Part B—Reference tariffs and reference tariff policy*, 30 March 2012, section 4.2(b), p. 21.

780 NGR, r. 97(4).

781 AER, Access arrangement draft decision, SPI Networks (Gas) Pty Ltd, 2013–17, Part 2, September 2012, p. 233.

approval process the AER had regard to its recent decisions and sought to achieve consistency with them.

In its revised proposal, SP AusNet submitted that it supports this goal of seeking consistency.[782] However, SP AusNet submitted that any changes to the process for gas should be consistent with the approach for electricity set out in the current consultation and draft rule changes.[783] SP AusNet has proposed a number of revisions on this basis.

The AER remains of the view that a consistent approach for approving pass through applications for all gas distributors is desirable and will be beneficial.[784] As discussed in its draft decision[785] the AER considers that a consistent approach will lead to administrative efficiency.[786] The AER notes SP AusNet's submissions regarding consistency with the approach for electricity. However, the AER considers that at this stage, consistency with other gas decisions is the primary objective. The AER's proposed approach aligns with the approach it has approved in recent gas decisions.[787] The AER considers that this approach is preferable to following the NER. This is because aligning the process across the gas industry creates a level playing field where each business is assessed against the same criteria. It also allows entities with multiple gas businesses greater certainty of outcomes in like for like circumstances and reduces the risk of such entities following the incorrect process. These factors promote the efficient operation and use of natural gas services.

The following sets out the AER's consideration of SP AusNet's particular amendments to the drafting of the event.

Service Provider may notify a positive pass through event

In its draft decision, the AER proposed that it be notified of all pass through events.[788] In its revised proposal, SP AusNet has proposed that it may notify the AER if the event would lead to a positive pass through amount and must notify the AER if the event would lead to a negative pass through amount.

The AER considers that it is reasonable to allow SP AusNet to make its own choice about whether it wishes to apply for a cost pass through that is to its benefit. This approach permits flexibility and aids in administrative efficiency by avoiding the need to consider applications that SP AusNet considers are unnecessary.

40 business days

In its draft decision, the AER proposed a procedure that gave it 90 business days to approve or reject the pass through application.[789] SP AusNet has not adopted this time frame and has proposed 40 business days.[790]

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782 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 13.
783 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 13.
784 NGR r. 97(3)(d).
785 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 233.
785 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 233.
786 NGR r. 97(3)(b)
787 Amadeus Gas Pipeline: Roma to Brisbane pipeline 2012–2017.
788 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 244.
789 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 244.
790 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 13.

The AER does not approve this timeframe. Each business has proposed a different timeframe.[791] The AER considers that having separate timeframes may cause confusion. Such an outcome would not promote the efficient operation and use of natural gas services.

SP AusNet did not give any reasons for this amendment, other than the general statement that it considers that any changes to the cost pass through process for gas should, as far as possible be consistent with the approach for electricity.[792]

In its two most recent gas access arrangement decisions[793] the AER approved mechanisms providing for a 90 day review period. Consistency with these decisions will not advantage or disadvantage any particular stakeholder. For these reasons, the AER considers that 90 business days is a preferable alternative.[794]

Additional information

SP AusNet proposes an amendment to require it to provide additional information as reasonably required by the AER. SP AusNet did not give any reasons for this amendment, other than the general statement that it considers that any changes to the cost pass through process for gas should, as far as possible be consistent with the approach for electricity.[795]

The AER approves this amendment. The AER considers that this amendment acts to assist in producing a fully informed outcome. This will promote the efficient operation and use of natural gas services.[796]

Extension period

The AER's proposed procedure sets out a mechanism for the AER to extend its assessment period.[797] In its revised proposal, SP AusNet has not adopted this revision. SP AusNet has proposed an extension mechanism whereby the AER may by written notice extend the review period by up to 60 business days. SP AusNet's mechanism also required the AER to give reasons why the extension is required. SP AusNet did not give any reasons for this amendment, other than the general statement that it considers that any changes to the cost pass through process for gas, as far as possible, should be consistent with the approach for electricity.[798]

The AER considers that SP AusNet's amendment continues to provide a mechanism for seeking extensions. The AER considers that this is largely consistent with its proposal. The AER considers that it is reasonable for it to be required to give reasons for the extension. This helps to keep the applicant and interested parties informed about the process. This is consistent with the efficient operation and use of natural gas services.[799] Accordingly, the AER approves this part of SP AusNet's cost pass through mechanism.

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791 Envestra has proposed 90 business days, Multinet has proposed 60 business days.
792 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 13.
793 Roma to Brisbane, Amadeus.
794 NGR. 97(3)(d).
795 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 13.
796 NGR. 97(3)(e).
797 AER, Access arrangement draft decision, SPI Networks (Gas)Pty Ltd, 2013–17, Part 2, September 2012, p. 244.
798 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 13.
799 NGR. 97(3)(e).

Information from an Authority/Information that is publicly available

SP AusNet has proposed a detailed provision where the AER may give written notice stating that the AER requires information from an Authority or that it requires information that it anticipates will be made publicly available by a judicial body or a royal commission, in order to make a determination in respect of a relevant pass through event. The provision then sets out the process for extending the time period for assessment during the time it takes for the AER to obtain the information

SP AusNet's proposal appears to be based on sub-paragraphs k3 and k4 under r. 6.6.1 of the NER. It appears to have combined these two separate paragraphs into a single clause. SP AusNet did not give any reasons for this amendment, other than the general statement that it considers that any changes to the cost pass through process for gas should, as far as possible be consistent with the approach for electricity.[800]

The AER considers that any extensions to time periods should be covered by the general extension provision.[801] Further, the AER's proposed procedure provides for the time period to be extended by the time it takes to obtain information, consult or obtain expert advice.

Deemed decision

SP AusNet has proposed that if the AER fails to make a decision in the time allowed, it will be deemed to have approved the proposed variation.

SP AusNet did not give any reasons for this amendment, other than the general statement that it considers that any changes to the cost pass through process for gas should, as far as possible be consistent with the approach for electricity.[802]

The AER's previous gas decisions do not contain this provision and not all Victorian businesses have proposed it.[803] The AER considers that approval of this deeming provision would create inconsistency and could potentially lead to confusion.[804]

The AER notes that the deeming provision is set out in the NER for the purposes of reporting on jurisdictional schemes and has been considered appropriate by the rule maker in consultation with stakeholders. The AER considers that is not appropriate for this kind of decision-making provision to be included in a pass through event provision for gas.

Materiality

SP AusNet has removed the reference to materiality in the approval procedure. The AER approves this amendment.

The AER considers that this appropriately takes into account that two cost pass through events do not contain a materiality threshold.

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800 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 13.
801 NGR. 97(3)(e).
802 SP AusNet, Revised access arrangement proposal, RAAP Chapter 8, Tariffs and Tariff Variation Mechanism, 9 November 2012, p. 13.
803 NGR. 97(3)(d).
804 NGR. 97(3)(d).

Effective date

SP AusNet has proposed two additional dates for any variation to take effect from – at the Service Provider's option or 1 July. The AER does not approve this amendment

The AER considers that variations should take effect from 1 January. This is aligned with the tariff review. The AER considers that it is reasonable for tariffs to be varied once each year. Multiple or random variations may lead to price shocks and make comparisons by consumers more difficult.[805] This would not be in the long term interests of consumers with respect to price.

Building block components

SP AusNet has not included factor (c) which provides that the total costs to be passed through are building block components of total revenue.

The AER approves SP AusNet's removal of factor (c) proposed by the AER.

SP AusNet did not include factor (c) proposed by the AER. Factor (c) requires the AER to take into account whether the total costs to be passed through are building block components of total revenue. SP AusNet did not give any reasons for not including this factor.

However, upon further consideration, the AER considers that the factors (c) and (d) have substantially the same effect. Factor (d) requires the costs to meet the relevant NGR criteria for determining the building block for total revenue. Thus, both factors refer to assessing the costs against the building block approach for total revenue.

However, factor (d) refers to the NGR criteria for determining the building blocks. The AER considers that this is the preferable factor because it makes it clear that the building block approach is the one set out in the NGR. Factor (c) is less specific about what the building block approach is.

For these reasons the AER considers that it is not necessary to have both factors and approves the removal of factor (c).

Time cost of money and economic neutrality

SP AusNet proposed two additional factors—(e) and (f). The AER proposes to remove these factors to make SP AusNet's access arrangement acceptable.

Factor (e) refers to the time cost of money based on the weighted average cost of capital for the Service Provider.

Factor (f) refers to the need to ensure that the financial effect of the Relevant Pass Through Event on the Service Provider is economically neutral.

SP AusNet's proposed adjustment factor set out in its tariff control formula[806] has the effect of adjusting tariffs for those costs associated with the cost pass through process. Within the adjustment factor, the WACC accounts for the cost of raising the funds, and the CPI accounts for inflationary

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805 NGR. 97(3)(a) and (b).

806 SP AusNet, *Revised Access Arrangement*, 9 November 2012, Part B – Reference Tariffs and Reference Tariff Policy, p. 12.

effects. The determined amount is then discounted to its present value. Therefore, the time value of money is already accounted for.

The economic neutrality test goes beyond what is required by the revenue and pricing principles. The revenue and pricing principles only require that a Service Provider be able to recover at least their efficient costs. There is no requirement for economic neutrality. Accordingly, the AER does not consider factor (f) to be consistent with the NGO.

Further requirements

The AER approves these amendments.

SP AusNet has proposed that a pass through amount not be taken into account:

- when deciding its haulage reference tariffs or components thereof; or
- in deciding whether its haulage reference tariffs or components thereof comply with the tariff control formula; and
- that the pass through amount is not subject to the procedures in clause 4.

The AER considers that this proposed amendment does not affect the operation of the cost pass through mechanism. Rather, they serve to make the relationship with the price control formulae absolutely clear. This adds clarity and limits the scope for disputes to arise.[807]

12.5 Revisions

The AER proposes the following revisions to make the revised access arrangement proposal acceptable:

Revision 12.1: Make all necessary amendments to reflect the AER's final decision on the reference tariffs for 2013, as set out in Table 12.1 to Table 12.4.

Table 12.1: SP AusNet Haulage Reference Tariffs—Central Zone

Tariff V Residential		
Distribution Fixed Tariff Component	$0.0877/day	
Consumption Range (GJ/day)	Peak Period ($/GJ)	Off-peak Period ($/GJ)
0-0.1	7.3591	5.8971
> 0.1 - 0.2	5.4399	3.7129
> 0.2 - 1.4	1.7060	1.7038
> 1.4	1.0641	0.5858

[807] NGR. 97(3)(e).

Tariff V Non-residential		
Distribution Fixed Tariff Component	$0.0884/day	
Consumption Range (GJ/day)	Peak Period ($/GJ)	Off-peak Period ($/GJ)
0-0.1	6.6384	6.2863
> 0.1 - 0.2	4.4138	4.4073
> 0.2 - 1.4	2.3835	2.3562
> 1.4	0.9580	0.9195

Tariff M	
Annual MHQ (GJ/hr)	Tariff ($/MHQ)
0-10	1731.2684
>10 - 50	1253.7823
> 50	711.9495

Tariff D	
Annual MHQ (GJ/hr)	Tariff ($/MHQ))
0-10	937.1568
>10 - 50	640.0310
> 50	361.2439

Table 12.2: SP AusNet—Haulage Reference Tariffs—West Zone

Tariff V Residential

Distribution Fixed Tariff Component	$0.0877/day

Consumption Range (GJ/day)	Peak Period ($/GJ)	Off-peak Period ($/GJ)
0-0.1	5.9010	3.9583
> 0.1 - 0.2	5.4061	2.7106
> 0.2 - 1.4	2.2439	1.6233
> 1.4	1.0153	0.7195

Tariff V Non-residential

Distribution Fixed Tariff Component	$0.0884/day

Consumption Range (GJ/day)	Peak Period ($/GJ)	Off-peak Period ($/GJ)
0-0.1	4.7562	4.4804
> 0.1 - 0.2	3.9788	3.8146
> 0.2 - 1.4	2.2023	2.0626
> 1.4	0.7962	0.7708

Tariff M

Annual MHQ (GJ/hr)	Tariff ($/MHQ)
0-10	1731.2684
>10 - 50	1253.7823
> 50	711.9495

Tariff D

Annual MHQ (GJ/hr)	Tariff ($/MHQ)

0-10	937.1568
>10 - 50	640.0310
> 50	361.2439

Table 12.3: SP AusNet—Haulage Reference Tariffs—Adjoining Central Zone

Tariff V Residential		
Distribution Fixed Tariff Component	$0.0877/day	
Consumption Range (GJ/day)	Peak Period ($/GJ)	Off-peak Period ($/GJ)
0-0.1	10.3488	8.8046
> 0.1 - 0.2	8.2914	6.8411
> 0.2 - 1.4	6.3069	5.3106
> 1.4	4.4339	4.0574

Tariff V Non-residential		
Distribution Fixed Tariff Component	$0.0884/day	
Consumption Range (GJ/day)	Peak Period ($/GJ)	Off-peak Period ($/GJ)
0-0.1	9.8256	9.5138
> 0.1 - 0.2	7.6346	7.3144
> 0.2 - 1.4	5.9924	5.8775
> 1.4	4.4454	4.3554

Tariff M

Annual MHQ (GJ/hr)	Tariff ($/MHQ)
0-10	1731.2684
>10 - 50	1253.7823
> 50	711.9495

Tariff D	
Annual MHQ (GJ/hr)	Tariff ($/MHQ)
0-10	937.1568
>10 - 50	640.0310
> 50	361.2439

Table 12.4: SP AusNet—Haulage Reference Tariffs—Adjoining West Zone

Tariff V Residential		
Distribution Fixed Tariff Component	$0.0877/day	
Consumption Range (GJ/day)	Peak Period ($/GJ)	Off-peak Period ($/GJ)
0-0.1	9.2811	7.4521
> 0.1 - 0.2	8.6150	6.9034
> 0.2 - 1.4	6.2271	5.2907
> 1.4	4.2690	4.0828

Tariff V Non-residential		
Distribution Fixed Tariff Component	$0.0884/day	
Consumption Range (GJ/day)	Peak Period ($/GJ)	Off-peak Period ($/GJ)
0-0.1	8.1344	7.8195
> 0.1 - 0.2	7.6213	7.2508

> 0.2 - 1.4	6.1376	6.0285
> 1.4	4.4993	4.3993

Tariff M	
Annual MHQ (GJ/hr)	Tariff ($/MHQ)
0-10	1731.2684
>10 - 50	1253.7823
> 50	711.9495

Tariff D	
Annual MHQ (GJ/hr)	Tariff ($/MHQ)
0-10	937.1568
>10 - 50	640.0310
> 50	361.2439

Revision 12.2: Make all necessary amendments to reflect the AER's final decision on the x factors for the 2013–17 access arrangement period. The AER's final decision on the x factors is set out below:

X_t = 17.36 per cent for the calendar year 2013

X_t = 6.00 per cent for the calendar year 2014

X_t = –1.00 per cent for the calendar year 2015

X_t = –2.00 per cent for the calendar year 2016

X_t = –3.00 per cent for the calendar year 2017

Revision 12.3: Make all necessary amendments to reflect the AER's final decision on the Energy Safe Victoria (ESV) levy. In particular, exclude ESV levy from the definition of licence fee factor on page 12 of the Access arrangement proposal Part B.

Revision 12.4: Make all necessary amendments to reflect the AER's final decision on the value of pre–tax WACC as set out below.

Real pre–tax WACC = 5.15 per cent

Revision 12.5: Make all necessary amendments to reflect the AER's final decision on the demand true factor. Delete all references to the demand true up factor in the proposed access arrangement Part B.

Revision 12.6: Make all necessary amendments to reflect the AER's final decision on the timeframe for notifying the AER in respect of the annual reference tariff variation process. In particular:

Delete section 4.1(a) and replace with the following:

The Service Provider will, at least 50 Business Days prior to the commencement of the next Calendar Year, submit proposed Haulage Reference Tariffs to apply from the start of the next Calendar Year for verification of compliance by the Regulator, in accordance with clauses 4.2(a), (b), (c) and (d).

Delete section 4.2(b) and replace with the following:

The proposed Haulage Reference Tariffs will be deemed to have been verified as compliant in writing by the Regulator by the end of 30 Business Days from the date on which the Regulator received the Service Provider's notification under clauses 4.1(a), (b) or (c) unless the Regulator has notified the Service Provider in writing that it has declined to verify the proposed Haulage Reference Tariffs as compliant. The AER may require an extension of a specified duration. The AER will notify SP AusNet of the extension and its duration within 30 business days of receiving a notification from SP AusNet.

Delete the first paragraph of section 4.4 and replace with the following:

If the Service Provider does not, at least 50 Business Days prior to the commencement of the next Calendar Year t submit proposed Haulage Reference Tariffs to apply from the start of the next Calendar Year t in accordance with clause 4.1(a) then:

Revision 12.7: Make all the necessary amendments to reflect the AER's final decision on the timing for the implementation of the 2013 reference tariffs in Part B of the proposed access arrangement. In particular:

Replace section 1.1(a) of the Access arrangement Part B with the following:

For the period 1 January to 30 June 2013 the haulage Reference Tariffs will remain unchanged from 2012. The Haulage Reference Tariffs to apply from 1 July 2013 are the tariffs set out in clause 9 adjusted to comply with the Tariff Control Formula and rebalancing control formula in clause 3 and verified by the Regulator as if clause 4 applied (but for the timing requirements of clause 4.1).

Revision 12.8: Amend the definition of Relevant Pass Through Event in the glossary of Part A by deleting the Financial Failure of a Retailer Event.

Revision 12.9 Make the following amendment to the Glossary in Part A of SP AusNet's access arrangement proposal:

Delete the Financial Failure of a Retailer Event.

Revision 12.10: Make the following amendments to the Glossary in Part A of SP AusNet's access arrangement proposal:

Amend the definition of a Mains Replacement Event as follows:

A Mains Replacement Event means the event whereby SP AusNet:

a) completes 348 kilometres of its planned total completion of Historical Volumes of Mains Replacement during the course of the 2013–17 access arrangement period; and

(b) costs are incurred, or are to be incurred, by SP AusNet in the remainder of the 2013–17 access arrangement period to complete a volume of Mains Replacement in excess of the Historical Volumes.

For the purposes of the Mains Replacement Event:

Historical Volumes means 415 km being the volume of mains replacement completed by SP AusNet for the 2008 to 2012 access arrangement period, with reference to the AER's decision to approve the 2013–17 access arrangement and its reasons as set out in its Final Decision; and

Mains Replacement means mains replacement for low pressure to high pressure block rollout, which involves the replacement of:

(i) low pressure distribution mains with high pressure polyethylene mains through a process of dividing a low pressure region into smaller areas (referred to as blocks) which are then subject to systematic low pressure to high pressure replacement, and

(ii) includes the minimum amount of replacement of medium pressure supply mains necessary to undertake the proposed low pressure mains replacement in the 2013–17 access arrangement period, as specified in (i)

Costs are to be determined in accordance with the pre-approved unit rates set out in the AER's decision to approve the 2013–17 access arrangement and its reasons as set out in its Final Decision or, where unit rates have not been pre-approved, are to be determined as otherwise set out in its Final Decision.

Revision 12.11: Make the following amendments to section 8 of Part B of SP AusNet's access arrangement:

replace each reference to '40 business days' with '90 business days'.

Delete the 5th and 6th paragraphs

In the 8th paragraph, remove the phrase 'or, at the Service Provider's option' and '(or, if applicable, deemed decision)'.

Delete factors (e) and (f).

Delete the final paragraph commencing 'A Pass Through amount applied...' and the two points beneath it.

13 Non-tariff components

SP AusNet's access arrangement proposal sets out terms and conditions that are not directly related to the nature or level of tariffs paid by users, but which are important to the relationship between the Service Provider and users. These are referred to by the AER as the non-tariff components of the access arrangement.

This attachment sets out the AER's consideration of the non-tariff components of SP AusNet's revised access arrangement proposal. These include SP AusNet's proposed capacity trading requirements,[808] queuing policy,[809] extension and expansion requirements,[810] and the terms and conditions on which the reference service will be provided.[811]

13.1 AER decision

The AER does not approve the following aspects of SP AusNet's non-tariff components:

- terms and conditions
- revision submission date.

The AER approves the following aspects of SP AusNet's non-tariff components:

- queuing policy
- extensions and expansions policy
- capacity trading requirements
- terms and conditions for changing receipt or delivery points
- review commencement date.

13.2 Terms and conditions

13.2.1 Final decision

The AER does not approve the terms and conditions as certain terms and conditions are not consistent with the NGO. In particular, the terms and conditions should apply to users in general not only retailers. Other provisions, such as the following, require correction or amendment to make the provisions acceptable:

- 4.1(b)—provision of distribution services
- 7.1(b)—charges
- 7.4(k)—distribution services-invoices payment and interest
- 9.1(j)—notification to customers
- 19.2(c)—amendment

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808 NGR, r. 105.
809 NGR, r. 103.
810 NGR, r. 104.
811 NGR, r. 48(1)(d)(ii)

- 5.6—extension and expansion policy
- 5.9.1—review submission date

Apart from the terms discussed below, the AER approves all of the other non-tariff terms and conditions.

13.2.2 Revised proposal

SP AusNet's terms and conditions are set out in part C of its revised access arrangement proposal. Part A of the revised access arrangement proposal also includes some non-tariff terms.

SP AusNet's revised proposal adopts most of the changes required by the AER in its draft decision. SP AusNet adopted AER revisions 1.1 (ancillary reference services); 12.2 (entitlement to refuse service), 12.3 (user obligation / capacity management), 12.4 (disconnection and curtailment), 12.7 (guaranteed service level payments), 12.8 (provision of information concerning Class A, B and C inquiries), 12.9 (user indemnity), 12.10 (new distribution supply points), 12.13 (consultation prior to disconnection), and 12.15 (exclusion of liability) and 12.18 (capacity trading rights).

SP AusNet did not adopt certain other revisions required in the AER's draft decision.

13.2.3 Assessment approach

The AER's assessment approach for terms and conditions is set out in section 12.1.3 in chapter 12 of part 2 of the draft decision.

The AER received submissions form AGL[812] and Origin.[813]

13.2.4 Reasons for the decision

Where SP AusNet has not adopted the AER's draft decision or submissions have been received on a particular term or condition, or the AER has considered other relevant information, the AER's assessment is set out below.

For all other terms and conditions, the AER approves these for the reasons set out in its draft decision.[814]

Application of terms and conditions to End-Users

The AER does not approve clause 5.4.3 of Part A of SP AusNet's revised proposal.

SP AusNet proposed a new clause 5.4.3 of its revised access arrangement proposal as follows:

> Notwithstanding clauses 5.4.1 and 5.4.2 above, where appropriate and as permitted under the National Gas Law, the Service Provider and User may negotiate amendments to the terms and conditions set out in Part C on which the Service Provider will provide Distribution Services. In particular, amendments will be required for any non-retailer Users requiring Distribution Services to reflect the service requirements of any such User.

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812 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 7 January 2013, Attachment A.

813 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 7 January 2013, p. 3.

814 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, pp. 246–261.

Effectively this would require all non-retailer users to negotiate terms and conditions in order to access its services in order 'to reflect the service requirements of any such User'.

The AER proposes a number of revisions to Part C to make the access arrangement acceptable. In particular, the AER proposes amendments to SP AusNet's revised proposal so that it can apply to Users who are not retailers.

The AER in its draft decision concluded that clause 5.3.1 of Part A of SP AusNet's initial proposal was inconsistent with r. 48(1) of the NGR as it operated to limit the application of the access arrangement terms and conditions to only those Reference Services provided to retailers.[815]

The AER considered that s. 322 of the NGL operates to allow SP AusNet to negotiate terms that are appropriate to an end user, and reflect issues and risks specific to the direct provision of services to that end user.[816] The AER considered that the terms and conditions in the access arrangement should form the basis for any such negotiation. Therefore the AER considered that SP AusNet's terms and conditions should continue to apply to all Users who request Reference Services from the Service Provider and not just retailers.[817]

In its revised proposal, SP AusNet amended clause 5.3.1 of its initial proposal (renumbered as clause 5.4.1 in its revised proposal) in accordance with the AER's draft decision so that the proposal no longer states that it only applies to Users who are retailers. However, SP AusNet also revised clause 5.3.3 (now clause 5.4.3) (see above extract).

SP AusNet submitted that it broadly adopted the AER's draft decision that the access arrangement terms and conditions should apply to all Users and should form the basis of any negotiation with Users.[818] However, SP AusNet also submitted that the terms and conditions are largely tailored towards a User who is a retailer. In order to provide maximum clarity to all prospective Users, SP AusNet submitted that it is preferable to make clear that for non-retailer Users those terms and conditions are likely to require amendment.[819]

The AER is concerned that clause 5.4.3 of the revised proposal is not in accordance with rule 48(1)(d)(ii) of the NGR, which requires that a full access arrangement specify, for each Reference Service, the terms and conditions on which the Reference Service will be provided. The AER maintains that the terms and conditions should not be limited in their application to only those Users who are retailers and should apply to all Users who request reference services from the Service Provider.

The AER is concerned that clause 5.4.3 does not set out the terms and conditions on which a reference service will be provided to a non-retailer User. It merely states that amendments will be required for any such user requiring distribution services to reflect the service requirements of any such user. The AER considers that this acts to make the terms and conditions an agreement to agree. For users other than retailers this makes an agreement comprising the terms and conditions uncertain. The AER considers that this is inconsistent with s. 48(1)(d)(ii) of the NGR. The AER

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815 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 248.

816 Section 322 of the NGL provides that: 'subject to section 135, nothing in this Law is to be taken as preventing a service provider from entering into an agreement with a user or a prospective user about access to a pipeline service provided by means of a scheme pipeline that is different from an applicable access arrangement that applies to that pipeline service'.

817 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, pp. 248–249.

818 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 4.

819 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 4–5.

considers that it is necessary that the terms and conditions in an access arrangement be sufficiently certain that a potential user understands the fundamental obligations and requirements that will allow it to access the reference services.

In assessing SP AusNet's revised proposal, the AER has considered information provided by Multinet as part of its revised proposal. The AER considers that this information on the terms and conditions on which Multinet's reference services will be provided to non-retailer Users is relevant to the AER's assessment of SP AusNet's terms and conditions. It provides a model approach for adapting SP AusNet's terms and conditions to encompass all users, not only retailers. By specifying the terms on which it will provide Reference Services to non-retailer Users, Multinet's revised proposal complies with r. 48(1)(d)(ii) of the NGR and provides for an agreement with terms and conditions that provide sufficient certainty to users as to what is required in order to access the reference services.

The AER sought comment from SP AusNet regarding the adoption of Multinet's approach in SP AusNet's terms and conditions.[820]

SP AusNet responded that it remains of the view that distributors and customers directly seeking Reference Services should be free to negotiate appropriate terms and conditions, using the retailer terms and conditions as the starting point and acknowledging that these would need adapting in places, depending on the type of Customer, size etc.[821]

SP AusNet stated that it has reviewed the Multinet provisions and, if the AER is minded to include these, SP AusNet is agreeable provided there is still some flexibility to negotiate changes individually with Customers as required.[822]

As set out in its draft decision, the AER considers that s. 322 of the NGL provides the parties may enter into an agreement for access to pipeline services that is different to the access arrangement. For this reason, and the reasons set out above, the AER considers that by adopting the approach proposed by Multinet, there remains sufficient flexibility to tailor the terms and conditions to non-retailer users whilst ensuring that the access arrangement provides a degree of certainty to non retailer users. The AER proposes to include that approach in SP AusNet's access arrangement.

With the exception of clause 3A(g) of Multinet's revised proposal (an indemnity clause), the AER proposes that SP AusNet's proposal contain the same changes in relation to the application of the terms and conditions to Users who are not retailers.

These terms are discussed below.

- Clauses 3A(a) and (c) have the effect of providing that for the purposes of the access arrangement an 'End-User' is to be treated as operating in two capacities—as a party acquiring haulage services and then as a party taking gas at the distribution supply point. Therefore where a clause obliges the User to ensure that the Customer fulfils or complies with a particular obligation or requirement the clause is to be interpreted as meaning the User itself must fulfil or comply with that particular obligation or requirement.
- The insertion of clause 3A in the access arrangement avoids the need to significantly amend Part C. It also ensures that the access arrangement specifies the terms on which Reference Services will be provided to non-retailer Users in accordance with rule 48(1)(d)(ii).

820 AER, *Information request Fd20a*, 20 February 2013.
821 SP AusNet, *Response to information request Fd20a*, 28 February 2013.
822 SP AusNet, *Response to information request Fd20a*, 28 February 2013.

- Clause 3A(b) sets out the circumstances when a User will be an End-User as follows:

Where the User is itself consuming the gas (a true 'End-User')

Where the operator of an embedded distribution network is buying gas and supplying it to the customers located off the network.

Where the User is buying the gas and haulage services but then providing the gas to someone else who consumes it. A possible scenario is where a subsidiary within a corporate group buys the gas and haulage services and then gives it to a second subsidiary which uses the gas in its plant.

- Clause 3A(d) makes clear that where a specific clause deals with End-User issues it does not derogate from the application of clause 3A to the remainder of the terms.
- Clause 3A(e) provides that persons to whom an End-User provides gas are not capital 'C' customers for the purposes of Part C. Customers as used in the terms refers to customers of a retailer and which persons are connection to the Distribution System. Where the User is an 'End-User', then it is essentially both a Retailer and a Customer. Clause 3A(3) makes clear that references to a capital 'C' Customer is to the End-User and not to the End User's own customers.
- Clause 3A(f) provides that the End-User warrants that it holds all required licences and exemptions to lawfully on-supply gas (if it does this) and operate / own an embedded network (if it does this). Clause 3A(f) makes clear that the access arrangement does not allow the connection of an embedded network to the Distribution System. If this were to occur another agreement would be required to deal with such matters as the procedures for 'tie-in', coordination of operations and maintenance, pressure between the networks, controlling gas between the networks and ensuring the embedded network does not jeopardise the operation of the Service Provider's system.

The AER proposes that further minor revisions be made to the following clauses to make SP AusNet's access arrangement acceptable. With the exception of 13.6(c) (an indemnity clause), these amendments were proposed by Multinet in its revised proposal and are required to ensure that the access arrangement applies to End-Users, or that certain clauses do not where there is no need for the clause to apply. These are discussed below:

- Clause 4.1(d) clarifies that clause 4.1(c) does not apply to he extent the User is not acquiring Distribution Services as a 'retailer'. Clause 4.1(c) concerns the Service Provider's obligations under Part 21 of the National Gas Rules ('Retail support obligations between distributors and retailers') and does not need to apply to End-Users.[823]
- Clause 4.3(a) clarifies that in the case of the End-User, AEMO transferring the financial responsibility for the MIRN to the End-User does not bring the provision of distribution services to the End-User to an end.
- Clause 4.7(d) clarifies that the User must ensure that its Customers do not exceed their Customer MHQ. As this is a material clause, this clause makes clear that the End-User must make sure it does not exceed the Customer MHQ.
- Clause 6.2(c) relieves a retailer of the obligation to pay for gas taken by its customers where the Service Provider has failed to disconnect. This is because a retailer cannot stop its customers

[823] See *National Gas (Retail Support) Amendment Rules 2010*, which inserts Part 21, Division 4 into the NGR.

taking gas. The retailer must therefore bear the cost of gas consumed by the customer. Where this arises due to the Service Provider's failure to disconnect, the cost is passed to the Service Provider. However, in the case of an End-User the application of this clause would be inappropriate since the End-User is the one taking the gas. Clause 6.2(c)(3) therefore clarifies that this clause does not apply where a User is acquiring gas as an End-User.

- Clause 7.1(b) provides that the User does not have to pay a charge to the Service Provider when the Customer is obliged to pay the charge directly to the Service Provider. By virtue of clause 3A, an End-User is treated as both a 'Customer' and 'User'. This dual capacity solution would create some confusion in clause 7.1(b) which should therefore be amended to clarify that it does not apply to End-Users.

- Clause 7.1(c) provides that the User must pay the Charges for services the Service Provider provides to the User in respect of the Customer. In the case of an End-User, the Customer and the User are the same person. For clarity, clause 7.1(c) expressly provides that the End-User must pay the charges for all the services it acquires as an 'End-User'.

- Clause 7.4(e) provides that charges for haulage reference services included in an invoice for Distribution Services must only be in relation to Customers whose meters were due to be read in the period of an invoice. It is clarified that this applies to Users acquiring gas as an End-User.

- Clause 7.6(e) deals with the coordination between the User and Service Provider in respect of GSL payments made to a third party, the 'Customer'. However, in the case of an 'End-User', it is the Customer, so any GSL payments would be made directly to it. Therefore clause 7.6 would not apply to the case of an 'End-User' and clause 7.6(e) makes this clear.

- Clause 7.8(n) specifies that the credit support provisions will continue to apply to End-Users post the commencement of NECF. This is because these provisions will cease to apply to retailers on the commencement of NECF in Victoria and the Service Provider will rely on the provisions of Division 4 of Part 21 for credit support. However, in the case of End-Users who are not retailers, the Service Provider cannot rely on Division 4 of Part 21 because it does not apply to them (the provisions only apply to 'Retailers' as defined in the NGR).[824]

- Clause 8.2 (b) relates to the provision of information / privacy laws and contemplates that the Service Provider, User and Customer are three separate entities. This clause does not make sense when the User and the Customer are effectively the same entity. This clause should be amended to clarify that it does not apply to End-Users.

- Clauses 9.1(a), 9.2(e), 9.3(f), 9.7(d) and 9.12(f) all address how the Service Provider and the User manage their relationship with the Customer, on the assumption the Customer is a third person. This is not the case with an End-User and the clauses are irrelevant and do not make sense when applied to a Service Provider / End-User relationship. These clauses therefore make clear that these clauses to not apply where a User is acquiring gas as an End-User.

- Clause 9.4(c) clarifies that an End-User must provide the information referred to in clause 9.4(a) in respect of its own consumption.

- Clause 9.8(d) clarifies that clause 9.8 does not apply to the User to the extent it is acquiring Distribution Services from the Service Provider as an End-User. This is because this clause relates to the Service Provider and User's obligations when a person makes a complaint or

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824 See *National Gas (Retail Support) Amendment Rules 2010,* which inserts Part 21, Division 4 into the NGR.

enquiry relating to the Service Provider. It assumes that the person making the complaint is not the User so it does not make sense where the User is an End-User.

- Clause 9.10(a) clarifies that a Service Provider must assign a Reference Tariff to a Distribution Supply Point, including where the User is taking gas as an End-User.
- Clause 9.10(i) clarifies that the End-User is obliged to notify the Service Provider if there are changes to its use of gas such that its existing tariff ceases to be appropriate.
- Clause 11 regulates the procedures a Service Provider must follow before disconnecting a Customer and is written on the assumption the Service Provider, User and Customer are all separate entities. This is not the case for an End-User and clause 11 would be irrelevant where the Service Provider was considering disconnecting an End-User for something it had done wrong (that is the End-User will not be coordinating with the Service Provider about how to disconnect itself because it is in default). The Service Provider must continue to provide services to the End-User until the Agreement is terminated under clause 12 or until a specific right to suspend service arises. Clause 11.6 therefore clarifies that clause 11 does not apply where a User is acquiring gas as an End-User.
- Clause 12.5 provides that the User may terminate the Agreement if it has no Customers. It has been amended to make clear the User may not terminate if it is still taking gas as an End-User.
- Clause 13.2 relates to indemnities provided by the Services Provider to the User against claims by Customers. This clause is not applicable when the User and the Customer are the same entity. Therefore clause 13.2(g) has been added to state that this clause does not apply to the extent that the User is acquiring gas as an End-User.
- Clause 13.5(b) has been inserted to clarify that where the User is taking delivery of Gas as an End-User at a Distribution Supply Point the User indemnifies the Service Provider against any liability incurred by the Service Provider for damage to the Distribution System caused by anyone to whom the User on-supplies the Gas to. As the Service Provider cannot act to prevent damage to the distribution system that is caused by an entity to which an End-User on-supplies gas, the AER considers that this indemnity is appropriate and consistent with the NGO. Clause 13.5(d) provides that the End-User indemnifies the Service Provider where the End-User exceeds its own MHQ. This is important because persons exceeding MHQ pose a significant threat to the ongoing reliability of the distribution system.
- Clause 13.6(c) provides that clause 13.6 applies to End-Users who on-supply gas to another entity. Under clause 13.6 the Service Provider is not liable for costs and damages resulting from failures that are not within the Service Provider's control.
- Clause 15.1(c) has been inserted to clarify that clause 15.1(a) does not apply to End-Users where the law does not require them to hold retail licences / authorisations. (Clause 15.1(a) provides that the User represents and warrants that it holds and will continue to hold the appropriate retail licence /authorisation).

Provision of Distribution Services

The AER does not approve clause 4.1(b)(2) of the SP AusNet's revised proposal.

Clause 4.1(b)(2) of SP AusNet's revised proposal refers to the 'Energy Retail Code'.

The Energy Retail Code (Code) is defined in the proposal as the code of that name under s. 43 of the Gas Industry Act 2001 (Vic). The ESC is currently undertaking consultation about how to harmonise this Code with NECF.[825] The Code will apply until the commencement of NECF in Victoria (which has been delayed). However, the AER understands that the Code will not be applicable after NECF commences in Victoria.[826]

AGL submitted that the Energy Retail Code may not be applicable for the duration of the access arrangement and therefore the reference to the Energy Retail Code should be replaced with the appropriate defined term: 'relevant Regulatory Instrument'.

The AER notes that the definition of Regulatory Instrument in SP AusNet's revised access arrangement proposal encompasses the Energy Retail Code and also NECF.[827] The AER considers that the proposal should be drafted so that it applies following the implementation of NECF in Victoria. Therefore, the AER proposes to replace the reference to Energy Retail Code in clause 4.1(b)(2) with a reference to Regulatory Instruments to make SP AusNet's access arrangement acceptable. The AER considers that this will make it clear that the Energy Retail Code applies until such time as NECF applies once it is implemented in Victoria. This will add clarity and avoid confusion. This is consistent with the NGO because it will promote the efficient operation and use of natural gas services.

Title to Gas

The AER approves clause 4.8.

Clause 4.8 provides that the User must have good title to the gas it injects and indemnify the Service Provider against any loss from a breach of this provision.

AGL queried why an indemnity is included in this clause and why clause 13.5 (indemnity by the user) is not sufficient.[828] AGL notes that the AER did not provide a view on this in its draft decision.

The AER notes that it discussed this clause on page 88 of Part 3 of its draft decision.

As discussed in the draft decision,[829] the general indemnity in clause 13.5 only covers situations where the User causes damages to the distribution system or where a customer withdraws a quantity of gas that exceeds the customer's MHQ. It does not afford an equivalent protection as that provided under clause 4.8, which covers situations where the User causes gas to be injected into the distribution system to which it does not have good title.[830]

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825 See: ESC, *Harmonisation of Energy Retail Codes and Guidelines with the National Energy Customer Framework: Consultation Paper*, December 2012. Available at: http://www.esc.vic.gov.au/getattachment/6e7f7cd5-64a1-46c3-a8f7-467124b3a0f9/Consultation-Paper-Harmonisation-of-Energy-Retail.pdf

826 The Victorian Government's approach to the implementation of NECF is at: http://www.dpi.vic.gov.au/energy/about/legislation-and-regulation/national-energy-customer-framework/the-national-energy-customer-framework-in-victoria

827 Regulatory Instrument is defined in SP AusNet's proposal to mean the Access Act, National Gas Law, National Gas Rules, GIA, Gas Safety Act 1997 (Victoria), the National Energy Retail Law, the National Energy Retail Rules and any other legislation, any subordinate legislation, licence, code, rules, sub-code, guideline, safety case, order or regulation regulating the gas industry in Victoria, or elsewhere if applicable, where made under the GIA or other applicable legislation having jurisdiction over the relevant party, including the Market Rules and Retail Market Procedures (Victoria).

828 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.

829 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, Part 3, p. 94.

830 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, Part 3, p. 94.

The AER considers that this clause acts to protect the Service Provider from risk that could arise if the User did not have good title to the gas it injects. This reduction in risk potentially leads to reduced costs, which is in the long term interests of consumers, an aspect of the NGO.

Disconnection at the request of the user

The AER approves clause 6.2(c).

The AER notes that this is a clause proposed by Multinet for the purposes of managing the End User relationship. The AER has proposed the inclusion of this clause in SP AusNet's terms and conditions.

Clause 6.2(c)(3) provides that clause 6.2(c) does not apply to Distribution Supply Points at which the User is acquiring Distribution Services from the Service Provide as an End-User.

AGL sought justification around why a retailer should be treated differently to any other customer. AGL submitted that it believed if a Service Provider fails to disconnect when it was obliged to so, it should waive its rights, regardless of who the End customer is.[831]

The AER considers that this subclause is appropriate because clause 6.2(c) refers to Customers and End-Users do not have Customers (only retailers have Customers).

Disconnection at the request of the User

The AER approves clause 6.2(j).

Clause 6.2(j) provides that the User indemnifies the Service Provider against all claims arising as a consequence of disconnection of a Customer by the Service Provider pursuant to a disconnection request.

AGL queried why clause 13.5 (Indemnity by the User) isn't sufficient. AGL submitted that if this clause was to remain, the Service Provider should also indemnify the User for any claims that are brought against the User for the Service Provider's actions or omissions. [832]

AGL submitted that the AER did not provide a view in its draft decision.[833]

The AER notes that it discussed this clause on page 91 of Part 3 of its draft decision.

As discussed in the draft decision, the AER does not agree with AGL's proposed deletion of clause 6.2(j).[834] The AER considers that the general indemnity in clause 13.5 only covers situations where the User causes damage to the distribution system or where a customer withdraws a quantity of gas that exceeds the customer's MHQ. It does not afford an equivalent protection as that provided under

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831 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.

832 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.

833 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.

834 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013-31 December 2017, September 2012, Part 3, p. 97.

clause 6.2(j), which covers situations where a claim is brought against the Service Provider as a consequence of a customer disconnection pursuant to a disconnection request.[835]

The AER considers that it is necessary to include clause 6.2(j) to protect a Service Provider where a claim is brought against it for disconnecting a premises pursuant to a request by the User. The AER considers that deleting this indemnity could lead to increased charges by the Service Provider. This would not be in the long term interests of consumers with respect to price, an aspect of the NGO.

This clause deals with disconnection at the request of the user. The indemnity in this clause relates specifically to disconnections at the request of the User. The Service Provider is carrying out an act for and requested by the User. The AER considers that in this context it is appropriate for the Service Provider to be indemnified. The AER considers that the indemnities in this agreement are reasonable and are balanced so that the party best suited to avoid or mitigate risk bears it. There are no broad indemnities of the type proposed by AGL.

Further, the AER considers that Users will not be liable for any acts or omissions by the Service Provider. If such a claim is brought against a User, it will be in a position to raise that it is not the appropriate party to claim against.

Assistance

The AER approves clause 6.5.

Clause 6.5 provides that the User must give to the Service Provider any assistance that the Service Provider reasonably requests in relation to curtailment, interruption, disconnection or reconnection of Customers.

AGL submitted that it is unreasonable for the contract to state that a User 'must' give the service Provider any assistance reasonably requested. AGL contented that any such request should be performed only after it has been agreed to by the User and the Service Provider. Retailers recognise the importance of assisting Service Providers in the maintenance of Supply, and in all cases where a request for assistance is reasonable, a User will perform the actions required. AGL does not consider it necessary to mandate this provision of assistance within the access arrangement, particularly without a giving the User any right of refusal. AGL also believes that the User should have the ability to recover any fair and reasonable costs incurred in the provision of assistance, from the Service Provider.[836]

AGL recommends that 'by agreement' is inserted within this clause.[837]

As discussed in the draft decision, the AER does not consider that clause 6.5 should be amended as proposed by AGL. The AER considers that to ensure that a Service Provider can efficiently operate its network, it should be permitted to request assistance from Users with respect to curtailment, interruption, disconnection or reconnection of customers. The functions are critical to the efficient and safe operation of a Service Provider's network.

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835 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, Part 3, p. 97.

836 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.

837 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.

The AER notes that this clause is limited to the extent that the request must be reasonable. The AER considers that the reference to reasonableness provides sufficient protection to the User as it limits the ambit of the Service Provider's discretion. The AER considers that this clause promotes the efficient operation and use of gas services, aspects of the NGO.[838]

The AER notes that AGL submitted that 'in all cases where a request for assistance is reasonable, a User will perform the actions required'. The AER considers that this supports the argument that it is appropriate that such an obligation to assist, where it is reasonably requested, be included in the proposal (to ensure that such assistance is in fact provided).

Payment and Invoicing for Services—Charges

The AER approves clause 7.1(b) of SP AusNet's revised terms and conditions. Clause 7.1(b) provides that the User is not obliged to pay a specific Charge to the Service Provider in respect of a Customer where that Customer is contractually obliged to pay that Charge directly to the Service Provider.

The AER considers that this amendment is consistent with the NGO because it improves the clarity of the clause which will reduce the probability of disputes. This will promote the efficient operation and use of natural gas services and be in the long term interests of consumers with respect to price.

The AER in its draft decision considered that SP AusNet's original proposal was unclear and that the second part of clause 7.1(b) went beyond the scope of r. 504 of the NGR (which is part of NECF).[839] The AER was concerned that this clause could potentially be inconsistent with NECF once it was adopted in Victoria.[840]

SP AusNet submitted that the purpose of clause 7.1(b) is to provide clarity and certainty that the User (retailer) does not have to pay a charge to the Service Provider in respect of a Customer where the Customer is required to pay that charge directly to the Service Provider.[841]

SP AusNet submitted that the effect of the AER's amendment would be to prevent the Service Provider commencing to bill the retailer on expiry of the direct customer contract. SP AusNet stated that it does not consider that it is desirable to leave uncertain what happens on expiry of a direct customer contract.[842]

In the alternative, SP AusNet replaced the phrase '...has entered into a contract with the Service Provider (which contract has commenced operation) under which the Customer agrees to pay that type of charge...' with the new phrase '...is contractually obliged to pay that Charge..' The AER considers that its drafting, as set out in its draft decision, would not prevent SP AusNet from commencing to bill the retailer. Both drafting options, in effect, would cover a contractual obligation to pay a charge. However, the AER considers that the amended clause proposed by SP AusNet

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838 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, Part 3, pp. 99–100.

839 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 251.
Rule 504(1) provides that 'Where a distributor and a shared customer agree that the customer will be responsible for paying distribution service charges directly to the distributor (a direct billing arrangement), the distributor may issue a bill to that customer for the services provided to that customer's premises. Rule 504(3) provides that 'A retailer has no liability to pay distribution service charges that have been, or are to be, billed to the shared customer under a direct billing arrangement.'

840 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, Part 3, p. 251.

841 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 20.

842 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 21.

provides greater clarity. The AER considers that this clarified wording is consistent with the NGO because it promotes the efficient operation and use of natural gas services.

Distribution services—Invoicing, Payment and Interest

Clause 7.4(g)

The AER approves clause 7.4(g) of SP AusNet's terms and conditions. The AER considers that where metering data is not available it is appropriate and reasonable for the Service Provider to invoice as soon as reasonably practicable after the metering data becomes available.

Clause 7.4(g) deals with situations where Metering Data is not available for a Customer. In certain situations, a Service Provider may either issue an invoice based upon an Estimated Meter Reading or include the charges for that Customer for the unavailable period in a subsequent invoice.

In its draft decision the AER considered that clause 7.4(g) of the initial proposal did not specify when a new invoice would be issued when metering data was not available. The AER's draft decision required invoicing no later than the second period after the Metering Data becomes available. [843]

SP AusNet submitted that it did not adopt the AER's required revision because it would require an invoice to be provided within 4 weeks of the data becoming available for those retailers with two weekly billing cycles. SP AusNet submitted that it is its policy and the basis of its billing systems and processes, to avoid, where possible, billing customers on estimated reads.[844]

SP AusNet submitted that this policy is to ensure that bills are based on verified data and correctly assigned tariffs and customer parameters.[845] SP AusNet submitted that whilst generally this approach does not delay billing longer than a month after data is available, there are a few scenarios, applicable in a small number of cases, where billing of a retailer may be delayed more than 4 weeks after data is received.[846]

SP AusNet gave the example where a new connection for a large customer has been established in SP AusNet's data system and meter but for which the details of tariff parameter are still being finalised and entered into SP AusNet's billing system.[847] SP AusNet submitted that another situation may be where the data obtained in the first read of a customer is inconsistent with the information provided with a new connection and discussion regarding this data and the appropriate tariffs are required.[848]

SP AusNet therefore proposed that the Service Provider be required to invoice as soon as reasonably practicable after the metering data becomes available. SP AusNet submitted that this will provide a basis for retailers to raise concerns regarding unexplained delays in billing, but ensure that SP AusNet has discretion in a small number of cases to avoid potential rebilling by delaying billing to ensure that it has a rigorous basis.[849]

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843 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 253.
844 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 23–24.
845 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 23–24.
846 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 23–24.
847 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 24.
848 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 23–24.
849 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 25.

The AER considers that the phrase 'as soon as reasonably practicable' imposes an objective element to prevent unreasonably delay. This is consistent with the NGO as it will increase efficiency and reduce costs..

Given that there may be a small number of cases where an invoice cannot be issued within 4 weeks after the data is received, the AER approves SP AusNet's revised proposal.

Clause 7.4 (j)

The AER approves clause 7.4(j) of SP AusNet's revised proposal.

Clause 7.4(j) of SP AusNet's revised proposal states that '...the User must pay the amount specified in each invoice rendered to it in accordance with this Agreement within 10 Business Days from the date specified on the invoice.'

AGL submitted that it is concerned that the date of issue specified on the statement of charges will not always align with the date the invoice is sent or received by the User.[850] AGL considers that the drafting of this clause may have unintentionally limited the amount of time a User will have to pay and consequently, to dispute, an invoice.[851] AGL has therefore proposed that the due date for the invoice be 10 Business Days from the date that the statement of charges is first sent to the User (rather than from the date specified on the invoice).[852]

The AER considers that providing for 10 business days from the date of the statement of charges creates certainty. Amending this clause as proposed by AGL could potentially lead to uncertainty. This is because it would not be clear when the statement was actually sent. The AER considers that uncertainty such as this would not promote the efficient operation and use of natural gas services.

Customer communications

Clause 9.1(j) provides that:

> The User is responsible for providing Customers with information relating to any interruption or curtailment or irregularity in the supply of Gas which is caused by factors upstream of the Distribution System or caused by the act or omission of the User

The AER proposes amendments to clause 9.1(j) to make SP AusNet's access arrangement acceptable.

In submissions on SP AusNet's original access arrangement proposal, Origin stated that this clause is not relevant to the haulage agreement and is unnecessary as upstream outages and shortages of supply are managed via AEMO and Energy Safe Victoria across the whole industry.[853]

In its draft decision the AER approved clause 9.1(j).[854]

The AER has reassessed clause 9.1(j). The AER considers that this clause comprises two requirements:

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850 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 7 January 2012, Attachment A.

851 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 7 January 2012, Attachment A.

852 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 7 January 2012, Attachment A.

853 Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 6.

854 AER, Draft decision, SP AusNet access arrangement proposal, part 3, p. 109.

- To notify customers of interruption or curtailment of supply caused by factors upstream of the distribution system
- To notify customers of interruption or curtailment of supply caused by an act or omission by the User.

With respect to the first requirement, the AER considers that these are factors that relate to the relationship between the User and a producer or transmission service provider. They do not relate to the distribution system or the provision of reference services by SP AusNet. Accordingly, they are not relevant to the terms and conditions on which reference services will be supplied.[855] For this reason, the AER considers that it is inappropriate to include such a requirement in the access arrangement.

With respect to the second requirement, the AER considers that the User is best placed to inform customers of delays or curtailment arising from its acts or omissions. The AER considers that such an obligation acts to keep customers informed and provides for the party responsible for the delay or curtailment to inform the customers.

Customer details

The AER approves clause 9.4(a)(8).

Clause 9.4(a)(8) provides that in respect of each Customer the User must provide for a typical 24 hour operation the estimated loads expected for each hour of that day.

AGL submitted that it was concerned that under this clause, Multinet and SP AusNet are requesting a retailer to provide 'for a typical 24 hour operation the estimated loads expected for each hour of that day.' AGL submitted that in its view this requirement is not consistent with the National Gas Objective, as it may result in the placing of unnecessary costs and impacts on all participants, including customers.[856]

AGL submitted that the existing (B2B) Customer Details Transactions do not contain a relevant field or even the ability to communicate the information being sought, from the retailer to the distributor.

AGL does not consider that access arrangements are the correct forum within which this information can be requested. Changes to transactions should be discussed at AEMO working groups to develop an acceptable solution between Industry Participants. This transaction will not only require Industry Participants to amend information technology systems, but will also require changes to the transaction which is sent between Industry Participants.[857]

AGL submitted that, clause 9.4(a)(8) should be removed.[858]

The AER does not agree with AGL's proposed deletion of clause 9.4(a)(8).

The AER considers that it is reasonable for the Network User to provide an estimate of loads to the Service Provider. This subclause was included in the previous access arrangement and only requires

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855 NGR. 48(1)(d)(ii).
856 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 8 January 2013, Attachment A.
857 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 8 January 2013, Attachment A.
858 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.

the retailer to provide an estimated load for a customer's 'typical 24 hour day' rather than an estimate for each 24 hour period. If the Network Users look at how much gas is typically consumed by its customers the retailer is likely to be able to estimate how much gas its customers are likely to consume in a typical 24 hour period (noting this may vary significantly depending on the season).

Assignment of and changes in reference tariffs

The AER approves clause 9.10(b) of SP AusNet's revised terms and conditions.

The AER in its draft decision concluded that the Service Provider should be required to advise the User of changes to the Reference Tariffs within two business days of the Regulator advising the Service Provider that the changes have been verified as compliant.[859] The AER considered that this requirement would ensure that the User is notified in a timely manner of changes to Reference Tariffs. It will also ensure that where the User is a retailer, it is able to prepare new retail prices and satisfy its own notification requirements to customers. The AER considered that this is consistent with the NGO as it would promote the efficient operation and use of natural gas services.[860]

SP AusNet has adopted the AER's revision requiring the Service Provider to advise the User of changes to Reference Tariffs within two business days of the Regulator advising the Service Provider that the changes have been verified as compliant.

However, SP AusNet submitted that the words 'use all reasonable endeavours to' should be inserted before the words 'notify the User within two business days' to avoid a situation where an unavoidable delay triggers an automatic breach.[861]

The AER approves this revision as reasonable given that a circumstance may arise where it is impossible to notify the User of the change within two business days. The AER considers that providing such a clause promotes the efficient operation and use of natural gas services, aspects of the NGO.

Force majeure notice

The AER approves SP AusNet's deletion of clause 10.3(b) of its initial proposal.

The AER, in its draft decision, did not approve clause 10.3(b) of SP AusNet's proposed terms and conditions. Clause 10.3(b) provided that where a Regulatory Instrument required SP AusNet to give a force majeure notice (e.g. s. 100 under the NERR) and the circumstances requiring that notice are likely to constitute a Force Majeure Event, SP AusNet could issue a notice that complies with the requirements of the regulatory Instrument and is not required to issue a separate notice under clause 10.3(a).

The AER considered that where a r. 100[862] notice (unplanned interruption) is intended to act as a force majeure notice, the Service Provider should make this clear in the notice.[863] The AER also considered that such a notice should contain the same details as a force majeure notice. The AER

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859 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 257.
860 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 256.
861 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 29.
862 NERR, r. 100.
863 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 257.

considered that this requirement would make it clear that the notice was issued to comply with two separate obligations. The AER considered that this would make it clear to the recipient of the notice that it was served two purposes.[864]

SP AusNet submitted that it does not have any issue with the AER's required amendment.[865] However, SP AusNet submitted that it would be preferable to simply delete proposed clause 10.3(b) in its entirety and leave the obligation on the parties to notify each other of a force majeure event. SP AusNet submitted that this is a clearer way forward than trying to amalgamate a force majeure notice within a regulatory requirement that does not yet exist and which in any event is intended to achieve a different purpose.[866]

The AER considers that this amendment addresses the AER's concerns in relation to the initial proposal. The approach suggested by SP AusNet will reduce the likelihood of disputes and is therefore in the long term interests of consumers with respect to price. The AER notes that Multinet has made the same change to its proposal.[867]

Service Provider's indemnity to the User

The AER approves clause 11.3.

Clause 11.3 provides that the Service Provider shall indemnify the User against Claims arising from, or incurred by the User as a consequence of, any action taken by the User under this clause 11 to enforce the Service Provider's rights at the request of the Service Provider, except to the extent that the Claim arises from the negligent or reckless act or omission of the User or from any breach or non-observance by the User of this Agreement or the Regulatory Instruments.

AGL submitted that it queries why clause 13.5 (Indemnity by the User) isn't sufficient. AGL submitted that if this clause was to remain, the Service Provider should also indemnify the User for any claims that are brought against the User for the Service Provider's actions or omissions. AGL submitted (incorrectly) that the AER did not provide any view upon this in their Draft Determination. AGL therefore requests that the AER review this clause during this current round of consultation.[868]

As discussed in the draft decision, the AER considers that clause 11.3 benefits the User. This clause requires the Service Provider (SP AusNet) to indemnify the User (e.g., AGL).[869]

Clause 13.5 relates to indemnities the User gives to the Service Provider and therefore benefits the Service Provider. Accordingly, clause 11.3 is not covered by clause 13.5. Each clause requires a different party to provide an indemnity.

The AER considers that it is reasonable for the Service Provider to indemnify the User against any loss the User incurs as a result of enforcing the Service Provider's rights. If this indemnity was not in place, the User could suffer loss as a result of enforcing the Service Provider's rights. This loss would

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[864] AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 257.
[865] SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 30.
[866] SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 31.
[867] SP AusNet, Revised Access arrangement proposal, Part C, clause 10.3.
[868] AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.
[869] AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, Part 3, p. 110

be likely to be passed on to consumers. This would not be in the long term interests of consumers with respect to price, an aspect of the NGO. Therefore, the AER considers that it should be retained.

Indemnity by the User

SP AusNet's proposed amendment to clause 13.5(c) provides that:

> The User indemnifies the Service Provider against any:
>
> (c) revenue which, by virtue of clause 508(1) of the National Gas Rules, the Service Provider is unable to collect because of the User s failure to issue invoices to Customers in accordance with the requirements of good industry practice (unless that failure was in turned caused by the Service Provider's failure to comply with good industry practice).

The AER does not approve this proposal.

In its draft decision, the AER did not approve clause 13.5(c)[870] because this clause would allow SP AusNet to circumvent the operation of r. 508(1) of the NGR once NECF is adopted in Victoria.[871]

In its revised proposal, SP AusNet submitted that r. 508(1) of the NGR could operate to prevent the Service Provider recovering legitimate charges from a User where the User is not permitted to recover those charges from its customer due to its own act or omission. For instance, if there were a delay in invoicing. SP AusNet submitted that this scenario is not what r. 508(1) of the NGR was intended to cover, but is a real possibility due its drafting.[872]

SP AusNet submitted:[873]

> The intention of clause 13.5(c) is to provide that the User must compensate the Service Provider for lost revenue where the User is not permitted to charge a customer due to the fault of the User. It (clause 13.5(c)) does not prevent the operation of r. 508(1) but instead addresses the consequences where the User activates that rule due to a default.

SP AusNet submitted that it has therefore redrafted clause 13.5(c) to provide that it is only activated where the User has not issued its own invoices in accordance with good industry practice (and so denying the Service Provider the opportunity to recover its revenue).

SP AusNet submitted that its proposal is consistent with the NGO and that it is not consistent with the NGO that a Service Provider be exposed to a permanent loss of revenue by an act or omission of the User and be denied any means of recovering this. SP AusNet submitted that such a consequence threatens the quality and security of supply because it jeopardises the ability of the Service Provider to recover its efficient costs.[874]

Origin submitted that it does not support amendments that would allow SP AusNet to recover revenue from retailers that the retailers are precluded from recovering from their customers under the energy law or rules.

The AER considers r. 508 of the NGR explicitly prevents distributors from recovering distribution service charges from retailers, that retailers are not permitted to recover from shared customers under

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870 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 258.
871 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, pp. 258–259.
872 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 33.
873 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 33.
874 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 34–35.

the NERL or the NERR. The AER acknowledges the arguments raised by SP AusNet, but considers that Parliament has expressed its clear intention.

The AER notes that in response to the Second Exposure Draft of the National Energy Customer Framework, energy distributors raised concerns that[875]

> ...distributors should be able to recover amounts from the retailer where the undercharge was caused by the retailer or customers [sic] act or omission, regardless of whether the retailer can recover the amount from the customer.

The Ministerial Council on Energy Standing Committee of Officials responded:[876]

> Not agreed. Distributors cannot recover amount from retailers which retailers are not permitted to recover from customers.

Only minor changes were made to r. 508 of the NGR since the second exposure draft.[877]

Accordingly, the AER does not approve inclusion of clause 15.5(c) as redrafted by SP AusNet.

Exemption of liability

The AER approves clause 13.6(b)(8) of SP AusNet's revised proposal.

Clause 13.6(b) provides that:

> (b) A Party (First Party) is not liable to the other Party (Second Party) for:
>
> (1) any loss of revenue or profit suffered or incurred by the Second Party;
>
> (2) any special loss suffered or incurred by the Second Party;
>
> (3) any indirect loss suffered or incurred by the Second Party;
>
> (4) any liability incurred by the Second Party to a third party (other than a Customer);
>
> (5) any additional expenses suffered or incurred by the Second Party under any gas purchase contract or haulage agreement (other than this Agreement),
>
> whether arising due to the First Party's breach of this Agreement, tortious (including negligent) act or omission or any other act or omission of any nature whatsoever provided that nothing in this clause 13.6(b) limits:
>
> (6) any liability the First Party has to reimburse the Second Party for liability the Second Party incurs to a Customer under the National Energy Retail Law or under clause 13.2 of this Agreement;
>
> (7) the scope of, or liability under, any indemnity in this Agreement;
>
> (8) the User's obligation to pay to the Service Provider Charges and any other amounts (for example GST) payable by the User under this Agreement;
>
> (9) the User's liability for breach of clause 4.7(a).

The AER in its draft decision concluded that no change was required to clause 13.6(b) of SP AusNet's initial proposal.

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875 Ministerial Council on Energy Standing Committee of Officials, MCE Energy Market Reform Bulletin No. 183, 10 September 2010: Responses to Key Issues Raised by Stakeholders on the Second Exposure Draft of the National Electricity Customer Framework, Attachment 1, page 28, Item 16

876 Ministerial Council on Energy Standing Committee of Officials, MCE Energy Market Reform Bulletin No. 183, 10 September 2010: Responses to Key Issues Raised by Stakeholders on the Second Exposure Draft of the National Electricity Customer Framework, Attachment 1, page 28, Item 16

877 See Ministerial Council on Energy Standing Committee of Officials, National Energy Customer Framework Second Exposure Draft Explanatory Material, 27 November 2009, page 11.

AGL queried the necessity of this new sub-clause. AGL submitted that it appears to limit previous indemnities and liabilities.[878]

AGL submitted that the AER did not provide any view upon this in their Draft Determination. AGL therefore requests that the AER review this clause during this current round of consultation.[879]

The AER notes that it discussed clause 13.6(b) on page 106 of Part 3 of its draft decision.

Clause 13.6(b) operates to exclude consequential loss, except in limited circumstances.

As discussed in the draft decision, the AER does not agree with AGL's interpretation of clause 13.6(b). Sub-clause 13.6(b)(7) specifically provides that nothing in clause 13.6(b) limits the scope of, or liability under, any indemnity in this Agreement. The AER therefore does not consider that clause 13.6(b) would operate to limit previous indemnities and liabilities under the access arrangement terms and conditions, as stated by AGL.[880] The AER considers that clause 13.6(b) should be included in the access arrangement terms and conditions, as it is common industry practice to exclude indirect or consequential liability under a haulage agreement. The AER notes that clause 13.6(b) applies reciprocally. The AER also notes that a similar exclusion of liability clause was included in the Jemena and Envestra access arrangements.

The AER therefore considers clause 13.6(b) to be consistent with the NGO, as it reflects current industry practice, which in turn promotes the efficient operation of natural gas services.

Amendment to the Agreement

The AER does not approve clause 19.2(b) of SP AusNet's revised terms and conditions. The AER proposes amendments to clause 19.2(b) to make SP AusNet's access arrangement acceptable.

The AER considers that, subject to any other agreement between the Service Provide and the User, it is desirable for the haulage agreements to be updated to reflect updated Reference Tariffs following an access arrangement review. The AER considers that this provides clarity about which terms and conditions apply at any given time and avoids the need to manually update each haulage agreement. This would likely reduce disputes and cost and is therefore in the long term interests of consumers with respect to price, an aspect of the NGO.

The AER in its draft decision did not approve clause 19.2(b) of SP AusNet's initial proposal because it restricted the ability of parties to negotiate and limited their commercial flexibility.[881] The AER considered that this could impede competition at a retail level and was therefore, in the AER's view, not consistent with the NGO.[882]

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878 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.

879 AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 7 January 2013, Attachment A.

880 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 112.

881 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 261.

882 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 261.

Origin submitted that it supports the AER's amendment whereby SP AusNet must seek approval from the network user before it changes the terms of the agreement over terms and conditions and acknowledges SP AusNet's amendment in this respect.[883]

In its revised proposal SP AusNet has revised clause 19.2(b) to state that 'It is the intention of the Service Provider and the User that the terms of this Agreement reflect so far as possible the Reference Service Terms.' SP AusNet submitted that it is both desirable and necessary for the terms and conditions on which pipeline services are provided to correspond so far as possible to the relevant Reference Tariffs approved by the AER through the access arrangement review process.[884]

SP AusNet submitted that the Reference Tariffs are based on a number of factors, including the terms on which Services are provided. Therefore, SP AusNet submitted that if Reference Tariffs change at an access arrangement review, but haulage agreements do not change, the Users are getting a Reference Tariff that is not applicable to the terms and conditions they have in place with Service Providers.[885]

SP AusNet submitted that the revised clause makes it clearer in the drafting that, whilst the intention is for the haulage agreements to reflect the access arrangements terms and conditions, this is always subject to the User and Service Provider negotiating terms outside the framework. SP AusNet submitted that this approach addresses the principal concerns of both the AER and SP AusNet, as well as being consistent with s. 322 of the NGL and the NGO.[886] SP AusNet submitted that this is designed to avoid any confusion as to which terms and conditions are in effect between Users and Service Providers and also avoids mechanically having to update each haulage agreement.[887]

The AER considers that it is important that the parties have the flexibility to adopt different terms if they choose. In particular, the parties may not want their agreement (or particular clauses in that agreement) to be updated automatically. The AER considers that the parties should be free to expressly agree on clauses that will not be automatically updated.

For this reason, the AER considers that clause 19.2(b) should be amended to provide that the terms and conditions will be varied in accordance with any new access arrangement approved by the AER, except for clauses that expressly provide that they will not be varied or clauses where the parties agree in writing that the variation will not apply. The AER considers that this approach is consistent with the NGO because it balances commercial flexibility with the interconnection between terms and conditions, and tariffs.

Commercial matters

Origin referred to clauses 7.3 (d), 7.3 (e), 8.2, 9.1(j) and 13.3(b)(8).

Origin submitted that the AER has determined that these matters are best left to commercial negotiation between the parties. Origin questions whether this is a workable approach to the regulation of monopoly assets.[888]

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883 Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 7 January 2013, p. 5.
884 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 39.
885 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 39–40.
886 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 40–41.
887 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 40–41.
888 Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 8 January 2013, p. 4.

Origin understands that the AER is seeking to move to more of a collaborative approach to the negotiation of terms and supports greater collaboration in principle. Origin welcomes in particular the AER's finding that nothing in the rules precludes a distributor from negotiating terms with individual retailers that differ from the overall access arrangement.

Origin stated that in its experience distributors have at times asserted that the rules preclude negotiation of different terms, since this would create preferential treatment for one user or would create retailer specific rates.[889]

Origin supports flexibility but does not support an approach where the AER leaves significant terms (such as the details of terms of payment) up to negotiation between service providers and users where negotiation in the workshop has proven unsuccessful. If commercial negotiation was sufficient to resolve points of difference over haulage terms then the current costly open access regime currently in place would be superfluous. The balance of interests between service providers and users is such that the service provider can refuse an amendment and the user has no choice but to accept this. This leaves little scope for genuine negotiation. While a service provider has from time to time conceded on minor points, it has little incentive to concede on any point of commercial significance, and perhaps cannot be expected to do so within the existing rules framework.[890]

For these reasons, Origin considers that investigating differences of opinion between service providers and users about haulage terms and adjudicating on these rules remains a primary responsibility of the AER under the NGL and NGR. Origin considers that terms noted in the draft decision as left to commercial negotiation should be those whose agreement has already been reached in the course of workshops.[891]

The AER in its draft decision did not limit its consideration to whether terms and conditions, including those referred to by Origin, were 'commercial matters'. Instead, the AER made an assessment about the consistency of each proposed clause with the NGO. The AER considers that this approach is consistent with the requirements of the NGL and NGR.[892]

The AER's assessment of each of the clauses referred to by Origin, and as previously set out in its draft decision, is summarised below:

1. In relation to sub-clauses 7.3(d) and (e), the AER approved SP AusNet's clause on the basis that it is consistent with the NGO to include provisions for GST. Beyond this, the AER concluded that it remained open to Origin to seek amendments.

2. In relation to clause 8.2, the AER approved SP AusNet 's clause on the basis that it is consistent with the NGO taking into account that retailers are presently able to follow the process set out in that clause. Beyond this, the AER concluded that it remained open to Origin to seek amendments.

3. In relation to clause 9.1(j), the AER has proposed amendments to make SP AusNet's access arrangement acceptable. See the discussion under clause 9.1(j), above.

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889 Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 8 January 2013, p. 4.

890 Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 8 January 2013, p. 4.

891 Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement revised proposals, 8 January 2013, p. 4.

892 Application by WA Gas Networks Pty Ltd (No 3) [2012] ACompT 12 (8 June 2012) para 276.

4. In relation to clause 13.3(b)(8), the AER considered that the inclusion of GST as an example did not affect the operation of the clause. Beyond this, the AER noted that it remained open to Origin to seek the exclusion of the GST example through its negotiations.

In effect, the AER determines whether the proposal is consistent with the NGO. What is approved by the AER therefore will provide the fundamental basis and be sufficiently comprehensive to establish the requirements for accessing the reference services, subject to any further negotiations between the parties.

13.3 Queuing arrangements

Queuing arrangements can be used to determine access to a pipeline that is fully, or close to being fully utilised.

13.3.1 AER decision

The AER approves clause 5.5 of Part A of SP AusNet's revised proposal.

13.3.2 Assessment approach

The AER's assessment approach is set out in 12.3.3 in chapter 12 of part 2 of the draft decision.

13.3.3 Reasons for decision

The AER in its draft decision did not accept SP AusNet's queuing arrangements.

The AER noted that SP AusNet's distribution pipelines are managed by AEMO on a daily basis under Part 19 of the NGR and queuing arrangements are therefore unnecessary (there is no queue). However, the AER required SP AusNet to relabel clause 5.5 of Part A of its access arrangement proposal from 'Queuing policy' to 'New connections and modifications' to clarify that this clause relates to new connections rather than queuing arrangements.[893]

SP AusNet adopted the AER's draft decision to relabel clause 5.5. However, SP AusNet's revised proposal also slightly amended the wording of clause 5.5.1 to say 'These queuing arrangements are applicable to requests for new Connections or modifications to existing Connections and are subject to the Extensions and Expansions Policy.'

This reworded clause 5.5.1 is not substantively different than before (previously the clause referred to a 'queuing policy' rather than 'queuing arrangements') and the AER approves this change.

13.4 Capacity trading requirements

13.4.1 Final decision

The AER approves SP AusNet's capacity trading requirements.

13.4.2 Revised access arrangement proposal

SP AusNet has revised its access arrangement proposal in accordance with the AER's draft decision which required it to state that:

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[893] AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 264.

There are no applicable capacity trading requirements for the purposes of Rules 48(1)(f) or Rule 105(1) of the NGR.

13.4.3 Assessment approach

The AER's assessment approach is set out in section 12.2.3 in chapter 12 of part 2 of the draft decision.

13.4.4 Reasons for the decision

SP AusNet has adopted the change required by the AER. SP AusNet's access arrangement now provides that there are no applicable capacity trading requirements.

13.5 Extension and expansion requirements

13.5.1 Final decision

The AER does not approve clause 5.6.1 of Part A of SP AusNet's revised proposal. The AER considers that it is more appropriate and cost efficient to define 'high pressure pipeline' as 1050 kPa rather than 140 kPa as proposed by SP AusNet.

13.5.2 Revised access arrangement proposal

SP AusNet questioned the appropriateness of the AER making determinations for high pressure pipeline expansions. SP AusNet made the amendments proposed by the AER in its draft decision. SP AusNet provides that all low and medium pressure expansions will be covered. High pressure expansions will be subject a determination by the AER. SP AusNet proposed that high pressure be defined as anything beyond 140 kPa.

13.5.3 Assessment approach

The AER's assessment approach is set out in 12.4.3 in chapter 12 of part 2 of the draft decision

13.5.4 Reasons for decision

The AER considers that it is consistent with the NGO for all low and medium pressure expansions to be covered. This avoids regulatory inefficiency resulting from frequent applications for small extensions. Providing for the AER to determine coverage of high pressure extensions avoids costs that would arise from applications relating to small changes to low pressure extensions. If SP AusNet was required to apply for low pressure extensions, this would necessitate frequent applications. This would increase the administrative costs faced by SP AusNet. Requiring approval of expansions to low pressure pipes would not be in the long term interests of consumers with respect to price as it would require more frequent applications with respect to pipes that were not potentially contestable. The AER considers that specifying a definition of high pressure minimises uncertainty.

In reaching this decision, the AER has below considered the role of the National Competition and Consumer Commission and the definition of a high pressure pipeline.

Role of National Competition and Consumer Commission / AER

The AER's draft decision required all low and medium pressure pipeline extensions to be covered by default. The draft decision also required SP AusNet to notify the AER whenever it builds a high pressure pipeline extension to its distribution network. The proposed mechanism provided for the AER to decide on a case-by-case basis whether the high pressure pipeline extension should be

covered by the access arrangement.[894] The AER considered that these changes would promote the efficient use of and operation of gas services, while promoting the long term interests of consumers with respect to price, each an aspect of the NGO.[895]

In its revised proposal, SP AusNet submitted that it is concerned that it is the National Competition Council (NCC) rather than the AER that is empowered to make coverage determinations in respect of pipelines. SP AusNet submitted it is concerned that the AER's proposal could result in dual regulation and confusion over roles.[896] However, SP AusNet submitted that it does see advantages to the AER's proposal, subject to their being clarity on how the regulatory arrangements between the AER and the NCC are to work.[897]

The AER notes that:

- Section 18 of the NGL provides that certain extensions or expansions will form a part of a covered pipeline if the extension and expansion requirements under the access arrangement provide for this.
- Rule 48(1)(g) of the NGR provides that a full access arrangement must set out the extension and expansion requirements.
- Rule 104(1) of the NGR provides that the extension and expansion requirements in an access arrangement may state whether the access arrangement will apply to 'incremental services'[898] to be provided as a result of a particular extension or expansion of the pipeline or allow for the later resolution of that question.

The AER therefore considers that SP AusNet's access arrangement can and should require SP AusNet to notify the AER and the AER to decide on a case-by-case basis whether a high pressure extension to an existing covered pipeline should be covered by the access arrangement.[899] The AER considers that this provision is distinct from the role of the NCC, which makes recommendations on the coverage of natural gas pipes[900] (rather than extensions and expansions to existing gas pipelines).

Definition of high pressure

In its revised proposal, SP AusNet submitted that there should be a definition of 'high pressure' in clause 5.6.1. SP AusNet submitted that under the Victorian Gas Distribution Code, high pressure means anything above 140 KpA and SP AusNet does not build extensions at a lower pressure than this.[901] SP AusNet submitted that it considered that, for clarity, it is important the extensions/ expansions policy defines what is meant by high pressure . SP AusNet's preference is to define high pressure by reference to the Gas Distribution System Code. [902]

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896 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 7.
897 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, pp. 7–8.
898 'Incremental services' means pipeline services provided by means of an extension or expansion of the pipeline.
899 This is consistent with previous AER decisions, for example: For example: AER, Jemena Gas Network draft decision, February 2010, pp. 348–350; AER, ActewAGL draft decision, November 2009, pp. 185–186; AER, Country Energy draft decision, November 2009, pp. 140–141. Envestra Ltd Access arrangement proposal for the SA gas network 1 July 2011–30 June 2016, draft decision, June 2011, pp. 241–245.
900 Sections 92-96, NGL
901 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 8.
902 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 8.

SP AusNet therefore proposed to adopt the AER's proposed extensions / expansions policy provided it contained the following additional provision: 'For the purposes of this clause high pressure has the meaning in the Distribution System Code.'[903]

The AER considers that it is appropriate to define a 'high pressure pipeline'. However, the AER considers that it would be inappropriate to set the definition at 140KpA. SP AusNet stated that this is the lowest pressure threshold that it builds distribution pipelines. To define 'high pressure' as 140KpA would require SP AusNet to submit an application to the AER every time it built a pipeline extension. This would include extensions that are relatively minor and which could never be used in a way akin to a transmission pipeline or as a viable bypass option.

The AER also notes that the other Victorian gas distributors have proposed defining a high pressure pipeline as 1050 KpA. The AER notes that this is the maximum pressure for a 'High Pressure 2' pipeline under the Victorian Gas Distribution Code.[904] For consistency and to minimise the number of applications (and expenditure) the AER considers that 1050 KpA is an appropriate definition for a high pressure pipeline in clause 5.6.1 of SP AusNet's proposal. The AER considers this would reduce the administrative cost associated with the application process to SP AusNet. The AER considers that the incurrence of costs in applying to the AER in relation to extensions that are less than 1050 KpA would not be consistent with the NGO. Saving this expenditure would be in the long term interests of consumers with regards to price.[905]

Effect of Extensions / Expansions on Reference Tariffs

The AER notes that following the draft decision it considered the possible inclusion of certain assumptions in SP AusNet's extension and expansion requirements. The intention was for such assumptions to apply for the purpose of rule 119M(2)(c) of Part 12 of the NGR which is to commence on the implementation of NECF.[906] Rule 119M concerns the connections charges criteria and any assumptions included in an access arrangement would assist in determining the appropriate connection charge. Such assumptions may be about, for example, the connection assets required, the discount rate or the expected life of the connection. The AER sought to include the following assumptions:

For Tariff V and Tariff D customers, the discount rate as 'the pre tax real WACC included in the distributor's approved access arrangement'.

For Tariff V customers, for the expected life of the connection, an assumption of 20 years for domestic customers and 15 years for commercial industrial customers with the qualification that a different life for commercial and industrial customers may be used if there are grounds to consider that the life of the connection may be less than 15 years.

For Tariff D customers, for the expected life of the connection, an assumption of 15 years, although a different life may be used if there are grounds to consider that the life of the connection may be less than 30 years.

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903 SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 8.

904 Essential Services Commission, Victorian Gas Distribution Code, http://www.esc.vic.gov.au/getattachment/21ffea1a-d308-4baa-9d8d-4589fd999e08/Gas-Distribution-System-Code-version-9.pdf, p. 37.

905 NGL, s. 23.

906 Part 12A was added to the NGR to regulate the connection process and how DNSPs may charge for new connections. This part is included in the National Gas (Retail Connection) Amendment Rules 2010.

Currently such assumptions are included in Schedule 2 to the Gas Distribution System Code (Victoria) (Code) but the intention is for the Code to cease to apply on commencement of NECF.

The AER sought comment from SP AusNet, and the other gas distribution businesses, on the need to include the assumptions as set out above.[907]

The AER notes that SP AusNet specifically sought inclusion of more assumptions than had been proposed by the AER because 'without firm rules on how these will be determined, there could be disputes with customers and so SP AusNet would request that they be included.'[908] Multinet also agreed subject to amendments being made to the AER's draft provision, to the inclusion of certain assumptions for the purpose of r 119M.[909]

However, both Multinet and SP AusNet expressed concern that it was late in the AER's decision making process to make this substantial change to the access arrangement.[910] To achieve a satisfactory outcome would require further consultation on possible amendments to the drafting.

Envestra did not agree to inclusion of assumptions for the following reasons.[911]First, it maintained that it would be inappropriate to preserve elements of the Victorian Gas Distribution System Code when on the commencement of NECF it is the intention for the Code to no longer apply. Second, it submitted that Schedule 2 of the Victorian Gas Distribution System Code is not relevant to the extension and expansion policy. Moreover, Schedule 2 covers the same ground as Part 12 of the National Gas Rules and this is why the Victorian Government has deemed that Schedule 2 (and the remainder of the Code) will no longer apply when NECF commences in Victoria. Furthermore, Envestra notes that under Part 12 of the National Gas Rules, the AER will approve Envestra's connection charges under model standing offers for connection services. That is, this provides a further degree of oversight by the AER.

The AER has considered Envestra's submission but considers that the inclusion of assumptions would provide greater certainty around the calculation of connection charges. Moreover, rule 119M(2)(c) specifically allows for their inclusion.

Nonetheless, taking into account the need for further consultation, at this stage the AER has determined not to include any assumptions in the 2013–17 access arrangements for each of the distributors. Further consultation is required in order to fully assess what assumptions should be included in access arrangements and to draft any such amendment to an access arrangement.

13.6 Change of Receipt or Delivery Point

13.6.1 Final decision

The AER approves SP AusNet's terms for changing receipt or delivery points.

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907 AER information request Fd20a, 20 February 2013.
908 SP AusNet, email dated 1 March 2013.
909 SP AusNet, email dated 1 March 2013; Multinet, email dated 28 February 2013.
910 SP AusNet, email dated 1 March 2013; Multinet, email dated 28 February 2013.
911 Envestra, response to information request Fd17a, 27 February 2013.

13.6.2 Revised access arrangement proposal

SP AusNet has proposed the same terms and conditions for changing the receipt or delivery point from those approved by the AER in its draft decision.[912]

13.6.3 Assessment approach

The AER's assessment approach is set out in section 12.5.3 in chapter 12 of part 2 of the draft decision.

13.6.4 Reasons for decision

SP AusNet has not changed its terms and conditions for changing the receipt or delivery point as those approved by the AER in its draft decision. The AER approves those terms and conditions for the reasons set out in its draft decision.[913]

13.7 Review dates

13.7.1 AER decision

The AER does not approve clause 5.9.1 of Part A of SP AusNet's revised proposal. The AER proposes a revisions submission date of 1 January 2017.

The AER approves SP AusNet's revision commencement date of 1 January 2018.

13.7.2 Assessment Approach

The AER's assessment approach is set out in 12.6.3 in chapter 12 of part 2 of the draft decision.

13.7.3 Reasons for decision

The AER is required to accept a Service Provider's proposed review submission and commencement dates if these are made in accordance with the general rule set out in r. 50 of the NGR.[914] The AER may however approve dates that do not conform to the general rule if it is satisfied that the dates are consistent with the NGO and the revenue and pricing principles.[915]

The AER's draft decision concluded that SP AusNet's proposed revisions commencement date should be approved but not its review submission date.[916]

The AER required SP AusNet to amend the review submission date set out in clause 5.9.1 of Part A of its proposal so that SP AusNet would be required to submit to the AER revisions to its access arrangement on or before 1 January 2017.[917]

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912 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 267.

913 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 267.

914 NGR, r. 50(2).

915 NGR, r. 50(4).

916 The general rule in r. 50 of the NGR is that a review submission date will fall 4 years after the access arrangement took effect or the last revision commencement date; and a revision commencement date will fall 5 years after the access arrangement took effect or the last revision commencement date.

917 AER, Draft decision, SP AusNet access arrangement proposal for 1 January 2013 – 31 December 2017, September 2012, p. 269. For the purpose of determining the revision commencement date, the 'last revision commencement date' is 1 January 2013.

SP AusNet's revised proposal did not adopt the review submission date required by the AER. SP AusNet submitted that this is on the basis that moving the review submission date from 30 March 2017 to 1 January 2017 will not avoid the need for a 6 month tariff adjustment. This is because the AER will not make its final decision in time for the annual November tariff adjustment.[918] SP AusNet submitted that if the review submission date is to be moved it is most efficient to move it to a date where the annual tariff adjustment reflects the AER's final decision and avoid the need for a 6 month within year tariff adjustment. SP AusNet therefore proposed a review submission date of 1 October 2016.[919] SP AusNet submitted that this earlier date will help promote efficiency and is consistent with the NGO.[920]

The AER acknowledges that the Service Provider is unlikely to have time to publish and implement the tariffs for 2018 between the publication of the AER's final decision and the intended commencement of the new access arrangement (on 1 January 2018). However, if this circumstance arises, this issue may be addressed via the operation of r 92(3).

Taking this into account, the AER therefore considers that consistent with the general principle in r. 50(1) the review submission date should be 1 January 2017, which is 4 years from the last review commencement date.

13.8 Revisions

The AER proposes the following revisions to make SP AusNet's access arrangement acceptable:

Revision 12.1: Amend the access arrangement as follows:

Part C

Insert clause 3A into the revised access arrangement as follows:

3A How this Agreement applies where the User is an End-User

To the extent that the User is acquiring Distribution Services from the Service Provider as an 'End-User' then all references in this Agreement to the 'Customer' will be read as a reference to the User taking delivery of Gas at the Distribution Supply Points at which it is an End-User (and to the extent required to give meaning to the relevant provisions the User will be regarded as operating in two separate capacities: a 'User' of the Distribution Services provided by the Service Provider and a 'Customer' taking delivery of the Gas distributed by those Distribution Services to the relevant Distribution Supply Points).

The User is to be taken as acquiring Distribution Services from the Service Provider as an End-User where Distribution Services are being provided to the User to distribute Gas to a Distribution Supply Point at which the Gas will be either:

consumed by the User; or

further transported through an embedded distribution network before being supplied to premises for consumption (being premises that are connected to that embedded distribution network and not directly connected to the Distribution System); or

[918] SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 14.
[919] SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 14.
[920] SP AusNet, *Access arrangement information*, 9 January 2012, RAAP Chapter 9: Non-tariff components, p. 14.

provided by the User to other persons who consume the Gas after it has passed through the Distribution Supply Point and where the provision of that Gas by the User to those persons does not require the User to hold a Retail Licence (or, if that legislation has come into force in Victoria, a Retailer Authorisation under the National Energy Retail Law).

Without limiting the application of clause 3A(a) that clause means (where the User is acquiring Distribution Services as an End-User):

where a clause of this Agreement refers to the User ensuring the Customer does something, the clause must be interpreted so as to require the User to do that thing; and

where a clause of this Agreement refers to the User providing details in respect of a Customer, the clause must be interpreted so as to require the User to provide those details in respect of its own consumption at the relevant Distribution Supply Point.

Provisions in specific clauses of this Agreement providing how this Agreement applies to the User in its capacity as an End-User do not limit the application of this clause 3A to other provisions of this Agreement.

To avoid doubt, persons to whom the User on-supplies Gas which is taken by the User as an 'End-User' at a Distribution Supply Point are not Customers for the purposes of this Agreement.

Where the User is acquiring Distribution Services as an End-User then the User warrants to the Service Provider that:

where the User is providing Gas to other persons, the User holds all relevant licences and exemptions to entitle it to lawfully do so;

where the User is the owner or operator of an embedded distribution network, the User holds all relevant licences and exemptions to entitle it to lawfully (as applicable) own or operate that embedded distribution network and will ensure that such embedded distribution network is operated safely and in accordance with all applicable laws and good industry practice;

the User will ensure that all pipe work, Gas Installations and other equipment, downstream of the Distribution Supply Point, through which Gas will be transported before it is used or which utilise Gas will be operated safely and in accordance with all applicable laws and good industry practice.

Nothing in this Agreement entitles the User to connect an embedded network to the Distribution System. If the User wishes to connect such an embedded network to the Distribution System it must make an application to the Service Provider, in accordance with all applicable Regulatory Instruments, and enter into a connection agreement with the Service Provider.

Revision 13.2: Add the following to clause 4.1:

(d) Clause 4.1(c) does not apply to the extent the User is not acquiring Distribution Services as a 'retailer', as that term in Part 21 of the National Gas Rules.

Revision 13.3: Amend clause 4.3(a) to read as follows:

(a) the time at which AEMO transfers financial responsibility for the Customer's MIRN from the User to another Gas Retailer or (unless the User is (by virtue of it taking Gas as an End-User) the Customer) to the Customer directly;

Revision 13.4: Add the following to the end of clause 4.7(d):

(and where a Distribution Supply Point is being used by the User as an 'End-User' ensure that there is not withdrawn a Quantity of Gas at that Distribution Supply Point in any hour which exceeds the Customer MHQ at that Distribution Supply Point).

Revision 13.5: Add the following to clause 6.2(c):

(3) this clause 6.2(c) does not apply to Distribution Supply Points at which the User is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.6: Add the following to the end of clause 7.1(c):

;and all Distribution Services acquired by the User as an End-User.

Revision 13.7: Add the following after the end of the words 'whose meters were due to be read in the period of the invoice' in clause 7.4(e):

(including where the User is acquiring Distribution Services from the Service Provider as an End-User where the User's meter(s) was due to be read in the period of the invoice)

Revision 13.8: Add the following to clause 7.6:

(e) This clause 7.6 does not apply to the extent that the User is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.9: Add the following to clause 7.8:

(n) Despite the commencement of the operation of Division 4 of Part 21 of the National Gas Rules in Victoria, if and to the extent that Division does not apply to Charges payable by the User where it is acquiring Distribution Services from the Service Provider as an End-User, then this clause 7.8 will continue to apply to such Charges and the User must, subject to the provisions of this clause 7.8, provide a Bank Guarantee as credit support for the payment of those Charges.

Revision 13.10: Add the following to the end of clause 8.2(b):

This clause 8.2(b) does not apply to the extent the User is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.11: Add the following to the end of clause 9.1(a):

This clause 9.1 does not apply to the User to the extent it is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.12: Amend clause 9.1(j) as follows:

Delete the following phrase between the words 'caused' and 'by':

by factors upstream of the Distribution System (e.g. an interruption or curtailment in the supply of Gas by Gas producers due to faults in or failures of the Gas producers' production facilities) or caused

Revision 13.13: Add the following to the end of clause 9.2:

(e) This clause 9.2 does not apply to the User to the extent it is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.14: Add the following to clause 9.3:

(f) This clause 9.3 does not apply to the User to the extent it is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.15: Add the following to clause 9.4:

(c) In respect of Distribution Services acquired by the User from the Service Provider as an End-User the User must provide to the Service Provider the information referred to in this clause 9.4 in respect of the User's own consumption and usage of Gas at the Distribution Supply Points at which it acquires Distribution Services as an End-User.

Revision 13.16: Add the following to clause 9.7:

(d): This clause 9.7 does not apply to the User to the extent it is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.17: Add the following to clause 9.8:

(d) This clause 9.8 does not apply to the User to the extent it is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.18: Amend clause 9.10(a) as follows:

Add the following after the words 'or may be withdrawn by or in respect of a Customer':

(including the User where taking Gas as an End-User)

Revision 13.19: Add the following at the end of clause 9.10:

(i) In respect of Distribution Supply at which the User takes Gas as an End-User then the User must advise the Service Provider as soon as is practicable after becoming aware of any change in circumstances, use, consumption, demand characteristics or connection characteristics of any such point which may require the Service Provider to assign another Reference Tariff to the usage of Gas at that Distribution Supply Point or which may result in the End-User, at a Distribution Supply Point, no longer satisfying the conditions relating to the Reference Tariff currently applying to it at that Distribution Supply Point.

Revision 13.20: Add the following to clause 9.12:

(f) This clause 9.12 does not apply to the User to the extent it is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.21: Add in clause 11.6 as follows:

11.6 Non-Application to User as End-User

This clause 11 does not apply to the User to the extent it is acquiring Distribution Services from the Service Provider as an End-User and to avoid doubt does not apply to disconnection of any Distribution Supply Points at which the User takes Gas as an End-User.

Revision 13.22: Amend clause 12.5 as follows:

After the words 'in respect of whom the User requires Distribution Services under this Agreement' add the following words:

and the User is not taking Gas as an End User

Revision 13.23: Add the following to clause 13.2:

(g) This clause 13.2 does not apply to the User to the extent it is acquiring Distribution Services from the Service Provider as an End-User.

Revision 13.24: Add the following to clause 13.5 (and renumber the subsequent subclauses accordingly):

(b) where the User is taking Gas as an End-User at a Distribution Supply Point, liability incurred by the Service Provider for damage caused, by anyone to whom the User on-supplies the Gas delivered at that Distribution Supply Point, to the Distribution System.

Revision 13.25: Delete clause 13.5(c) and add the following to clause 13.5 as new 13.5(c):

(c) for Distribution Supply Points used by the User as an End-User, penalty, damages, costs, expenses or losses resulting due to the User withdrawing at a Distribution Supply Point in any hour a Quantity of Gas exceeding the Customer's MHQ at that Distribution Supply Point; and

Revision 13.26: Add the following to clause 13.6:

(c) For the avoidance of doubt, this clause 13.6 applies where the User is acquiring Distribution Services as an End-User, including where an End-User on-supplies Gas to another entity.

Revision 13.27: Add the following to clause 15:

(c) Clause 15.1(a) does not apply to the extent the User is not required by applicable Regulatory Instruments to hold, as applicable, a Retail Licence or Retail Authorisation.

Revision 13.28: Amend clause 4.1(b) to replace 'Energy Retail Code' with 'relevant Regulatory Instrument'.

Revision 13.29: Amend clause 19.2(c) as follows:

It is therefore agreed that if there is any change to the Reference Service Terms then the terms of this Agreement will, subject to any agreement in writing between the parties, and excluding clauses that state that they are not subject to this clause 19.2(c), be automatically amended (without the requirement for the parties to execute any form of documentation) such that they are same as the Reference Service Terms.

Revision 13.30: Amend clause 5.6.1 of Part A as follows:

Delete the final paragraph and replace it with:

For the purposes of this clause, High Pressure means 1050kPa.

Revision 13.31: Amend clause 5.9.1 of Part A as follows:

Delete '1 October 2016' and replace it with '1 January 2017'.