

Access Arrangement draft decision

Envestra Ltd

2013–17

Part 2

Attachments

September 2012

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Shortened forms

|  |  |
| --- | --- |
| Shortened form | Full title |
| 2008-12 access arrangement | Access arrangement for Envestra effective from 1 January 2008 to 31 December 2012 inclusive |
| 2008-12 access arrangement period | 1 January 2008 to 31 December 2012 inclusive |
| 2013-17 access arrangement period | 1 January 2013 to 31 December 2017 |
| 2018-22 access arrangement | Access arrangement for Envestra effective from 1 January 2018 to 31 December 2022 inclusive |
| ACCC | Australian Competition and Consumer Commission |
| AER | Australian Energy Regulator |
| access arrangement information | Envestra Limited, Access arrangement information, 30 March 2012 |
| access arrangement proposal | Envestra Limited, Access arrangement proposal, 30 March 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 |
| Envestra | Envestra Limited (ACN 078 551 685) |
| Envestra Albury | Envestra’s distribution network in Albury, NSW and surrounding regions |
| Envestra Victoria | Envestra’s distribution network in Victoria |
| 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 |
| WACC | weighted average cost of capital |

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1. Pipeline Services

The NGR includes a number of requirements with respect to:

* identifying the pipeline which the access arrangement relates to[[1]](#footnote-1) and
* the services which Envestra proposes to offer to provide by means of that pipeline.[[2]](#footnote-2)
  1. AER's draft decision

The AER considers that Envestra 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 ancillary reference services but does not approve its proposed reference services.

* 1. Envestra's proposal

In clause 2 of its access arrangement proposal, Envestra proposes two reference services: a volume haulage service and a demand haulage service.[[3]](#footnote-3) The volume haulage service is split between residential and non-residential. The allocation between these two services is made on the basis of the purpose for which 50 percent or more of the gas delivered to that delivery point was used. The services are defined by reference to the type of delivery point they relate to. Delivery points are separately defined as demand delivery points or volume delivery points. A demand delivery point is defined by reference to the maximum volume of gas delivered. A volume delivery point is defined as a delivery point that is not a demand delivery point.

* Clause 2.4 provides that a negotiated service is a service that is different to a reference service and that any User or Prospective User may request a negotiated service.
  1. Assessment approach

In its access arrangement proposal Envestra is required to specify all reference services.[[4]](#footnote-4) A reference service is a pipeline service that is likely to be sought by a significant part of the market.[[5]](#footnote-5) A pipeline service is a:

* service provided by means of a pipeline, including a:
* haulage service
* service facilitating the interconnection of pipelines
* service ancillary to one of these services.[[6]](#footnote-6)
* A reference service must also be consistent with the NGO.[[7]](#footnote-7)

The AER's approach to assessing these requirements involves first identifying the covered pipeline that will be regulated through the access arrangement. This involves identifying:

* the covered pipeline under the earlier access arrangement
* any extensions or expansions that were completed during the earlier access arrangement and which are taken to be 'covered' under that access arrangement's extension and expansion requirements.

After identifying the covered pipeline the next step is to describe the pipeline services and reference service that will be regulated through the access arrangement. It is then possible to:

* calculate the reference tariff
* determine the other non-tariff terms and conditions which will form part of the access arrangement.[[8]](#footnote-8)
  1. Reasons for decision

Identification of the pipeline

The AER assessed whether Envestra appropriately identified the pipeline to which the access arrangement relates.[[9]](#footnote-9) Envestra identified the pipeline in clause 1 of the access arrangement proposal. Clause 1 references a map that is contained in Annexure A. The AER considers that this annexure sufficiently identifies the geographical area covered by Envestra's gas distribution network. Clause 1 also references a website at which a description of Envestra's Victorian gas distribution network can be found.

Description of the pipeline services

The AER considers that the pipeline services that Envestra proposes to offer are adequately described. Envestra has described the pipeline services being offered as reference services, ancillary reference services and negotiated services in clause 2 of its access arrangement proposal.

Reference services

The AER does not approve Envestra's proposed reference services. The AER requires Envestra to amend its proposed reference services in accordance with revisions 1 and 2.

The AER is concerned with the qualification that a volume haulage service and a demand haulage service is only available to Network Users that hold a retail authorisation issued under Part 5 of the National Energy Retail Law. The AER considers that these services should not be restricted to network users that hold a retail authorisation. The AER considers that access to Envestra's network may be sought by parties that do not hold a retail authorisation. Envestra's proposed definition would exclude these parties from receiving reference services.

The AER does not consider that it is consistent with the NGO and r. 48(1)(c) of the NGR to limit the service offered to network users who hold a retail authorisation. The Purpose of r. 48(1)(c) is to specify the reference service, not who the service will be available to. The proposed services should be available to all access seekers. The AER considers that the focus of r. 101(2) is on whether a significant part of the market is likely to seek the service, not the category of person the service will be made available to. Accordingly, the AER does not consider that the reference services should contain the proposed qualification.

Further, the National Energy Retail Law (NERL) is part of the NECF reform package and has not been adopted in Victoria yet. Accordingly, until NECF is adopted, it is not possible for a party to hold a retail authorisation under Part 5 of the NERL.

The AER requires the qualification that 'the Demand Haulage Service and Volume Haulage Service (as applicable) is only available to Users who hold a retail authorisation issued under Part 5 of the National Energy Retail Law' be removed from the definition of a Demand Haulage Service and a Volume Haulage Service.

The AER considers that consistency with the NGO requires a mechanism for the re-assessment or re-allocation of the classification of a delivery point. As clause 2.2.3 is drafted, Envestra is provided with a broad discretion. The AER considers that this discretion is not in the long term interests of consumers with respect to price, an aspect of the NGO. The AER considers that this clause should be amended to provide for a network user to request a re-classification of a delivery point and to specify when the re-classification commences from.

The AER’s draft decision is based on the current definitions of a reference service and rebateable service.  These definitions are currently the subject of a proposed rule change.[[10]](#footnote-10) The AEMC is presently considering whether any rule change is to take effect for the purposes of the review of the Victorian gas access arrangements for 2013-17.[[11]](#footnote-11) In the event that the AEMC determines in its 1 November 2012 final rule determination that the rule change is to apply to the current review, Envestra may need to take this into account when revising its proposal if the rule change affects its proposal.

Ancillary reference services

The ancillary reference services proposed by Envestra are consistent with those in the current access arrangement.

The AER considers that the proposed ancillary reference services are likely to be sought by a significant part of the market. It is possible that there are other services that may also be sought by a significant part of the market. However, submissions received by the AER did not address whether there are any services provided by Envestra that are not included as ancillary reference services, but are services that are likely to be sought by a significant part of the market. As a result, there is insufficient evidence before the AER to find that any such services are ancillary reference services.

The AER received submissions from AGL and Origin on ancillary reference services.[[12]](#footnote-12) Concerns in the submissions were general in nature. The submissions did not identify any specific services not currently provided as ancillary reference services which the submitting party considered should be included as ancillary reference services

AGL's submission stated that there did not appear to be any logical reason why some services are included in the definition of ancillary reference services, while others are excluded. AGL included meter and gas installation testing as an example of what it considers is the inconsistent approach taken by the three distribution businesses. AGL did not state whether it believes meter and gas installation tests are accessed by a significant part of the market, and whether these tests should be included in the definition of ancillary reference services.

AGL stated that its preference is to include services that can only be performed by the monopolistic service providers in the definition of ancillary reference services.[[13]](#footnote-13)

The AER notes AGL's preference. However, AGL does not provide a list of specific ancillary services that it believes are likely to be sought by a significant part of the market and should therefore be included as ancillary reference services.

Origin also submitted that the definition of ancillary and excluded (negotiated) services is not consistent across the three distribution businesses. Origin proposes that the definitions be made consistent. Origin submits that all monopoly services other than standard haulage services should be defined as ancillary.[[14]](#footnote-14) However, Origin’s submission does not specify exactly what services it believes are likely to be sought by a significant part of the market.

* + 1. Non reference services

Non reference services (negotiated or excluded services) are outside the scope of an access arrangement. Therefore, the AER’s decision in respect of Envestra's access arrangement proposal does not extend to such services.

Envestra's proposal defines negotiated services as a network service that is not a reference service.[[15]](#footnote-15) Envestra provides a process for negotiating negotiated services.[[16]](#footnote-16) No specific negotiated services are listed by Envestra.

An access arrangement is required to contain pipeline services that are reference services.[[17]](#footnote-17) If a service is unlikely to be sought by a significant part of the market, it will not be a reference service– it will be a negotiated or excluded service.

AGL submitted that excluded or negotiated services charges are becoming less transparent and more arbitrary. It considers that the number of disputes between service providers and retailers about negotiated services has increased in recent years. AGL submitted that after it questioned the veracity and reasonableness of certain negotiated service charges with one service provider, the service provider threatened to withdraw its services unless AGL signed an excluded services agreement.

AGL submitted that service providers have little incentive to perform distribution services in a timely manner (as they exclude their liability). Further, since third parties do not provide some of those services, AGL claims that retailers have no option but to accept the service provider’s quoted negotiated service charges. AGL submitted that negotiated services should therefore be listed and their corresponding fees included in the access arrangement.[[18]](#footnote-18)

AGL has not provided specific details of any negotiated or excluded services that it considers would be sought or likely to be sought by a substantial part of the market i,e. reference services or ancillary services. In the absence of any specific examples, the AER is unable to assess whether there are any such services.

In reaching its final decision, the AER will consider any submissions it receives in response to this draft decision. This includes submissions about further possible reference services or ancillary reference services. If a party making submissions considers that there are such services, it should give reasons why it considers they are likely to be sought by a significant part of the market.

In the absence of further evidence, the AER will monitor these non reference services, the associated revenues, and demand during the access arrangement period. The AER will reconsider whether such services should be part of the reference service, ancillary reference services, or additional reference services, at the next access arrangement review.

* 1. Revisions

Revision 1: Amend clause 2.2.1 of the access arrangement proposal as follows:

Delete the final paragraph which reads:

The Volume Haulage Service is only available to Users who hold a retail authorisation issued under Part 5 of the National Energy Retail Law.

Revision 2: Amend clause 2.2.2 of the access arrangement proposal as follows:

Delete the final paragraph which reads:

The Demand Haulage Service is only available to Users who hold a retail authorisation issued under Part 5 of the National Energy Retail Law.

Revision 3: Amend clause 2.2.3 of the access arrangement proposal as follows:

Delete the final paragraph and insert the following

A classified DP will retain its classification for the purposes of this Access Arrangement (and for the purposes of each Agreement) until such time as it is re-classified by Envestra. The Reference Tariff applicable in respect of the DP will be determined from time to time on the basis of the classification of the DP.

If either the Network User or the Shared Customer requests the reclassification of a DP, Envestra must within 10 business days consider whether the DP should be re-classified, taking into account (a) and (b). Where a DP is re-classified, Envestra must determine the applicable Reference Tariff

Revision 4: Amend clause 6.4 of the access arrangement proposal as follows:

Delete the following phrase:

In addition, if a User, or Prospective User, wishes to obtain the Volume Haulage Service or the Demand Haulage Service then the User or Prospective User must hold a retail authorisation issued under Part 5 of the National Energy Retail Law.

1. Capital base

The capital base roll forward accounts for the value of Envestra'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 (for example, 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 Envestra'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 Envestra's projected capital base for the 2013–17 access arrangement period. This attachment presents the AER's draft decision on these matters.

* 1. Draft decision

The AER does not approve Envestra's proposed opening capital bases as at 1 January 2013 of:

* Envestra Victoria—$1116.3 million ($nominal)
* Envestra Albury—$35.2 million ($nominal).

This is because the AER considers that some of Envestra's inputs into the capital base roll forward model (RFM) do not comply with the NGR.[[19]](#footnote-19) These include:

* Envestra's proposed indexation of the capital base
* Envestra's revised estimate for capex in 2012
* minor amendments to ensure consistency with historical regulatory accounts.

After adjusting these inputs, the AER has determined opening capital bases as at   
1 January 2013 of:

* Envestra Victoria—$1109.7 million ($nominal)
* Envestra Albury—$34.6 million ($nominal).

Table 2.1 and table 2.2 summarise the AER's draft decision on the roll forward of Envestra's capital base during the 2008–12 access arrangement period.

* + - * 1. AER's draft decision on capital base roll forward for Envestra Victoria during the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2008 | 2009 | 2010 | 2011 | 2012 |
| Opening capital base | 984.5 | 1005.9 | 1014.4 | 1030.0 | 1059.9 |
| Net capex | 55.5 | 46.2 | 56.8 | 73.7 | 95.6a |
| Less: depreciation | 34.1 | 37.8 | 41.1 | 43.8 | 45.8 |
| Closing capital base | 1005.9 | 1014.4 | 1030.0 | 1059.9 | 1109.7 |
| Opening capital base at 1 January 2013 |  |  |  |  | 1109.7 |

Source: AER analysis.

(a) The AER has approved 2012 capex values equal to the ESC's benchmark capex, adjusted for actual growth. This is consistent with the ESC's capex incentive scheme and is discussed in section 2.4.2.

* + - * 1. AER's draft decision on capital base roll forward for Envestra Albury during the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2008 | 2009 | 2010 | 2011 | 2012 |
| Opening capital base | 35.3 | 35.6 | 35.6 | 35.6 | 35.2 |
| Net capex | 1.5 | 1.3 | 1.3 | 1.1 | 0.8 |
| Less: depreciation | 1.2 | 1.3 | 1.3 | 1.4 | 1.5 |
| Closing capital base | 35.6 | 35.6 | 35.6 | 35.2 | 34.6 |
| Opening capital base at 1 January 2013 |  |  |  |  | 34.6 |

Source: AER analysis.

The AER approves some aspects of Envestra's proposal to determine the opening capital base as at 1 January 2013. These include:

* the opening capital base at 1 January 2007, which is consistent with the value adopted in the ESC's further final decision for the 2008–12 gas access arrangement review
* the use of forecast depreciation as set by the ESC.

Based on the approved opening capital bases and the AER's draft decisions on forecast capex, depreciation, and inflation, the AER has determined projected closing capital bases as at 31 December 2017 of:

* Envestra Victoria—$1375.1 million ($nominal)
* Envestra Albury—$37.1 million ($nominal).

Table 2.3 and table 2.4 set out the projected roll forward of the capital bases during the   
2013 –17 access arrangement period.

* + - * 1. AER's draft decision on projected capital base roll forward for Envestra Victoria during the 2013–17 access arrangement period   
           ($million, nominal)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Opening capital base | 1109.7 | 1177.6 | 1247.7 | 1295.1 | 1346.6 |
| Net capex | 79.9 | 84.5 | 65.6 | 72.5 | 51.7 |
| Less: depreciation | 39.8 | 43.8 | 49.4 | 53.3 | 57.0 |
| Indexation | 27.7 | 29.4 | 31.2 | 32.4 | 33.7 |
| Closing capital base | 1177.6 | 1247.7 | 1295.1 | 1346.6 | 1375.1 |

Source: AER analysis.

* + - * 1. AER's draft decision on projected capital base roll forward for Envestra Albury during the 2013–17 access arrangement period   
           ($million, nominal)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Opening capital base | 34.6 | 35.1 | 35.8 | 36.2 | 36.4 |
| Net capex | 1.1 | 1.3 | 1.2 | 1.1 | 1.7 |
| Less: depreciation | 1.4 | 1.5 | 1.7 | 1.8 | 1.9 |
| Indexation | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| Closing capital base | 35.1 | 35.8 | 36.2 | 36.4 | 37.1 |

Source: AER analysis.

* 1. Envestra's proposal

Envestra proposed adopting opening capital bases as at 1 January 2008 of:

* Envestra Victoria—$822.1 million ($2006).[[20]](#footnote-20) This included an increase of $15.4 million from the previous access arrangement review. The increase was included to reflect the difference between the ESC's approved capex for 2007 and actual capex for 2007.
* Envestra Albury—$29.4 million ($2006).[[21]](#footnote-21) This included a reduction of $0.1 million from the previous access arrangement review. The increase was included to reflect the difference between the ESC's approved capex for 2007 and actual capex for 2007.

Based on the opening capital bases as at 1 January 2008 and the roll forward of the capital bases in the 2008–12 access arrangement period, Envestra proposed opening capital bases as at 1 January 2013 of:

* Envestra Victoria—$1116.3 million ($nominal), as shown in .
* Envestra Albury—$35.2 million ($nominal), as shown in table 2.6.
  + - * 1. Envestra's proposed capital base roll forward for Victoria during the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2008 | 2009 | 2010 | 2011 | 2012 |
| Opening capital base | 984.5 | 1005.9 | 1014.4 | 1030.0 | 1059.9 |
| Net capexa | 55.5 | 46.2 | 56.8 | 73.7 | 95.3 |
| Less: depreciation | 34.1 | 37.8 | 41.1 | 43.8 | 45.8 |
| Closing capital base | 1005.9 | 1014.4 | 1030.0 | 1059.9 | 1109.4 |
| Six months CPI adjustment |  |  |  |  | 6.9 |
| Opening capital base at 1 January 2013 |  |  |  |  | 1116.3 |

Source: Envestra, Roll forward model, March 2012.

(a) Envestra's proposed net capex amounts are equal to gross capex less customer contributions.

* + - * 1. Envestra's proposed capital base roll forward for Albury during the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2008 | 2009 | 2010 | 2011 | 2012 |
| Opening capital base | 35.2 | 35.5 | 35.6 | 35.5 | 35.1 |
| Net capex | 1.5 | 1.3 | 1.3 | 1.1 | 1.4 |
| Less: depreciation | 1.2 | 1.3 | 1.3 | 1.4 | 1.5 |
| Closing capital base | 35.5 | 35.6 | 35.5 | 35.1 | 35.0 |
| Six months CPI adjustment |  |  |  |  | 0.2 |
| Opening capital base at 1 January 2013 |  |  |  |  | 35.2 |

Source: Envestra, Roll forward model, March 2012.

* + 1. Capital expenditure in the 2008–12 access arrangement period

Envestra indicated it has incurred capex in the 2008–12 access arrangement period of:

* Envestra Victoria—$311.8 million ($nominal)[[22]](#footnote-22)
* Envestra Albury—$6.3 million ($nominal)[[23]](#footnote-23).

These amounts included actual capex from 2007–11, and Envestra's 'best estimate' of actual capex for 2012.

Envestra proposed that these amounts conform to the NGR requirements and should be included in the opening capital bases for the 2013–17 access arrangement period as set out in and table 2.8. The capex proposed under each category driver is discussed in more detail in attachment 3.

* + - * 1. Envestra's proposed conforming capital expenditure for Victoria during the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
| Mains and services | 39.9 | 31.5 | 44.1 | 58.8 | 75.8 | 250.1 |
| Meters | 10.5 | 8.4 | 9.3 | 9.4 | 12.5 | 50.1 |
| Land and buildings | – | – | – | – | – | – |
| SCADA | 0.3 | 0.1 | 0.2 | 0.2 | 0.2 | 1.1 |
| Computer equipment | 0.2 | 0.2 | 0.5 | 0.2 | 0.3 | 1.3 |
| Other assets | 4.6 | 6.0 | 2.7 | 5.0 | 6.5 | 24.9 |
| Total net capex | 55.5 | 46.2 | 56.8 | 73.7 | 95.3 | 327.5 |

Source: Envestra Victoria, Roll forward model, March 2012.

* + - * 1. Envestra's proposed conforming capital expenditure for Albury during the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
| Mains and services | 0.7 | 0.8 | 0.5 | 0.7 | 0.9 | 3.7 |
| Meters | 0.5 | 0.3 | 0.6 | 0.2 | 0.2 | 1.8 |
| Land and buildings | – | – | – | – | – | – |
| SCADA | – | – | – | – | – | – |
| Computer equipment | – | – | – | – | – | – |
| Other assets | – | – | – | – | – | – |
| Total net capex | 1.3 | 1.1 | 1.1 | 0.9 | 1.1 | 5.5 |

Source: Envestra Albury, Roll forward model, March 2012.

* + 1. Adjustment to the capital base for inflation in the 2008–12 access arrangement period

Envestra proposed to roll forward its capital bases in real 2006 dollar terms, and then apply a CPI adjustment to determine the opening capital bases as at 1 January 2013. Specifically, Envestra proposed to apply 6.5 years of actual inflation to index the opening capital base from real 2006 dollars to real 2012 dollars for insertion into the post-tax revenue model (PTRM). It has in determined the 6.5 years of actual inflation as:

* six years using annual changes in September–September CPI[[24]](#footnote-24)
* an additional half year using the change between September 2011 CPI and March 2012 CPI to arrive at an opening capital base as at 1 January 2013.[[25]](#footnote-25)

Envestra proposed that applying an additional six months of CPI to the closing capital bases for 2012 was necessary to convert the closing asset values to be consistent with the AER's nominal framework.

* + 1. Depreciation in the 2008–12 access arrangement period

Envestra proposed to depreciate its capital bases in the roll forward for the 2008–12 access arrangement using forecast straight-line depreciation, as approved by the ESC in its 2008–12 gas access arrangement review.[[26]](#footnote-26)

* + 1. Projected capital base over the 2013–17 access arrangement period

Envestra proposed projected closing capital bases as at 31 December 2017 of:

* Envestra Victoria—$1886.1 million ($nominal)[[27]](#footnote-27)
* Envestra Albury—$40.9 million ($nominal).[[28]](#footnote-28)

The projected roll forward of the capital bases during the 2013–17 access arrangement period is shown in and table 2.10. Envestra has included in its capital base projection:

* forecast inflation of 2.50 per cent per annum[[29]](#footnote-29)
* forecast straight-line depreciation, which is discussed in more detail in attachment 5. However, Envestra proposed to use actual depreciation to determine the roll forward of the opening capital bases at the next access arrangement review for the 2018–22 access arrangement period.[[30]](#footnote-30)
  + - * 1. Envestra's proposed projected capital base roll forward for Victoria during the access arrangement period ($million, nominal)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Opening capital base | 1116.3 | 1275.1 | 1463.2 | 1606.3 | 1757.3 |
| Net capex | 172.4 | 205.0 | 164.1 | 174.8 | 155.3 |
| Less: depreciation | 41.5 | 48.8 | 57.5 | 64.0 | 70.4 |
| Indexation | 27.9 | 31.9 | 36.6 | 40.2 | 43.9 |
| Closing capital base | 1275.1 | 1463.2 | 1606.3 | 1757.3 | 1886.1 |

Source: Envestra, Victoria access arrangement information, March 2012, p. 144.

* + - * 1. Envestra's proposed projected capital base roll forward for Albury during the access arrangement period ($million, nominal)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Opening capital base | 35.2 | 36.6 | 38.0 | 39.0 | 39.6 |
| Net capex | 1.8 | 2.0 | 1.7 | 1.4 | 2.3 |
| Less: depreciation | 1.4 | 1.5 | 1.7 | 1.8 | 1.9 |
| Indexation | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 |
| Closing capital base | 36.6 | 38.0 | 39.0 | 39.6 | 40.9 |

Source: Envestra, Albury access arrangement information, March 2012, p. 128.

* 1. Assessment approach

The AER is required to consider the transitional provisions of the NGR in relation to the assessment of Envestra's proposals. This is because Envestra's access arrangements for the 2008–12 access arrangement period were ongoing when the new access regime came into force.[[31]](#footnote-31) Rule 79 of the NGR provides that actual or forecast capex (new facilities investment) approved by a Relevant Regulator under section 8.21 of the National Gas Code is taken to be a decision by the AER that the capex conforms with the new capex criteria.[[32]](#footnote-32)

The AER's approach to assessing Envestra's projected capital bases is consistent with that in previous gas decisions reviewed under the NGR.[[33]](#footnote-33) In accordance with rr. 77(2) and 78 of the NGR, the AER applied three steps to calculate the projected capital base:

* First, the AER confirms the value of the opening capital base for the first year of the 2008–12 access arrangement period (in this case, 1 January 2008). Typically, this requires the AER to make an adjustment to account for any difference between actual and estimated capex in the final year of the previous access arrangement period (in this case, 2007). This adjustment is also subject to any changes made in the AER's assessment of conforming capex for that year.
* Second, the opening capital base as at 1 January 2008 is rolled forward to determine the closing capital base as at 31 December 2012. This closing capital base is also used as the value of the opening capital base for the access arrangement period as at 1 January 2013. This involves:[[34]](#footnote-34)
* adding conforming actual capex for each year—this requires assessing the capex and determining that it is consistent with the provisions of the 2008–12 access arrangement and historical regulatory accounts
* removing forecast depreciation for each year based on the approach approved for the 2008–12 access arrangement
* removing any capital contributions during the 2008–12 access arrangement period
* adding any speculative capex or redundant assets that were reused during the   
  2008–12 access arrangement period
* removing any redundant assets and disposals during the 2008–12 access arrangement period
* indexing the roll forward each year for actual inflation.
* Third, the capital base is projected over the 2013–17 access arrangement period by rolling forward the opening capital base as at 1 January 2013 to 31 December 2017. This involves taking the opening capital base:[[35]](#footnote-35)
* adding forecast conforming capex for each year
* removing forecast depreciation for each year
* removing the forecast value of assets to be disposed of during the 2013–17 access arrangement period
* indexing the capital base each year for forecast inflation.
  1. Reasons for draft decision

The AER considers Envestra's proposed inputs into the capital base roll forward overstate the value of the opening capital bases at 1 January 2013 and consequently the projected closing capital bases as at 31 December 2017. The AER considers these inputs are not consistent with r. 77(2) and r. 73 of the NGR respectively. In particular, the AER considers:

* Envestra's proposed inflation of the capital base will result in six months of unnecessary additional CPI adjustment. This will overstate the value of the opening capital bases as at 1 January 2013.
* The ESC's capex incentive scheme should apply in full to 2012 capex, but Envestra has not applied the ESC's approach.
* Envestra's initial conforming net capex amounts were for some years inconsistent with its audited historical regulatory accounts.[[36]](#footnote-36)
* Envestra's proposed forecast capex and depreciation inputs used to roll forward the projected capital bases for the 2013–17 access arrangement period need to be amended. The AER considers that these proposed inputs do not meet the requirements of the NGR (see attachments 3 and 5 respectively).

The AER has also made other minor amendments to the roll forward of Envestra's capital bases, which are discussed in the following sections. These amendments are individually necessary for consistency with relevant NGR requirements. The AER's detailed assessment follows.

* + 1. Opening capital base in the 2008–12 access arrangement period

The AER approves Envestra's proposed opening capital bases as at 1 January 2008 of:

* Envestra Victoria—$984.5 million ($2012)
* Envestra Albury—$35.2 million ($2012).

These amounts include the AER's adjustment to the ESC's approved opening capital bases for the difference between forecast and actual capex for 2007. The AER approves Envestra's proposed adjustments to the opening capital bases to reflect actual capex for 2007. The AER considers its draft decision therefore meets the requirements under the NGR.[[37]](#footnote-37)

* + 1. Conforming capital expenditure in the 2008–12 access arrangement period

The AER's assessment of conforming capex is set out in attachment 3. In determining the opening capital bases as at 1 January 2013, the AER assessed whether Envestra's proposed capex amounts for the 2008–12 access arrangement are properly accounted for in the capital base roll forward.

The AER accepts that Envestra's proposed capex for the 2008–12 access arrangement period is properly included in the capital base roll forward and is consistent with the requirements of the NGR,[[38]](#footnote-38) except for the following:[[39]](#footnote-39)

* 2012 capex—the AER has replaced Envestra's estimated 2012 capex with benchmark (forecast) 2012 capex adjusted for actual growth. This is consistent with the ESC's capex incentive scheme for the 2008–12 access arrangement period[[40]](#footnote-40)
* minor reconciliation differences between Envestra's proposal and Envestra's audited regulatory accounts.

In total, the AER's amendments to the capex amounts for the 2008–12 access arrangement period result in:

* Envestra Victoria—a reduction of $55.2 million or 17 per cent of Envestra's proposal
* Envestra Albury—an increase of $0.5 million or 10 per cent of Envestra's proposal.

The AER's draft decision on conforming net capex amounts as used in the capital base roll forward are set out in table 2.11 and table 2.12.

* + - * 1. AER's approved conforming net capex for Envestra Victoria for 2007 and the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Asset class | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
| Mains and services | 41.5 | 40.0 | 31.5 | 44.1 | 58.8 | 81.3 | 255.7 |
| Meters | 9.0 | 10.5 | 8.4 | 9.3 | 9.4 | 9.6 | 47.2 |
| Land and building | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| SCADA | 0.0 | 0.3 | 0.1 | 0.2 | 0.2 | 0.4 | 1.2 |
| Computer equipment | 0.2 | 0.2 | 0.2 | 0.5 | 0.2 | 0.4 | 1.4 |
| Other assets | 4.8 | 4.6 | 6.0 | 2.7 | 5.0 | 3.9 | 22.3 |
| Total net capex | 55.5 | 55.5 | 46.2 | 56.8 | 73.7 | 95.6 | 327.8 |

Source: AER analysis.

Note: Totals may not add due to rounding.

* + - * 1. AER's approved conforming net capex for Envestra Albury for 2007 and the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Asset class | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
| Mains and services | 0.7 | 0.9 | 0.9 | 0.6 | 0.9 | 0.5 | 4.5 |
| Meters | 0.4 | 0.6 | 0.4 | 0.7 | 0.2 | 0.3 | 2.6 |
| Land and building | – | – | – | – | – | – | – |
| SCADA | – | – | – | – | – | – | – |
| Computer equipment | – | – | – | – | – | – | – |
| Other assets | – | – | – | – | – | – | – |
| Total net capex | 1.1 | 1.5 | 1.3 | 1.3 | 1.1 | 0.8 | 7.1 |

Source: AER analysis.

Note: Totals may not add due to rounding.

Adjustments to 2012 capex

The AER does not approve Envestra's proposed capex estimate for 2012 because it does not properly reflect increments or decrements arising from the operation of the ESC’s capex incentive scheme.[[41]](#footnote-41) In attachment 7 the AER has addressed the application of the ESC's capex incentive scheme from 2008–11. However, the ESC's capex incentive scheme required a distinct approach to the treatment of capex in the final year of an access arrangement period. Specifically, the ESC's approach to dealing with capex in the final year of an access arrangement period as part of its capex incentive scheme requires the following for this access arrangement review:[[42]](#footnote-42)

* The 2012 capex to be included in the opening capital base as at 1 January 2013 should be set as the adjusted benchmark 2012 capex.
* This adjusted benchmark 2012 capex is based on the ESC's approved benchmark 2012 capex at the previous access arrangement review. The benchmark capex is then adjusted for customer growth, meter replacement and low pressure pipeline replacement.

Envestra has instead proposed revised estimates of its actual capex for 2012. This approach changes the power of the capex incentive for 2012 compared to other years in the 2008–12 access arrangement period.

The AER will roll into the capital base Envestra's actual (conforming) capex for 2012 at the next access arrangement review. The AER considers that this approach properly applies the ESC's capex incentive scheme for the full period. This will ensure Envestra fully receives any benefits or penalties for capex that diverges from the benchmark set by the ESC. The AER's adjustments to benchmark 2012 capex are set out in .

* + - * 1. AER's approved benchmark capex for Envestra Victoria for 2012 ($million, 2012)

|  |  |  |  |
| --- | --- | --- | --- |
| Asset class | Allocated ESCV benchmarka | Benchmark adjustment | AER approved  2012 capex |
| Mains and services | 80.7 | 0.8 | 81.5 |
| Meters | 10.2 | – 0.7 | 9.6 |
| Land and building | – | – | – |
| SCADA | 0.4 | – | 0.4 |
| Computer equipment | 0.4 | – | 0.4 |
| Other assets | 3.9 | – | 3.9 |
| Total | 95.6 | 0.2 | 95.8 |

Source: AER analysis.

(a) These values total to the ESC's benchmark capex for 2012 set in the access arrangement review for the 2008–12 access arrangement period.

* + - * 1. AER's approved benchmark capex for Envestra Albury for 2012 ($million, 2012)

|  |  |  |  |
| --- | --- | --- | --- |
| Asset class | Allocated ESCV benchmarka | Benchmark adjustment | AER approved  2012 capex |
| Mains and services | 0.7 | –0.1 | 0.5 |
| Meters | 0.7 | –0.4 | 0.3 |
| Land and building | – | – | – |
| SCADA | – | – | – |
| Computer equipment | – | – | – |
| Other assets | – | – | – |
| Total | 1.4 | –0.6 | 0.8 |

Source: AER analysis.

(a) These values total to the ESC's benchmark capex for 2012 set in the access arrangement review for the 2008–12 access arrangement period.

The AER's draft decision results in a reduction to Envestra's proposed opening capital bases as at 1 January 2013 of approximately:

* Envestra Victoria $6.6 million ($nominal), or 0.5 per cent of Envestra's proposal
* Envestra Albury $0.6 million ($nominal), or 2 per cent of Envestra's proposal.

However, this value will be updated for actual 2012 capex at the time of the next access arrangement review. Envestra will only gain or lose the return on capital associated with the difference between the approved benchmark 2012 capex and actual 2012 capex for five years, as discussed below. The following sections explain the operation of the ESC's approach for final year capex in an access arrangement period, and the AER's proposed approach to updating the capital base for actual 2012 capex at the next access arrangement review.

Operation of the ESC's approach for final year capex

In applying its capex incentive scheme, the ESC took the following steps:[[43]](#footnote-43)

1. At the time of the ESC's access arrangement review, actual capex for the final year (year 5) of an access arrangement period was not yet known. The ESC therefore included in the capital base roll forward an amount equal to the benchmark capex for that year, as estimated at the earlier access arrangement review. To recognise growth in the network, the ESC adjusted this benchmark capex for growth in customers, meter replacement and replacement of low pressure pipelines.
2. At the next access arrangement review, the ESC included actual capex in the capital base roll forward for the final year of the earlier access arrangement period, replacing the adjusted benchmark capex for that year.
3. The ESC made no adjustment for the accumulated return on capital associated with any difference between actual capex and the adjusted benchmark capex.

The final step allowed the service provider to gain or lose the return on capital associated with the difference between actual and the adjusted benchmark capex for five years. This ensured the power of the capex incentive scheme was the same for the final year as for the other years during the access arrangement period.

AER's approach to updating the capital base for actual capex

The AER does not operate any capex incentive schemes similar to the ESC’s. Accordingly, the AER does not typically need to set an adjusted benchmark capex for the final year of an access arrangement period to preserve incentives. Instead, it requires service providers to provide their best forecast of capex for the final year of the access arrangement period. This minimises any difference between forecast and actual capex that needs to be adjusted from the capital base at the next access arrangement review. At the next access arrangement review, the AER will adjust the capital base for:

* the difference between the forecast and actual capex for the final year of the earlier access arrangement period (2017)
* the five year accumulated return on capital associated with the difference between the forecast and actual capex for the final year of the earlier access arrangement period (2017).

The AER has decided not to include a capex incentive scheme for the 2013–17 access arrangement period (see attachment 7). Under the NGR, the AER must ensure that revenue calculations for the 2013–2017 access arrangement period properly reflect increments or decrements resulting from the operation of the ESC's capex incentive mechanism.[[44]](#footnote-44) This requires the AER to approve an adjusted benchmark capex for 2012, which will be updated for actual capex at the next access arrangement review. At that time, the AER will not adjust the capital base for the five year accumulated return on capital associated with the difference between the adjusted benchmark and actual capex for 2012. This is contrary to the AER's standard approach, as noted above, but is required to properly reflect increments or decrements resulting from the operation of ESC's capex incentive scheme. Following this, the AER will have completed the application of the ESC's capex incentive scheme.

Reconciliation with regulatory accounts

The AER has made minor amendments to Envestra's proposed capex during the 2008–12 access arrangement period to correct discrepancies with historical regulatory accounts. The AER queried these discrepancies with Envestra. Envestra confirmed the reconciliation differences and stated that the regulatory accounts were correct.[[45]](#footnote-45) These amendments result in minor reductions to Envestra's opening capital bases as at 1 January 2013, and affect the allocation of disposals and customer contributions between asset classes

* + 1. Indexation of the capital base

The AER does not approve Envestra's total proposed indexation of the capital base because it will over compensate Envestra's for the effects of inflation. The AER has applied six years of inflation to calculations in real 2006 dollar terms to determine the opening capital base as at 1 January 2013.

The AER accepts Envestra's initial application of six years of actual CPI to inflate real 2006 dollar terms to real 2012 dollar terms. However, the AER does not approve Envestra’s proposal to adjust the opening capital base at 1 January 2013, valued in real 2006 dollar terms, for a further half year of inflation or six and a half years in total. The AER has therefore adjusted the opening capital base for six years of inflation, or six months less than Envestra's proposal. This indexation of the capital base is consistent with the AER’s standard approach. This will result in a reduction to Envestra's proposed opening capital base as at 1 January 2013 of:

* Envestra Victoria—$7 million (nominal), or 0.6 per cent
* Envestra Albury—$0.2 million (nominal), or 0.6 per cent.

An approach for indexation of the capital base is necessary to account for the effects of inflation on the real value of an asset at any point in time under the regulatory framework applying to Envestra. Envestra has recognised this by proposing to apply inflation in its capital base roll forward. Under Envestra's fixed principle 4.7(A)(a) as approved by the ESC, the opening capital base at the start of the fourth access arrangement period (1 January 2013) must be adjusted to take account of ‘changes in CPI since 1 January 2003'.[[46]](#footnote-46) However, it does not specify how this CPI should be calculated. The NGR requires that the AER must take this fixed principle into account.[[47]](#footnote-47) The AER accepts that it is necessary to index the capital base for inflation, and considers that only one year of inflation should be consistently applied for each regulatory year.

Typically, the AER presents its revenue modelling in nominal dollar terms, which is equivalent to real dollar terms for each year. This requires one year of CPI to be applied to the capital base values each year. In contrast, the ESC applied all of its capital base roll forward modelling in real dollar terms for a fixed year, such as real 2006 dollar terms. The ESC then converted this capital base value using a single CPI adjustment at the end of the access arrangement period. Provided both approaches use the same CPI adjustments and the same capital base inputs, this would result in equivalent values.

All data in the ESC’s decision for the 2008–12 access arrangement period were expressed in real 2006 dollar terms. The AER considers that the ESC's further final decision models for the 2008–12 access arrangement period indicate that opex and capex expenditures are assumed to be incurred on average in the middle of the year. The AER considers that the '1 July 2006' label in the ESC's model refers to its assumed timing of opex and capex. However, the closing capital base for each year is valued at the end of that regulatory year.

The AER has reached this conclusion because:

* over the life of the assets in the capital base, the service provider will not be over or under compensated for inflation when both tariffs and the capital base are consistently escalated by the same method for determining the annual change in CPI
* by applying six months of additional inflation, Envestra's proposal creates an inconsistency between inflation applied to tariffs and inflation applied to the capital base
* the ESC’s cash flow timing assumptions suggest the closing capital base was valued at the end of the regulatory year.

Consistency with the annual tariff variation mechanism

The AER has examined the ESC’s models for the 2008–12 access arrangement period. These models confirmed that consistent with the tariff variation mechanism, costs (including the capital base roll forward) prior to 2007 were escalated by annual actual CPI. Annual inflation adjustment to tariffs was based on the annual change in the September–September CPI. Specifically, the inflation adjustment used the annual change in price levels (as represented by the CPI) ending in September before the commencement of the regulatory year in January. For example, the inflation adjustment to the capital base from regulatory year 2006 to regulatory year 2007 would be calculated as the change in CPI from September 2005 to September 2006. The ESC used a CPI that did not perfectly overlap with the regulatory year because of the timing with making the annual tariff variation before the regulatory year has ended. Therefore, the September–September CPI used by the ESC is a proxy of annual price change in a regulatory year for tariff setting purposes. This particular CPI is used to approximate the annual increases in the economy’s price level over the year that occurred.

The period over which the annual rate of inflation is approximated is not a reference to the price level of expenditures at a particular point in time. Instead it is an approximation of inflation for a regulatory year based on the change in CPI over an annual period three months prior to the regulatory year. The AER also uses the September–September CPI for calendar year regulatory control periods because it is the most recent index available at the time when tariffs are approved.[[48]](#footnote-48) The AER applies this CPI approach in both tariff variation mechanisms and in the roll forward model.

The AER’s capital base roll forward employs cash flow timing assumptions that are broadly the same as the ESC’s approach. These are:

* the opening capital base is at the start of the regulatory year
* the closing capital base is at end of the regulatory year
* capex is incurred on average in the middle of the regulatory year.[[49]](#footnote-49)

Accordingly, the AER and the ESC approaches result in consistent treatment of CPI between asset values and the CPI–X tariff variation mechanism. The AER considers that by applying six months of additional inflation, Envestra's proposal creates an inconsistency between inflation as applied to the tariffs and inflation as applied to the capital base.

Analysis of the ESC’s cash flow timing assumptions

The ESC addressed proposals for working capital in its decision for the 2003–07 access arrangement. To assess the proposals, the ESC defined a revenue benchmark to ensure that the net present value (NPV) of revenue would equate to the NPV of costs (the NPV=0 condition). The ESC's analysis was not directly related to inflation, but it demonstrated aspects of the ESC's assumptions about the timing of cash flows. From these assumptions, the AER can draw inferences about the intended application of inflation. The ESC set out its revenue benchmark as shown in Figure 2.1.

* + - 1. Analysis of the ESC's cash flow timing assumptions



Source: Essential Services Commission, Review of gas access arrangements, Final decision, October 2002,   
p. 429.

This formula is consistent with the ESC’s cash flow timing assumptions.[[50]](#footnote-50) It implies that the building block expenditures are incurred at various points throughout the year, with costs on a particular day (day i) identified by the subscript ‘i’. To make sure that the NPV=0 condition is met, revenues were set precisely equal to costs. To achieve this, all costs were therefore discounted using the change in price levels from the start of the year to the day on which the expenditures are incurred. Further, all revenues (and prices) were discounted by the change in price levels. For example, expenditures on the 100th day of an access arrangement period would need to be discounted by exactly the inflation in prices from day 1 of the period to day 100.

In practice it is not feasible to measure changes in the price level for every day of a year, or to forecast or measure precisely on which days of an access arrangement period the expenditures are incurred. It is also not practically possible to update tariffs (and therefore revenues) on a daily basis. As a result, it is necessary to use a simplifying assumption, such as an assumption that operating or capital expenditures are incurred evenly throughout the year. Under this assumption, these expenditures are adjusted for inflation on an annual basis.

Similarly, the ESC considered the appropriate discount rate between the opening capital base and the closing capital base is exactly one full year of change in the price level, approximated by the CPI. The AER will use the same annual CPI method as the ESC used to update tariff levels for the purposes of rolling forward the capital base. Therefore, the AER considers it is incorrect to add an additional six months of inflation to convert the closing capital base for 2012 into the opening capital base for 2013. This would create an inconsistency between how tariffs have been updated and the way the capital base is updated in the roll forward process.

* + 1. Depreciation used in the 2008–12 access arrangement period

The AER approves Envestra's proposal to roll forward the capital bases to 1 January 2013 using forecast depreciation (straight-line method) as approved in the previous access arrangement review for the 2008–12 access arrangement period. The use of forecast depreciation to determine the opening capital bases is consistent with the AER's standard approach to depreciation for gas distribution service providers.[[51]](#footnote-51)

The AER must subtract from the capital base depreciation calculated in accordance with the relevant access arrangement as required under the NGR.[[52]](#footnote-52) In its previous access arrangement review, the ESC calculated a benchmark depreciation allowance for Envestra, based on its forecast capex allowance over the 2008–12 access arrangement period.[[53]](#footnote-53) The ESC had also previously used forecast depreciation to determine the opening capital base. The AER therefore accepts that Envestra's proposed approach is consistent with the relevant provisions in the 2008–12 access arrangement and therefore with the NGR.[[54]](#footnote-54)

* + 1. Projected capital base during the 2013–17 access arrangement period

The AER’s forecast of Envestra’s projected capital bases at 31 December 2017 is:

* Envestra Victoria—$1375.1 million ($nominal), a reduction of $511.0 million or 27 per cent from Envestra's proposal
* Envestra Albury—$37.1 million ($nominal), a reduction of $4 million or 9 per cent from Envestra's proposal.

This is because of the AER's draft decision having amended the inputs to the determination of the projected capital base. The AER has amended the inputs as follows:

* Reduced Envestra's proposed opening capital bases as at 1 January 2013 to reflect the changes required in this attachment.
* Reduced Envestra's proposed forecast capex allowances by:[[55]](#footnote-55)
* Envestra Victoria—$517 million (nominal) or 59 per cent
* Envestra Albury—$3 million or 32 per cent.
* Amended Envestra's proposed forecast depreciation allowances by:[[56]](#footnote-56)
* Envestra Victoria—$13 million reduction or 13per cent
* Envestra Albury—$0.2 million increase or 5 per cent.

The capital bases at the commencement of the 2018–22 access arrangement period will be subject to adjustments consistent with the NGR.[[57]](#footnote-57) These adjustments are not limited to, but include:

* the difference between actual and forecast capex for 2012 (the final year of the 2008–12 access arrangement period)
* actual inflation and approved depreciation over the 2013–17 access arrangement period.

Depreciation to be used to roll forward the capital base from 2013–17 at the next access arrangement review

The AER does not approve Envestra's proposal to use actual depreciation rather than forecast depreciation to establish its opening capital bases as at 1 January 2018.[[58]](#footnote-58) The AER considers the use of forecast depreciation to roll forward the capital base from 2013–17 at the next access arrangement review is a preferable alternative that complies with the requirements of the national gas objective[[59]](#footnote-59) and the revenue and pricing principles.[[60]](#footnote-60) In particular, the AER considers the forecast depreciation approach:

* is better suited to the dynamics of the gas distribution sector because of the inherent flexibility for service providers to defer maintenance and replacement expenditure
* will therefore limit Envestra's incentive to defer capex that the AER has approved as prudent and efficient
* is consistent with the ESC's approach for determining Envestra's opening capital base, and with the AER's approach for all other gas distribution networks it regulates. This includes Envestra's Queensland and South Australian gas distribution networks[[61]](#footnote-61)
* is also consistent with the approach outlined in the AER’s Access Arrangement Guideline.[[62]](#footnote-62)
* The AER considers the forecast depreciation approach will therefore promote more efficient investment in Envestra's networks in the long term interests of natural gas users.[[63]](#footnote-63) It will do so by limiting Envestra's incentive to defer efficient pipeline investment that has been approved in its building block revenue allowance.

Dynamics of the gas distribution sector

The AER considers that expenditure is more easily deferred in the gas distribution sector than in, for example, electricity distribution. In electricity distribution, relatively minor equipment failures can totally disrupt services. In contrast, gas service is unlikely to be interrupted through an increase in unaccounted for gas unless a major breach occurs. This provides gas distributors with relatively greater flexibility in the timing of replacement capex than electricity distributors. During the 2008–12 access arrangement period, Envestra did in fact defer capex. In some circumstances, deferrals of expenditure can be efficient. However, the AER considers that Envestra should be provided with an additional incentive that might cause it to defer efficient expenditure. Using forecast depreciation to roll forward the capital base will limit the resulting incentive for Envestra to defer efficient expenditure. This incentive is discussed below.

Capex incentive due to the depreciation approaches

The AER has concerns with Envestra's proposed depreciation approach for the 2013–17 capital base roll forward and its potential impact on Envestra's incentive to defer capex. Over the 2008–12 access arrangement period, Envestra Victoria has spent approximately $74 million ($2012) less than the amounts approved by the ESC. Even after accounting for efficiency gains as recognised in the ESC's capex incentive scheme, Envestra has spent below its approved allowance. This is discussed in greater detail in attachment 7. The AER considers that Envestra's proposal to use an actual depreciation approach may create a stronger incentive for Envestra to defer approved capex in order to retain the excess depreciation to be recovered over the 2013–17 access arrangement period. In contrast, the use of forecast depreciation limits Envestra's incentive to defer expenditure included in its approved capex allowance. It does so as follows:

* the AER calculates Envestra's return on capital and depreciation based on the opening capital base and projected capex for the 2013–2017 access arrangement period
* if Envestra spends less than its capex allowance, Envestra will recover more return on capital than it would have if it had forecast accurately at the access arrangement review. Envestra will retain this excess under either depreciation approach
* however, under the forecast depreciation approach, Envestra's capital base will have more depreciation removed from it than it would have if Envestra forecast accurately at the access arrangement review. This will result in a lower capital base at the next access arrangement review, and therefore lower projected return on capital and depreciation allowances for future periods.
* In contrast, if Envestra underspends using an actual depreciation approach, Envestra will retain the return on capital arising from the difference between actual and forecast capex, and its capital base will only depreciate based on its actual capex. As such, Envestra will also retain the excess depreciation allowance it recovered during the 2013–17 access arrangement period. Envestra will keep all of the benefits of under-expenditure, creating a stronger incentive to defer capex programs that are approved as efficient and prudent. The AER therefore considers in these circumstances it is not appropriate to increase the capex incentive by using an actual depreciation approach for the 2013–17 capital base roll forward at the next access arrangement review.
  1. Revisions

The AER requires the following revisions to make the access arrangement proposals acceptable:

Revision 2.1: Make all necessary amendments to reflect the AER’s draft decision on the roll forward of the capital bases for the 2008–12 access arrangement period, as set out in table 2.1 and table 2.2.

Revision 2.2: Make all necessary amendments to reflect the AER’s draft decision on the projected opening capital bases for the 2013–17 access arrangement period, as set out in table 2.3 and table 2.4.

Revision 2.3: Make all necessary amendments to reflect the AER’s draft decision on net capex by asset class during the 2008–12 access arrangement period, as set out table 2.11 and table 2.12.

Revision 2.4: Make all necessary amendments to reflect the AER’s draft decision on the use of forecast depreciation to roll forward the opening capital bases from 2013­–17 at the next access arrangement review, as set out in section 2.4.5.

1. Capital expenditure

This attachment outlines the AER‘s assessment of Envestra‘s[[64]](#footnote-64) proposed capital expenditure (capex) for 2007-11 and forecast capex for the 2013–17 access arrangement period.

* 1. Draft decision

Conforming capital expenditure for 2007–11

Victorian network

The AER approves $277.9 million ($2011) total net capex for 2007–11 as conforming capex under r. 79(1) of the NGR.

For the purpose of the capital base roll forward, the AER has adopted the ESC's benchmark capex for 2012, adjusted for actual growth. table 3.1 shows approved capex for 2007–11 by category.

* + - * 1. AER approved capital expenditure by category over 2007–11 ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Category | 2007 | 2008 | 2009 | 2010 | 2011 | 2012(a) |
| Mains replacement | 9.2 | 8.6 | 3.8 | 7.4 | 22.0 | 31.0 |
| Residential connections | 19.8 | 24.2 | 21.7 | 22.1 | 25.4 | 24.7 |
| Commercial/industrial connections | 5.3 | 3.1 | 2.5 | 2.1 | 2.2 | 1.5 |
| Residential meter replacement | 2.4 | 2.3 | 1.7 | 2.2 | 2.4 | 4.0 |
| Commercial/industrial meter replacement | 0.7 | 0.8 | 0.5 | 0.5 | 0.5 | 0.4 |
| Augmentation | 3.8 | 2.2 | 6.1 | 7.0 | 3.4 | 14.4 |
| IT | 0.2 | 0.2 | 0.1 | 1.2 | 2.8 | 0.4 |
| SCADA | – | – | – | – | – | 0.4 |
| Other | 4.3 | 2.7 | 0.3 | 2.1 | 1.0 | 1.0 |
| Gas Extensions | – | 2.5 | 1.7 | 2.8 | 4.5 | 4.1 |
| Overheads | 7.9 | 8.3 | 6.7 | 8.0 | 10.2 | 10.6 |
| GROSS TOTAL CAPITAL EXPENDITURE | 53.6 | 55.0 | 45.1 | 55.3 | 74.5 | 92.6 |
| Customer contributions | – | 1.9 | 0.7 | 1.8 | 3.4 | 0.2 |
| Government contributions | – | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 53.6 | 53.1 | 44.4 | 53.5 | 71.2 | 92.3 |
| Adjustment to reconcile with regulatory accounts | – | 0.5 | 0.3 | 1.3 | – | – |
| Adjusted net capex | 53.6 | 53.6 | 44.7 | 54.8 | 71.2 | 92.3 |

Source: AER analysis.

Notes: (b) As set out in Attachment 2, the AER has approved 2012 capex values equal to the ESC's benchmark capex, adjusted for actual growth.

Albury network

The AER approves $6.1 million ($2011) total net capex for 2007–11 as conforming capex under r. 79(1) of the NGR.

For the purpose of the capital base roll forward, the AER has adopted the ESC's benchmark capex for 2012, adjusted for actual growth.

Table 3.2 shows approved capex for 2007–11 by category.

* + - * 1. AER approved capital expenditure by category over 2007–11 ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Category | 2007 | 2008 | 2009 | 2010 | 2011 | 2012(a) |
| Mains replacement | 0.01 | 0.00 | 0.01 | 0.03 | 0.04 | 0.01 |
| Residential connections | 0.48 | 0.78 | 0.65 | 0.51 | 0.63 | 0.51 |
| Commercial/industrial connections | 0.25 | 0.05 | 0.08 | 0.05 | 0.14 | 0.06 |
| Residential meter replacement | 0.14 | 0.36 | 0.28 | 0.13 | 0.02 | 0.02 |
| Commercial/industrial meter replacement | 0.03 | 0.04 | 0.03 | 0.01 | 0.02 | 0.01 |
| Augmentation | 0.01 | – | 0.03 | 0.31 | – | – |
| IT | – | – | – | – | 0.00 | 0.00 |
| SCADA | – | – | – | – | – | – |
| Other | – | – | – | – | – | 0.02 |
| Gas Extensions | – | – | – | – | – | – |
| Overheads | 0.17 | 0.23 | 0.20 | 0.19 | 0.16 | 0.19 |
| GROSS TOTAL CAPITAL EXPENDITURE | 1.09 | 1.47 | 1.28 | 1.23 | 1.02 | 0.82 |
| Customer contributions | – | – | – | – | – | – |
| Government contributions | – | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 1.09 | 1.45 | 1.28 | 1.23 | 1.02 | 0.82 |

Source: AER analysis.

Notes: (a) As set out in Attachment 2, the AER has approved 2012 capex values equal to the ESC's benchmark capex, adjusted for actual growth

Conforming capital expenditure for the 2013–17 access arrangement period

Victorian network

The AER approves $315.4 million ($2011) of Envestra's proposed $764.9 million ($2011) total net capex for 2013–17 as conforming capex under r. 79(1) of the NGR.

Table 3.3 shows approved capex for the 2013–17 access arrangement period by category.

* + - * 1. AER approved capital expenditure(a) by category over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 27.6 | 17.7 | 13.3 | 8.9 | 6.4 |
| Residential connections | 20.1 | 19.4 | 19.2 | 18.5 | 18.4 |
| Commercial/industrial connections | 3.7 | 3.5 | 3.3 | 2.1 | 2.3 |
| Residential meter replacement | 2.5 | 5.0 | 3.3 | 8.1 | 2.6 |
| Commercial/industrial meter replacement | 1.0 | 1.3 | 1.8 | 1.5 | 1.4 |
| Augmentation | 4.3 | 8.0 | 2.1 | 11.5 | 1.8 |
| IT | 3.8 | 7.6 | 3.1 | 0.2 | 0.7 |
| SCADA | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Other | 3.9 | 5.3 | 4.4 | 2.6 | 2.3 |
| Gas Extensions | – | – | – | – | – |
| Overheads | 8.5 | 10.1 | 8.6 | 10.4 | 8.7 |
| GROSS TOTAL CAPITAL EXPENDITURE | 75.7 | 78.0 | 59.4 | 63.9 | 44.9 |
| Customer contributions | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| Government contributions | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 74.4 | 76.7 | 58.1 | 62.6 | 43.6 |

Source: AER analysis.

Notes: (a) IncludingAER material and labour escalation adjustments and network management fee.

Table 3.4 shows Envestra's proposed capex compared with the AER's approved allowance for each category.

* + - * 1. Comparison of AER approved and Envestra's proposed capital expenditure over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Proposed | Approved(a) | Difference % |
| Mains replacement | 328.6 | 73.9 | -77.5% |
| Residential connections | 141.7 | 95.6 | -32.5% |
| Commercial/industrial connections | 25.6 | 14.9 | -41.8% |
| Residential meter replacement | 28.1 | 21.6 | -23.2% |
| Commercial/industrial meter replacement | 7.7 | 7.1 | -7.9% |
| Augmentation | 52.0 | 27.6 | -46.8% |
| IT | 19.3 | 15.5 | -19.9% |
| SCADA | 1.1 | 1.0 | -8.7% |
| Other | 53.2 | 18.5 | -65.2% |
| Gas Extensions | 19.7 | – | -100.0% |
| Overheads | 97.5 | 46.2 | -52.6% |
| GROSS TOTAL CAPITAL EXPENDITURE | 774.4 | 321.9 | -58.4% |
| Customer contributions | 9.5 | 6.5 | -31.1% |
| Government contributions | – | – | 0.0% |
| NET TOTAL CAPITAL EXPENDITURE | 764.9 | 315.4 | -58.8% |

Source: AER analysis, Envestra.

Notes: (a) Including AER material and labour escalation adjustments and network management fee.The reasons for the AER's reductions are:

* The LP to HP mains replacement program volumes are reduced in line with the annual average volumes delivered over the 2008–11 period. A pass through provision is provided to allow for changes in circumstances that may encompass a change in volumes. The average unit rate is reduced due to the AER's assessment that Envestra's model does not provide a reasonable basis for estimating the unit rates. The medium pressure program is not approved as Envestra has not justified the program, as required under r. 79(2) of the NGR.
* For ad hoc service renewals capex Envestra forecast a step up in the number of renewals in 2013. This was not justified. The AER interpolated the number of services from 2011 to the proposed number in 2017.
* Residential and commercial/industrial connections capex is reduced due to reductions in volumes and unit rates. Due to conflicting information over a number of information requests, the AER did not consider the abolishments rate to be arrived at on a reasonable basis. The AER used another Victorian distribution business' abolishment rate as a substitute. Envestra based its unit rates on a simple average of 2009 and 2010 unit rates plus adjustments for recently tendered contractor rates. Envestra failed to substantiate the uplift associated with the contractor rates. The AER considers that given the nature of the tendering process which Envestra undertakes that a 2008-11 average provides a better estimate of future unit rates.
* The knowledge management system[[65]](#footnote-65) proposed by Envestra under IT capex is not approved as Envestra has failed to adequately identify the regulatory change event that is driving the proposed expenditure. The interval meter data management[[66]](#footnote-66) project proposed by Envestra is not approved as Envestra has not provided evidence that the project is necessary to meet network safety or integrity requirements or regulatory obligations.
* Some augmentation projects are not approved or have expenditure reductions due to Envestra's use of growth or load forecasts which are either not arrived at on a reasonable basis or do not support the need for the proposed augmentation solution.
* Certain projects within Envestra's other non-demand capex program do not comply with r. 79(1) of the NGR as the AER does not consider they would be undertaken by a prudent and efficient service provider. Additionally, some projects do not comply with r. 74 of the NGR as the AER does not consider Envestra has demonstrated that the estimated or forecast capex for these projects was arrived at on reasonable basis or is the best possible forecast in the circumstances.
* Envestra's proposed extensions capex is not approved as it does not comply with r. 79(2)(b) of the NGR.
* Residential and commercial/industrial meter replacement capex has been reduced as a result of an error in the unit rates incorporated into Envestra’s capex forecast model.
* Overheads were reduced to reflect that the scale of Envestra's business is not expected to change significantly from the 2008–12 access arrangement period and so overheads should not change significantly either. An adjustment is made for variable overheads in line with changes in capital expenditure between years.
* Material and labour cost escalation is reduced.

Albury network

The AER approves $5.6 million ($2011) of Envestra's proposed $8.2 million ($2011) total net capex for 2013–17 as conforming capex under r. 79(1) of the NGR.

Table 3.5 shows approved capex for the 2013–17 access arrangement period by category:

* + - * 1. AER approved capital expenditure(a) by category over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Residential connections | 0.47 | 0.54 | 0.56 | 0.58 | 0.57 |
| Commercial/industrial connections | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| Residential meter replacement | 0.07 | 0.06 | 0.10 | 0.06 | 0.05 |
| Commercial/industrial meter replacement | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 |
| Augmentation | 0.01 | – | – | – | 0.46 |
| IT | 0.14 | 0.28 | 0.11 | 0.00 | 0.03 |
| SCADA | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Other | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Gas Extensions | – | – | – | – | – |
| Overheads | 0.19 | 0.23 | 0.21 | 0.21 | 0.25 |
| GROSS TOTAL CAPITAL EXPENDITURE | 0.97 | 1.20 | 1.07 | 0.93 | 1.43 |
| Customer contributions | – | – | – | – | – |
| Government contributions | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 0.97 | 1.20 | 1.07 | 0.93 | 1.43 |

Source: AER analysis, Envestra.

Notes: (a) Including NMF and AER material and labour escalation adjustments and network management fee.

Table 3.6 shows Envestra's proposed capex compared with the AER's approved allowance for each category.

* + - * 1. Comparison of AER approved(a) and Envestra's proposed capital expenditure over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Proposed | Approved(a) | Difference % |
| Mains replacement | 0.04 | 0.04 | -8.1% |
| Residential connections | 3.88 | 2.71 | -30.1% |
| Commercial/industrial connections | 0.19 | 0.13 | -32.3% |
| Residential meter replacement | 0.38 | 0.35 | -8.7% |
| Commercial/industrial meter replacement | 0.15 | 0.13 | -8.7% |
| Augmentation | 0.53 | 0.47 | -12.4% |
| IT | 0.70 | 0.56 | -19.3% |
| SCADA | 0.11 | 0.10 | -9.0% |
| Other | 0.87 | 0.01 | -98.8% |
| Gas Extensions-NGEP | – | – | 0.0% |
| Overheads | 1.37 | 1.10 | -20.1% |
| GROSS TOTAL CAPITAL EXPENDITURE | 8.23 | 5.60 | -32.0% |
| Customer contributions | – | – | 0.0% |
| Government contributions | – | – | 0.0% |
| NET TOTAL CAPITAL EXPENDITURE | 8.23 | 5.60 | -32.0% |

Source: AER analysis, Envestra.

Note: (a) Including AER material and labour escalation adjustments and network management fee.

The reasons for the AER's reductions are:

* Residential and commercial/industrial connections capex is reduced due to reductions in volumes and unit rates. Due to conflicting information over a number of information requests, the AER did not consider the abolishments rate to be arrived at on a reasonable basis. The AER used another Victorian distribution business' abolishment rate as a substitute. Envestra based its unit rates on a simple average of 2009 and 2010 unit rates plus adjustments for recently tendered contractor rates. Envestra failed to substantiate the uplift associated with the contractor rates. The AER considers that given the variability in the unit rates that a 2008-11 average provides a better estimate of future unit rates.
* The knowledge management system[[67]](#footnote-67) proposed by Envestra under IT capex is not approved as Envestra has failed to adequately identify the regulatory change event that is driving the proposed expenditure. The interval meter data management[[68]](#footnote-68) project proposed by Envestra is not approved as Envestra has not provided evidence that the project is necessary to meet network safety or integrity requirements or regulatory obligations.
* Certain projects within Envestra's other non-demand capex program are not projects that would be undertaken by a prudent and efficient service provider. Envestra has also not demonstrated that these projects were built up from a reasonable forecast.
* Overheads were reduced to reflect that the scale of Envestra's business is not expected to change significantly from the 2008–12 access arrangement period and so overheads should not change significantly either. An adjustment is made for variable overheads in line with changes in capital expenditure between years.
* Material and labour cost escalation is reduced.
  1. Envestra's Proposal

2007–11 period

Victorian network

Envestra's proposed net total capex of $275.8 million ($2011) for 2007–11. This is 29 per cent below the benchmark allowance approved by the ESC.

* + - * 1. Envestra proposed conforming capital expenditure over 2007–12 ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Category | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Mains replacement | 9.2 | 8.6 | 3.8 | 7.4 | 22.0 | 31.8 |
| Residential connections | 19.8 | 24.2 | 21.7 | 22.1 | 25.4 | 22.1 |
| Commercial/industrial connections | 5.3 | 3.1 | 2.5 | 2.1 | 2.2 | 4.3 |
| Residential meter replacement | 2.4 | 2.3 | 1.7 | 2.2 | 2.4 | 2.6 |
| Commercial/industrial meter replacement | 0.7 | 0.8 | 0.5 | 0.5 | 0.5 | 1.2 |
| Augmentation | 3.8 | 2.2 | 6.1 | 7.0 | 3.4 | 14.8 |
| IT | 0.2 | 0.2 | 0.1 | 1.2 | 2.8 | 0.4 |
| SCADA | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 4.3 | 2.7 | 0.3 | 2.1 | 1.0 | 1.4 |
| Gas Extensions | 0.0 | 2.5 | 1.7 | 2.8 | 4.5 | 3.7 |
| Overheads | 7.9 | 8.3 | 6.7 | 8.0 | 10.2 | 11.7 |
| GROSS TOTAL CAPITAL EXPENDITURE | 53.6 | 55.0 | 45.1 | 55.3 | 74.5 | 94.1 |
| Customer contributions | 0.0 | 1.9 | 0.7 | 1.8 | 3.4 | 1.9 |
| Government contributions | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| NET TOTAL CAPITAL EXPENDITURE | 53.6 | 53.1 | 44.4 | 53.5 | 71.2 | 92.2 |

Source: Envestra.

Albury network

Envestra proposed net total capex of $6.1 million ($2011) for 2007–11. This is 19 per cent below the benchmark allowance approved by the ESC.

* + - * 1. Envestra proposed conforming capital expenditure over 2007–12 ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Category | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Mains replacement | 0.01 | 0.00 | 0.01 | 0.03 | 0.04 | 0.01 |
| Residential connections | 0.48 | 0.78 | 0.65 | 0.51 | 0.63 | 0.57 |
| Commercial/industrial connections | 0.25 | 0.05 | 0.08 | 0.05 | 0.14 | 0.15 |
| Residential meter replacement | 0.14 | 0.36 | 0.28 | 0.13 | 0.02 | 0.37 |
| Commercial/industrial meter replacement | 0.03 | 0.04 | 0.03 | 0.01 | 0.02 | 0.03 |
| Augmentation | 0.01 | – | 0.03 | 0.31 | – | – |
| IT | – | – | – | – | 0.00 | – |
| SCADA | – | – | – | – | – | – |
| Other | – | – | – | – | – | 0.02 |
| Gas Extensions | – | – | – | – | – | – |
| Overheads | 0.17 | 0.23 | 0.20 | 0.19 | 0.16 | 0.22 |
| GROSS TOTAL CAPITAL EXPENDITURE | 1.09 | 1.47 | 1.28 | 1.23 | 1.02 | 1.38 |
| Customer contributions | – | – | – | – | – | – |
| Government contributions | – | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 1.09 | 1.47 | 1.28 | 1.23 | 1.02 | 1.38 |

Source: Envestra.

2013–17 access arrangement period

Victorian network

Envestra proposed net total capex of $764.9 million ($2011) for the 2013–17 access arrangement period. This represents a real increase of 142 per cent over the benchmark approved by the ESC for the 2008–12 access arrangement period (see figure 3.1 below).

* + - * 1. Envestra proposed capital expenditure by category over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 65.7 | 72.8 | 62.3 | 63.2 | 64.7 |
| Residential connections | 27.0 | 27.8 | 28.5 | 28.8 | 29.5 |
| Commercial/industrial connections | 4.8 | 5.0 | 5.0 | 5.2 | 5.6 |
| Residential meter replacement | 2.8 | 6.5 | 4.3 | 11.1 | 3.3 |
| Commercial/industrial meter replacement | 1.1 | 1.5 | 2.1 | 1.6 | 1.4 |
| Augmentation | 4.3 | 27.2 | 2.8 | 14.5 | 3.1 |
| IT | 7.2 | 7.9 | 3.3 | 0.2 | 0.8 |
| SCADA | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Other | 13.3 | 15.7 | 10.8 | 6.8 | 6.7 |
| Gas Extensions | 10.4 | – | 7.7 | 1.3 | 0.2 |
| Overheads | 20.4 | 23.0 | 18.9 | 18.8 | 16.3 |
| GROSS TOTAL CAPITAL EXPENDITURE | 157.2 | 187.7 | 146.0 | 151.7 | 131.8 |
| Customer contributions | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| Government contributions | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 155.3 | 185.8 | 144.1 | 149.8 | 129.9 |

Source: AER analysis of Envestra's proposal.

* + - 1. Comparison of Envestra's past approved, actual and proposed capex ($million, 2011)



Source: AER analysis.

The major components of the forecast gross total expenditure are mains replacement (42 per cent), customer connections (22 per cent), overheads (13 per cent), other capex (7 per cent) and augmentation capex (7 per cent) (see ).

* + - 1. Composition of Envestra's total capex for 2013–17 ($million, 2011)

Source: AER analysis.



Albury network

Envestra Albury proposed net total capex of $8.2 million ($2011) for the 2013–17 access arrangement period, representing a real increase of 29 per cent over the the benchmark approved by the ESC for the 2008–12 access arrangement period (see ).

* + - * 1. Envestra proposed capital expenditure by category over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Residential connections | 0.68 | 0.75 | 0.80 | 0.82 | 0.84 |
| Commercial/industrial connections | 0.04 | 0.04 | 0.04 | 0.03 | 0.04 |
| Residential meter replacement | 0.07 | 0.07 | 0.12 | 0.07 | 0.06 |
| Commercial/industrial meter replacement | 0.03 | 0.03 | 0.04 | 0.03 | 0.03 |
| Augmentation | 0.01 | – | – | – | 0.53 |
| IT | 0.26 | 0.29 | 0.12 | 0.00 | 0.03 |
| SCADA | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Other | 0.34 | 0.31 | 0.12 | 0.05 | 0.05 |
| Gas Extensions | – | – | – | – | – |
| Overheads | 0.29 | 0.30 | 0.25 | 0.21 | 0.32 |
| GROSS TOTAL CAPITAL EXPENDITURE | 1.73 | 1.83 | 1.52 | 1.23 | 1.92 |
| Customer contributions | – | – | – | – | – |
| Government contributions | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 1.73 | 1.83 | 1.52 | 1.23 | 1.92 |

Source: AER analysis of Envestra's proposal.

* + - 1. Comparison of Envestra's past approved, actual and future proposed capex ($million, 2011)



Source: AER analysis.

The major components of the forecast gross total expenditure are customer connections (47 per cent), overheads (17 per cent), other capex (11 per cent) and information technology (8 per cent) (see below).

* + - 1. Composition of Envestra's total capex for 2013–17 ($million, 2011)



Source: AER analysis.

* 1. Assessment approach

NGR requirements for conforming capital expenditure

The AER must accept, as part of the opening capital base for the access arrangement period, any conforming capex made (or to be made) during the earlier access arrangement period.

The AER must also consider forecast conforming capex for the access arrangement period as part of calculating the projected capital base for the access arrangement period.[[69]](#footnote-69)

Capex will be conforming if it:

* meets the definition of capex in r. 69 of the NGR. Capex is defined as costs and expenditure of a capital nature incurred to provide, or in providing, pipeline services
* is based on a forecast or estimate which is supported by a statement of the basis of the forecast or estimate required under r. 74(1) of the NGR. In accordance with r. 74(2) of the NGR, any forecast or estimate submitted must:
* be arrived at on a reasonable basis
* represent the best forecast or estimate possible in the circumstances[[70]](#footnote-70)
* conforms with the capex criteria in r. 79 of the NGR. There are two essential criteria that must both be met under this rule:
* The expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with good industry practice, to achieve the lowest sustainable cost of providing services; and
* The expenditure must be justifiable on one of four grounds set out in r. 79(2) of the NGR.

The four grounds set out in r. 79(2) of the NGR can be summarised as follows. The capex

must either:

* have an overall economic value that is positive
* demonstrate an expected present value of the incremental revenue that exceeds the expenditure
* be necessary to maintain and improve the safety of services, or maintain the integrity of services, or comply with a regulatory obligation or requirement, or maintain capacity to meet levels of demand existing at the time the capex is incurred, or
* be justifiable as a combination of the preceding two dot points.

The AER has limited discretion when making decisions under r. 79 and r. 40(2) of the NGR.[[71]](#footnote-71) The AER must approve a particular element of the access arrangement proposal if that element complies with the applicable requirements of the NGR and NGL and is consistent with any criteria set out in the NGR or NGL.

Assessment of conforming capital expenditure

The AER considers the access arrangement information provided by Envestra in assessing its proposed capex. The AER will not approve certain information and forecasts provided by Envestra if the information does not meet the requirements set out in the NGR.[[72]](#footnote-72) The AER must exercise its economic regulatory functions in a manner that will or is likely to contribute to the achievement of the NGO.[[73]](#footnote-73) For instance, having regard to the NGO, the AER takes the view that a prudent service provider will seek cost efficiencies through continuous improvements, and that customers ultimately share in these benefits. This also provides the service provider with a reasonable opportunity to recover at least its efficient costs in accordance with the revenue and pricing principles.

In assessing Envestra’s proposed capex in the earlier access arrangement period, the AER reviewed Envestra's supporting material. This included information on Envestra's reasoning and, where relevant, business cases, audited regulatory accounts, and other relevant information. This information helped the AER identify the whether capex over the earlier access arrangement period was conforming capex and, in turn, whether that capex should be included in the opening capital base in accordance with r. 77 (2)(b) of the NGR.

Although the capital base roll forward relates to the 2008–12 access arrangement period, the AER is also required to adjust for the difference between actual and forecast capex in the capital base.[[74]](#footnote-74) Generally, the final year of the previous access arrangement period is based on forecast capex (in this case, 2007). Therefore, the AER’s assessment of conforming capex includes the regulatory years for 2007–11. This is because:

* 2007 capex—at the previous access arrangement review, the ESC did not yet have actual capex for 2007. The ESC therefore included in the capital base benchmark (forecast) capex for 2007, adjusted for actual growth. Since actual capex is now available for 2007, the AER has assessed whether Envestra’s actual capex for 2007 is conforming capex under the NGR. [[75]](#footnote-75)This conforming capex is then included in the capital base roll forward.[[76]](#footnote-76)
* 2008–11 capex—for this access arrangement review, the AER has the actual capex for 2008–11. Consistent with 2007 capex, the AER has assessed whether Envestra’s actual capex for 2008–11 is conforming under the NGR for inclusion in the capital base roll forward.[[77]](#footnote-77)
* 2012 capex—for this access arrangement review, the AER does not yet have actual capex for 2012. The AER is required under the NGR to properly reflect any increments or decrements arising from the operation of the ESC’s capex incentive scheme.[[78]](#footnote-78) The AER has therefore adopted the ESC’s approach for 2012 capex. This requires the AER to include in the capital base roll forward benchmark (forecast) capex for 2012, adjusted for actual growth. At the next access arrangement review, the AER will assess whether Envestra’s actual capex for 2012 is conforming capex under the NGR.[[79]](#footnote-79)
* The AER’s detailed analysis of the capex incentive scheme is set out in attachment 7, and its application to the capital base roll forward is addressed in attachment 2 of the AER's draft decision.

In assessing whether Envestra’s proposed capex in the projected capital base complies with the capex criteria in r. 79(1) of the NGR, the AER assessed the key drivers for the capex. The AER relied upon the following information:

* The access arrangement information (AAI) - this document outlines Envestra's program of capital expenditure and describes the main drivers of increased capital expenditure;
* The Capacity Management Plan, Asset Management Plan, Mains Replacement Plan and appendices which provided specific expenditure detail[[80]](#footnote-80)
* RIN Template - Victoria and Albury RIN template.xls
* Final Capital Mapping Spreadsheet 28-3-2012.xls
* Business cases which detail expenditure requirements of specific projects[[81]](#footnote-81)
* Capex forecast model[[82]](#footnote-82)
* Unit rates spreadsheet.xlsx[[83]](#footnote-83)
* Submissions received in the course of consulting on the access arrangement proposal[[84]](#footnote-84)

Initially the AER assessed whether the proposed capex is justified on one of the four grounds under NGR r. 79(2).

The AER then assessed the prudency and efficiency of the proposed capex. For analysis purposes the capex was broken into categories depending on whether the expenditure is driven by:

* Growth in demand - extensions, connections, augmentation
* Replacement on the basis of asset life, obsolescence, safety or regulatory obligations - mains, services, meters, regulators, city gates, IT, SCADA, or
* Other - new regulatory or safety obligations, opex or reliability improvements.

For each category of expenditure the scope, timing and cost of the proposed expenditure was considered in order to form a view on the prudency and efficiency of the expenditure. The assessment also considered whether cost forecasts have been arrived at on a reasonable basis and represent the best forecast possible in the circumstances.

A combination of the following approaches was used by the AER to assess efficiency and prudency of Envestra's proposed capex:

Assessing competitive tender processes for outsourced activities

Outsourcing to specialist providers of a particular service is a common means by which businesses in the economy are able to gain access to economies of scale and scope and other efficiencies.

Where the gas businesses have used tendered rates as the basis of proposed unit costs, the AER relied on its conceptual approach to assessing outsourcing arrangements. This approach is outlined in its Final decision for the Victorian electricity distribution network service providers Distribution determination 2011–15.[[85]](#footnote-85)

The first stage of the conceptual framework is a 'presumption threshold' designed to be an initial filter to determine which contracts can be presumed to reflect efficient costs that would be incurred by a prudent operator.

In undertaking this ‘presumption threshold’ assessment, the AER considers:

* Did the service provider have an incentive to agree to non-arm’s length terms at the time the contract was negotiated (or at its most recent re-negotiation)?
* If yes, was a competitive open tender process conducted in a competitive market?

In the absence of an incentive to agree to non-arm’s length terms, the AER considers it reasonable to presume a contract price reflects efficient costs. The AER also considers this presumption to be reasonable where an incentive to agree to non-arm’s length terms exists but the contract was the outcome of a competitive open tender process in a competitive market.

Where an arrangement 'passes' the presumption threshold, the AER considers the starting point for setting future expenditure allowances should be the contract price itself, with limited further examination required. This further examination involves checking whether the contract wholly relates to the relevant services and whether the (efficient) contract price already compensates for risks or costs provided for elsewhere in the building blocks.

Revealed cost approach

The revealed cost approach considers information revealed by the past performance of a gas business. Under the ex ante regime, gas businesses are rewarded for spending less capex than allowed by the regulator. This incentive enables the AER to place some reliance on the historical costs of a gas business when reviewing its forecast capex. The AER used historical costs and volumes as an indicator of efficient costs and volumes for the Victorian gas businesses. In particular, the AER used historical total costs, unit costs and volumes in assessing connections, mains and services replacements, meter replacements, SCADA and IT.

The revealed cost approach is an accepted industry practice. Many gas businesses, including Envestra, have used this approach as a basis to forecast expenditure proposals. This approach has also been used previously by the ESC in its assessment of access arrangement proposals for the Victorian gas businesses and the AER in its past reviews.

Benchmarking against the other businesses' proposed unit costs and volumes

The AER also conducted comparative analysis of unit costs Envestra has used to develop its capex forecast. In particular, the AER undertook a high level benchmarking of a selection of Envestra‘s unit costs against similar unit costs of the other Victorian gas businesses. Where required some adjustment for compositional difference was made. This comparison was used for assessing connections, mains and services replacements, meter replacements, SCADA and IT.

Where this benchmarking indicated that Envestra's capex may not be efficient, the AER undertook a detailed review of Envestra‘s proposal. The AER‘s detailed review involved consideration of relevant documentation and the impact of factors expected to differ from the past and/or from the other Victorian gas businesses.

The AER recognises that forecast efficient costs may legitimately depart from those revealed through past performance, and compared with other gas businesses. For example, gas businesses may discover more efficient processes over time. The gas businesses may propose they can best achieve their safety, reliability or regulatory obligations by incurring expenditure to implement new, more efficient processes, and include such expenditure in their proposed forecast capex. The AER assumed that operating processes would only be changed (from revealed, or otherwise efficient processes) if they are likely to result in efficiency gains (in the absence of any information to suggest other reasons for the change). Where the AER considered that future cost savings should result from capex investments, the AER took this into consideration in determining Envestra‘s opex allowance.

Specialist technical advice

The AER engaged IT and engineering consultants to provide specialist technical advice on the prudency and efficiency of IT projects and augmentation projects.

Cash flow analysis for equity raising costs

To determine the amount of equity raising costs, the AER has undertaken an assessment of benchmark cash flows calculated in the PTRM. Under this method, a prudent service provider, acting efficiently will first exhaust the cheapest sources of funding through the use of internal cash flows before using more expensive external sources of equity financing. The cash flow modelling approach used by the AER incorporates this assumption to determine if any external equity financing would be required based on the AER’s capex forecast for Envestra.

* 1. Reasons for decision
     1. Conforming capital expenditure for 2007–11

The AER considers that the $275.8 million ($2011) net capex incurred by Envestra's Victorian network for 2007–11 is conforming capex that complies with r. 79(1) of the NGR.

The AER considers that the $6.09 million ($2011) net capex incurred by Envestra's Albury network for 2007-11 is conforming capex that complies with r. 79(1) of the NGR.

In reaching this view the AER has considered the following factors:

* Envestra's Victorian network capex was 112.8 million (29 per cent) under the ESC approved amount of $387.9 million for 2007–11.
* Envestra's Albury network capex was 1.4 million (19 per cent) under the ESC approved amount of $7.5 million for 2007–11.
* Envestra spent less than the ESC benchmark on its Victorian network in 9 out of 11 categories. In eight categories, the underspend was greater than 25 per cent below the benchmark allowance - see.Table 3.11.
* Envestra spent less than the ESC benchmark on its Albury network in 8 out of 11 categories. In six categories, the underspend was greater than 25 per cent below the benchmark allowance. - see.Table 3.12.
* The largest underspends occurred in the low pressure mains replacement, IT and augmentation categories:
* In the low pressure mains replacement category, Envestra spent $37.7 million less than the benchmark allowance on its Victoria network. This was due to Envestra only undertaking 298 kms of mains replacement compared to approved volumes of 449 kms on its Victoria network.
* In the augmentation category, Envestra spent $33.5 million and $0.75 million less than the ESC benchmark allowance on its Victorian and Albury networks, respectively. Augmentation capex was lower than forecast due to the deferrals of works.
* In the IT category, Envestra spent $20 and $0.1 million less than the ESC benchmark allowance on its Victorian and Albury networks, respectively. IT capex was lower than forecast due to the deferrals of works.
* Envestra stated that the deferrals of works across a number of capex categories was due to the GFC:

"...the GFC led to significantly higher debt and equity finance costs and reduced the availability of finance to levels that were not anticipated when business plans underpinning the 2008 to 2012 Access Arrangement were put in place. The GFC prevented Envestra from completing its planned capital expenditure program..."[[86]](#footnote-86)

Envestra overspent the ESC allowance for residential customer connections by some 10 per cent and 70 per cent in its Victorian and Albury networks respectively. This was attributed to a greater number of new connections than forecast in every year and higher unit costs due to greater cost pressure because of market conditions during 2007–11.

In its submission to the AER, the Energy Users Coalition of Victoria (EUCV) highlighted that Envestra has generated a significant financial benefit by considerably underspending its capex allowance(s) in the current period.[[87]](#footnote-87) Envestra stated that the underspend related to a difficulty in raising capital during the GFC. The EUCV stated that Envestra has sought an allowance which is more than double what is demonstrably efficient capex for the 2013–17 access arrangement period.[[88]](#footnote-88)

* + - * 1. Victorian network - Comparison of ESC approved and Envestra capital expenditure over 2007–11 ($million, 2011)

|  |  |  |  |
| --- | --- | --- | --- |
| Capex category | ESC Approved | Envestra actual | Difference |
| Mains replacement | 87.8 | 51.0 | -41.8% |
| Residential connections | 103.2 | 113.1 | 9.6% |
| Commercial/industrial connections | 22.2 | 15.2 | -31.5% |
| Residential meter replacement | 21.2 | 11.0 | -48.1% |
| Commercial/industrial meter replacement | 5.5 | 3.1 | -44.0% |
| Augmentation | 56.0 | 22.5 | -59.9% |
| IT | 24.6 | 4.6 | -81.3% |
| SCADA | 2.0 | – | -100.0% |
| Other | 9.2 | 10.4 | 13.0% |
| Gas Extensions | 15.2 | 11.6 | -23.7% |
| Overheads | 45.6 | 41.0 | -10.0% |
| GROSS TOTAL CAPITAL EXPENDITURE | 392.3 | 283.5 | -27.7% |
| Customer contributions | 2.4 | 7.7 | 215.5% |
| Government contributions |  | – | 0.0% |
| NET TOTAL CAPITAL EXPENDITURE | 389.9 | 275.8 | -29.3% |
| Adjustment to reconcile with regulatory accounts | – | 2.2 | – |
| Adjusted net capex | 389.9 | 277.9 | -28.7% |

Source: ESC, Envestra.

* + - * 1. Albury network - Comparison of ESC approved and Envestra capital expenditure over 2007–11 ($million, 2011)

|  |  |  |  |
| --- | --- | --- | --- |
| Capex category | ESC Approved | Envestra actual | Difference |
| Mains replacement | 0.05 | 0.09 | 69.8% |
| Residential connections | 2.68 | 3.06 | 14.3% |
| Commercial/industrial connections | 0.67 | 0.57 | -14.7% |
| Residential meter replacement | 1.53 | 0.93 | -39.3% |
| Commercial/industrial meter replacement | 0.24 | 0.12 | -47.8% |
| Augmentation | 1.11 | 0.36 | -67.9% |
| IT | 0.10 | 0.00 | -99.0% |
| SCADA | 0.04 | – | -100.0% |
| Other | 0.11 | – | -100.0% |
| Gas Extensions-NGEP | – | – | 0.0% |
| Overheads | 0.99 | 0.96 | -3.4% |
| GROSS TOTAL CAPITAL EXPENDITURE | 7.52 | 6.09 | -18.9% |
| Customer contributions | – | – | 0.0% |
| Government contributions | – | – | 0.0% |
| NET TOTAL CAPITAL EXPENDITURE | 7.52 | 6.09 | -18.9% |

Source: ESC, Envestra.

* + 1. Conforming capital expenditure for the 2013–17 access arrangement period

The AER approved amounts in this section do not include the AER's adjustment to Envestra's proposed labour and material cost escalation factors and network management fee. For the final AER approved amounts which include these adjustments see table 3.3. The AER's assessment of labour and material cost escalation is contained in Appendix D of the AER's draft decision. The AER's assessment of Envestra's network management fee is contained in appendix E of the AER's draft decision.

The AER approves $325.8 million ($2011)[[89]](#footnote-89) of Envestra's proposed $748.7 million total net capex for its Victorian network over the 2013–17 access arrangement period (see table 3.13).

* + - * 1. Victorian network - AER approved capital expenditure over the 2013–17 access arrangement period ($million, 2011)(a)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 27.7 | 18.5 | 14.0 | 9.3 | 6.7 |
| Residential connections | 20.2 | 20.3 | 20.3 | 19.6 | 19.4 |
| Commercial/industrial connections | 3.7 | 3.7 | 3.5 | 2.2 | 2.4 |
| Residential meter replacement | 2.5 | 5.3 | 3.6 | 8.7 | 2.8 |
| Commercial/industrial meter replacement | 1.0 | 1.4 | 1.9 | 1.6 | 1.6 |
| Augmentation | 4.3 | 8.3 | 2.2 | 12.1 | 1.9 |
| IT | 3.8 | 7.8 | 3.2 | 0.2 | 0.7 |
| SCADA | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Other | 3.8 | 5.7 | 4.9 | 2.8 | 2.5 |
| Gas Extensions | – | – | – | – | – |
| Overheads | 8.5 | 10.1 | 8.2 | 10.0 | 8.1 |
| GROSS TOTAL CAPITAL EXPENDITURE | 75.7 | 81.2 | 62.2 | 66.8 | 46.5 |
| Customer contributions | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| Government contributions | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 74.3 | 79.9 | 60.8 | 65.5 | 45.2 |

Source: AER analysis, Envestra.

Note: (a) Excluding AER adjustment for material and labour escalation and the network management fee

The AER approves $5.7 million ($2011)[[90]](#footnote-90) of Envestra's proposed $7.7 million total net capex for its Albury network over the 2013–17 access arrangement period (see table 3.14).

* + - * 1. Albury network - AER approved capital expenditure over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Residential connections | 0.44 | 0.56 | 0.59 | 0.59 | 0.62 |
| Commercial/industrial connections | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 |
| Residential meter replacement | 0.07 | 0.07 | 0.11 | 0.06 | 0.05 |
| Commercial/industrial meter replacement | 0.03 | 0.03 | 0.03 | 0.02 | 0.03 |
| Augmentation | 0.01 | – | – | – | 0.50 |
| IT | 0.13 | 0.27 | 0.11 | 0.00 | 0.03 |
| SCADA | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Other | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Gas Extensions | – | – | – | – | – |
| Overheads | 0.17 | 0.22 | 0.20 | 0.19 | 0.24 |
| GROSS TOTAL CAPITAL EXPENDITURE | 0.90 | 1.20 | 1.10 | 0.93 | 1.53 |
| Customer contributions | – | – | – | – | – |
| Government contributions | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 0.90 | 1.20 | 1.10 | 0.93 | 1.53 |

Source: AER analysis

Note: Excluding AER adjustment for material and labour escalation and the network management fee

The AER's analysis of the capex driver categories is presented below.

Mains replacement

Distribution mains are the pipes which convey gas to service pipes at each end user point. The distribution mains replacement program consists of proactive and reactive replacement programs. In general, the proactive program involves upgrading the low and medium pressure mains to high pressure mains. This reduces the safety risk associated with aging cast iron and unprotected steel pipes and provides increased ability to manage demand growth. Reactive replacement of mains is required where repairs are not possible and urgent replacement of mains is required to manage gas escape.

Victoria network

Envestra proposed mains replacement capital expenditure of $321.7 million ($2011, escalated direct costs, excluding overheads) for the following mains replacement programs for its Victorian network:

* Low pressure pipe replacement (low pressure to high pressure block mains renewal) program, and
* Ad hoc mains replacements and service renewal program.

The AER's assessment of each of these parts is set out below.

In its submission to the AER, the EUCV noted that the large step up in mains replacement capex for the next access arrangement period is driven by the need to replace old lead sealed mains.[[91]](#footnote-91)

Given Envestra's mains replacement target for 2020 and replacement works in the current period, the EUCV submitted that the increase in mains replacement costs from the   
2008–12 access arrangement period to the 2013–17 access arrangement period should be commensurate with Envestra's forecast of a 50 per cent increase in the volume of mains replaced.[[92]](#footnote-92) In contrast, Envestra's proposal represents a 250 per cent increase in mains replacement cost. The EUCV estimated that Envestra's proposed mains replacement cost in the 2013–17 access arrangement period to be $445 per metre in contrast to $181 per metre in the 2008–12 access arrangement period.[[93]](#footnote-93) The AER has taken account of historical costs in assessing Envestra's proposed mains replacement capex.

Low pressure pipe replacement - block mains renewal

To mitigate the risk of mains failure and address supply reliability issues the distribution businesses are proactively replacing low pressure distribution mains (and some medium pressure as required) with high pressure polyethylene (PE) mains. Block replacement of LP mains is undertaken by working geographically inwards from HP mains areas, which are typically located in outer suburban areas.

Envestra's proposed capital expenditure of $282.7 million ($2011, unescalated direct costs, excluding overheads) for its LP mains replacement program for the 2013–17 access arrangement period for the Victorian network (see Table 3.15).

* + - * 1. Envestra Victoria's low pressure pipe replacement proposal ($million, 2011)(a)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | 2013–2017 |
| Length (km) | 150 | 140 | 125 | 116 | 106 | 636 |
| Unit cost ($/m) | 398 | 454 | 420 | 463 | 507 | 444 |
| Total cost ($ million) | 59.7 | 63.6 | 52.6 | 53.5 | 53.5 | 282.7 |

Source: Envestra.[[94]](#footnote-94)

Notes: (a) Unescalated direct costs, excluding overheads

Volumes

In assessing Envestra’s proposed volumes the AER has taken into account whether the volume of mains replacement is necessary to maintain network safety and integrity, as required by r.79(2)(c) of the NGR, and prudent and efficient, under r.79(1)(a) of the NGR.

The AER does not consider that the volumes proposed by Envestra in excess of the annual average historical volumes are necessary or prudent and efficient. The historical volumes have been sufficient to meet Envestra’s chosen level of risk in the 2008–12 access arrangement period. Without evidence to the contrary, the AER considers that Envestra is able to address any change in risk through the alternative programs available while still undertaking the rate of mains replacement which it undertook in 2008–11.

The AER’s assessment of what is necessary and prudent and efficient, takes into account:

* the nature of the mains replacement program generally,
* evidence presented by Envestra regarding its proposed mains replacement program for 2013–17 and completion of its mains replacement program to date, and
* the applicable legislative and regulatory requirements or obligations.

Envestra proposed undertaking 636 km of low pressure (LP) to high pressure (HP) mains replacement in the 2013–17 access arrangement period.

The low pressure to high pressure mains replacement program was initiated during the   
2003–07 access arrangement review. The ESC stated that the consensus between the Office for Gas Safety (succeeded by the ESV), the ESC and the distribution businesses was that there was a need to "develop and implement a long-term program to progressively replace the cast iron part of the network"[[95]](#footnote-95). In setting the period over which the low pressure mains should be replaced the ESC considered whether the proposed replacements were necessary to maintain the safety and reliability of each distributor's system.[[96]](#footnote-96)

The period for replacement is not fixed or determined under legislation or a regulatory instrument. It is a period proposed by the ESC following consultation with the Office for Gas Safety and the distribution businesses based on factors known or assumed at that time, in early 2003. That proposed period for completion of mains replacement originally varied from 22, to 30, to 40 years depending on the particular distributor.

All of the distribution businesses have varied their delivery compared with their original schedule for the 2003–07 and 2008–12 access arrangement periods. The ESV is currently reviewing the distribution businesses prioritisation and approach to mains replacement.

In the 2008–12 access arrangement period, Envestra proposed an annual volume of 137 km (a total volume of 685 km)[[97]](#footnote-97) of low pressure mains replacement but actually delivered an annual average of 53 km of low pressure mains replacement between 2008–11. For the 2008‑11 period, Envestra was funded $79.1 million ($2012, direct escalated costs, excluding overheads) for the proposed 420 km but it only expended $37.1 million ($2012, direct escalated costs, excluding overheads).

As noted above, ESV is currently reviewing the distribution businesses prioritisation and approach to mains replacement. However, because of how the regulatory framework operates, consumers have paid gas prices reflective of the higher volumes approved in the previous regulatory period, not the actual volumes completed.

Envestra justified its proposed low pressure to high pressure mains replacement capex on the basis of maintaining safety, reliability and the need to meet regulatory obligations. Specifically, Envestra stated that the aims of the pipeworks program are to:

* reduce the incidence of gas leaks and therefore improve the safety of the services (r. 79(2)(c)(i) of the NGR)
* maintain the integrity of gas services (eliminate outages due to water ingress, supply loss arising from leak repair works, poor pressure or loss supply at customers’ premises due to peak loading on low pressure mains) (r. 79(2)(c)(ii) of the NGR)
* to maintain capacity to meet levels of demand for services in areas where low pressure mains are unable to satisfy peak demand or allow the connection of new customers (r. 79(2)(c)(iv) of the NGR)
* enable Envestra to comply with s.32 of the Gas Safety Act (r.79(2)(c)(iii) of the NGR).[[98]](#footnote-98)

Envestra stated that s. 32 the Gas Safety Act 1997 (Vic) (Gas Safety Act) requires Envestra to meet safety obligations as set out below.[[99]](#footnote-99)

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 gas and the reinstatement of an interrupted gas supply.[[100]](#footnote-100) The obligation also includes minimising hazards and risks of damage to public property and the property of customers arising from gas.

Distributors also have obligations under the Gas Distribution System Code (Version 9, Schedule 1, Part A) including to ensure continuity of supply by maintaining gas pressure above the minimum levels specified in the Code.

The AER notes that there are no specific legislative safety or reliability requirements which mandate a certain volume of mains replacement to be undertaken within a specified timeframe. Envestra stated that it "does not have regulatory or legal obligations to replace a defined length of mains each year"[[101]](#footnote-101).

Rather, 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.[[102]](#footnote-102)

Envestra stated that some years ago it undertook breakage zone modelling to identify areas of mains that had a propensity to crack. Envestra states that it has replaced the zones identified as "high breakage zone[s]"[[103]](#footnote-103).

Envestra also noted that:

"age is not a determinant of the useful life of a main. Approximately 30% of mains have been in service for more than 80 years, some of which are in better condition than others of lesser age which have been replaced because of their condition and associated risk"[[104]](#footnote-104).

Distribution businesses meet their safety obligations, not just through the LP to HP mains replacement program, but through a mix of proactive and reactive programs. Despite the level of under delivery of the mains replacement program in the current access arrangement period, Envestra stated that it achieved its safety and reliability obligations through other risk mitigation measures.[[105]](#footnote-105) The risk mitigation activities include:

* comprehensive assessment of gas leaks,
* undertaking regular leak surveys,
* undertaking routine syphon pump programs where water in mains problems are common,
* piecemeal replacement, and
* monitoring of odorant levels to ensure that leaking gas can be detected and reported by the public.[[106]](#footnote-106)

The optimal mix of programs depends on the relative costs and effectiveness in achieving the distribution business’ chosen level of risk.

The risk level the distribution businesses are exposed to and are prepared to adopt appears to vary between businesses and change over time:

* There are different safety risks associated with the different networks. For example there are different quantities of cast iron and unprotected steel across the distribution networks, which creates different risk profiles across the businesses.
* Different distribution businesses have shown that they have different risk tolerances. For example, networks which have less cast iron and unprotected steel are choosing to replace these mains at a faster rate than other networks which have more.
* Distribution businesses also make trade-offs between where they allocate their total capex allowance. This may lead to distribution businesses varying the safety risk they are willing to bear over time in relation to low pressure mains.

In considering what volume of mains replacement is necessary and efficient and prudent, the AER has taken into account these above variables which are informed by the applicable safety requirements. In particular, there is no specific volume of mains replacement to meet the adopted safety level, as safety may be addressed through a mixture of programs. Hence, the AER considers that the volume and timing of the mains replacement program is somewhat at the discretion of the gas business and potentially subject to the changing risk profile of the networks and resource availability.

Envestra stated that it has under delivered due to credit constraints associated with the GFC.[[107]](#footnote-107) Envestra stated that it is currently meeting its safety and reliability obligations while delivering a lower volume of mains replacement than approved by the ESC.[[108]](#footnote-108)

The AER accepts that Envestra is currently meeting its safety and reliability obligations while delivering a lower volume of mains replacement than approved by the ESC. The AER has no evidence to indicate otherwise. The credit constraints associated with the GFC has revealed that the least cost mix of work required to meet Envestra's safety and reliability obligations involves lower volumes of mains replacement than was proposed by Envestra for the 2008–12 access arrangement period.

The AER considers that the annual average volume of mains undertaken between 2008 and 2011 reveals the volume of mains replacement, which in concert with the other proactive and reactive mains programs, has enabled Envestra to meet their safety obligations.

The AER does not consider that the volumes proposed by Envestra in excess of the annual average historical volumes are necessary or prudent and efficient. The historical volumes have been sufficient to meet Envestra’s chosen level of risk in the 2008–12 access arrangement period. The AER considers that, as it has done in the past, Envestra will be able to address any change in risk through the alternative programs available while still undertaking the rate of mains replacement which it has undertaken in 2008–11. In arriving at this decision, the AER has taken into account the distributor’s safety obligations and the means available to it to comply with these obligations. In particular, there is no fixed period for completion of the mains replacement program, a program which is currently under review by the ESV. In addition, there are no mandatory volume requirements under the Gas Safety Act. Instead, there are a variety of options available to distributors to address the existing safety obligations and a range of considerations under the Gas Safety Act which allow distributors to balance risk and cost. Therefore, on the evidence before it, the AER does not consider that a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services, would undertake mains replacement at the volumes Envestra has proposed.

The AER is mindful that proactive replacement of mains involves a longer-term objective of eventually replacing all low pressure mains for safety and reliability reasons. Distribution businesses may alter the timing in response to changing risk and capital availability. The AER also notes that the program is currently being reviewed by the ESV.

The AER does not want to limit the scope for businesses to legitimately respond to changed market conditions through altering the mix of risk management programs. This may require the ability to alter the volume of mains replacement delivered. Consistent with Gas Safety Act,[[109]](#footnote-109) this may be driven by factors such as new information on safety risks and changes in the relative costs of different methods for mitigating or removing safety risks.

For this reason, the AER considers that a pass through event should apply, where the trigger event is the completion of total approved volumes[[110]](#footnote-110) (the annual average of the historical volumes achieved for the 2008–11 period applied to the 2013–17 access arrangement period).

On completion of total approved volumes, the distribution business will be able to submit a cost pass through application seeking to adjust the volume of mains replacement for the remainder of the access arrangement period. In responding to this application the AER will consider:

* the volumes of mains replacement proposed (above approved historical volumes) for the remainder of the access arrangement period
* the efficient unit cost associated with the proposed program of works at a suburb level (as is currently submitted)
* the additional return on capital accruing to the distribution business because the mains replacement program has been completed in a shorter time frame than was initially approved

If approved, as part of the annual tariff variation process, the distribution business will receive the revenue associated with the approved volumes and unit rates. Distribution businesses will receive the same return on and return of capital expenditure as they would have if the volume undertaken had been approved at the commencement of the access arrangement.

The provision of a pass through provides distribution businesses with the ability to apply for approval of additional volumes of mains replacement should it become apparent that changing circumstances warrant an alteration of their replacement programs. This provides the businesses with an incentive to deliver those volumes at an efficient cost.

The AER notes that the mains replacement work is outsourced by Envestra. On the basis of confidential information provided to the AER by Envestra, the AER does not believe the pass through provision will materially change the level of certainty that Envestra currently has over future works.

Within the low pressure mains replacement program is a project line to replace some other mains over the 2013–17 access arrangement period. On the basis of confidential information, the AER notes that this work has not been undertaken in the 2008-12 access arrangement period. Envestra has not provided any justification for this program for the 2013–17 access arrangement period. Based on the information before it, the AER does not consider that this project is prudent and justified under r. 79(2)(c)(i)-(iii) of the NGR. On the basis that this project is not consistent with r. 79(1)(a) of the NGR, the AER does not approve the amount associated with this program.

Unit rates

Envestra proposed an average unit cost for LP mains renewal of $495/metre ($2011, escalated direct cost, excluding overheads) for the 2013–17 access arrangement period. This is 218 per cent higher in real terms than the average unit cost of $156/metre ($2011, escalated direct cost, excluding overheads) for the 2008–11 access arrangement period. Envestra stated that this is largely due to the work progressing towards Melbourne's inner city suburbs which are a more difficult and demanding work environment.

Envestra produced unit rates for its mains replacement program by building a model with two types of inputs:

* suburb factors (including congestion, rockiness, traffic management) and
* 2011–12 tender prices for cost of mains laying, pipe, rock, traffic management, tie-ins, cut offs, service replacement, repositioning of meters, relocation of fitting lines, regulatory boxes and property reinstatement.[[111]](#footnote-111)

Envestra claimed that the model was externally consistent by comparing the model's unit rates for five suburbs against the results of 2012–13 tenders for those suburbs.[[112]](#footnote-112)

In assessing Envestra's approach to formulating the unit rates the AER considered:

* the use of the tendered unit rates within the model
* the internal consistency of the model,
* the external consistency of the model (in this case Envestra proposed validating the model against 2012–13 tendered rates), and
* how the unit rates produced for particular types of suburbs within the Envestra model compared with similar types of suburbs across the other two distribution businesses.

As Envestra's model relied upon 2011–12 tender rates as an input, the AER sought to verify the unit rates and determine that these rates were established under competitive tender conditions. The AER requested that Envestra provide the 2011–12 tender terms of reference, Envestra's evaluation of the tender responses and the awarded contracts which specify the unit rates used as model inputs. This information showed that Envestra derived the model unit rates by taking a simple average of some of the tendered quotes provided.[[113]](#footnote-113) Envestra did not provide an explanation for why they had selectively included particular tenders but excluded others[[114]](#footnote-114). There was a significant variation between the quotes, for example the quotes for one of Envestra's model unit rates were between one sixth of the model unit rate and four and a half times the model unit rate. Envestra argued that it used an average to reflect that it awards work to a number of tenderers to avoid becoming reliant on one tenderer[[115]](#footnote-115).

The AER accepts that maintaining a panel of tenderers is an efficient approach. However, when awarding specific work, the AER considers that a prudent and efficient business operator would normally select a panel member offering the most competitive rate for the particular works. This practice would be consistent with a prudent service provider acting efficiently, in accordance with good industry practice, to achieve the lowest sustainable cost. The AER considers that Envestra's use of the average of tendered rates is likely to upwardly bias its unit cost estimates. Therefore, the unit rates used in the model are not arrived at on a reasonable basis and do not represent the best forecast or estimate possible in the circumstances (as required by r. 74(2)(a) and (b) of the NGR).

In relation to the internal consistency of the model, the AER has a number of concerns:

* The congestion factor has a significant impact on costs. The congestion factor is multiplied by the labour cost for multiple cost inputs eg. tie-ins and mains laying. It therefore has a significant multiplier effect on the unit rate calculation. The impact of the congestion factor is to either decrease the unit rate by up to 31 per cent, where the congestion factor is less than one, or increase the unit rates by up to 74 per cent, where it is greater than one.
* The AER considers that the congestion cost is captured by other costs in the model including the traffic management, mains insertion cost and mains direct laying cost (which both take into account reinstatement costs), service and metering moving cost, rock, tie-ins and cut-offs. The inclusion of a congestion factor is effectively double counting costs already captured by the above mentioned factors.
* The AER considers that there are anomalies in the congestion factor relativities. These include that:
* the scale of difference between the congestion factors for some suburbs are considered by the AER to be too great.
* some suburb relativities are considered by the AER to be inconsistent.

To establish the external consistency of its model, Envestra proposed validating five of the model's unit rates against tenders received for the 2012–13 mains program. Envestra initially provided tendered rates which varied from the models forecasts by between 8 per cent lower to 21 per cent higher. In subsequent tender documentation provided to the AER, a further six suburb unit rates were identified.[[116]](#footnote-116) Incorporating these, the model rates were between 8 per cent less and 36 per cent above the unit rates produced in the model. Further, the model rates were 20 per cent above the weighted average of the lowest tender prices for each location. Given the degree of observed variance, the AER does not consider that the model produced robust unit rate estimates and so the model did not provide a reasonable basis for estimating the unit rates as required by r. 74(2)(a) of the NGR.

The AER also undertook high level benchmarking of unit rates across the three distribution businesses. The AER notes that Envestra's forecast average unit costs at $495/m are more than twice as high as another distribution business. In particular Envestra's rates for   
high-congestion suburbs are 66 per cent higher than comparable suburbs for another distribution business.

The AER does not approve Envestra's unit rates on the basis that they are not arrived at on a reasonable basis as required by r. 74(2)(a)of the NGR. The AER's decision is based on the following factors as discussed above:

* the lack of internal and external consistency of the Envestra's model for estimating unit rates,
* the use of tendered rates as an input into the model in a way that upwardly biases forecasts, and
* the large difference between Envestra's unit rates and those of the other distribution businesses for comparable suburbs.

The AER considers that an appropriate alternative is to:

* divide the suburbs into three categories (easy, medium, hard) according to the congestion factor in the Envestra model, making adjustments for inconsistencies,
* apply the weighted average of the lowest tender rates[[117]](#footnote-117) for each suburb for which 2012-13 tender results were supplied for the medium category of mains replacement,
* for the easy category of mains replacement, for which no 2012–13 tenders were submitted, apply the actual unit rates for work undertaken in 2008–12 in the same suburbs that Envestra is proposing to carry out their mains replacement program in   
  2013–17.[[118]](#footnote-118)

Due to the AER's adjustment to volumes (see above), no mains in the hard category are forecast to be replaced during 2013–17. Thus, no alternative unit rate for the high category is proposed.

Adjusted unit rates

The AER notes that when Envestra reduced the volume of mains replacement works below the approved amount in the current period, it prioritised the areas with lower unit costs.[[119]](#footnote-119)

Given the reduction in approved volumes for the next period, the AER has adjusted the approved unit rate accordingly. This results in an average unit rate of $238/metre and a total expenditure of $63.1 million ($2011, unescalated direct costs, excluding overheads). The AER notes that, with the reduced volumes prioritised in this way, the works will only reach the easy and medium classes of suburbs.

LP pipe - ad hoc replacements and services renewal - (non mains replacement program)

Reactive replacement of mains occurs when there are urgent safety or supply issues. The length of mains replaced are typically short lengths of pipe, up to 50 metres.

Inlet services may need to be renewed on a stand-alone basis (unrelated to mains renewal works) where leaks or damage occur and a repair is not viable. The number of services requiring replacement is reducing as more mains replacement is carried out.

For the Victorian network Envestra proposed a capital allowance of $3.7 million ($2011, unescalated direct costs, excluding overheads)[[120]](#footnote-120) for unplanned service replacements. Envestra based its forecast expenditure on an average of the actual unit rates for 2009 and 2010 and a declining volume of service renewals based on the mains replacement program.[[121]](#footnote-121)

Envestra proposed transferring the ad hoc mains replacement expenditure amount from capex to opex.[[122]](#footnote-122) This was on the basis that ad hoc mains replacement, as a reactive replacement program, constitutes repair work as it keeps the network functioning within its current configuration (versus the block replacement program which Envestra argued provides enhanced capacity and reliability)[[123]](#footnote-123) Envestra based its opex expenditure for ad hoc mains replacement for the 2013–17 access arrangement period on an average of the annual total capex for reactive mains replacement from 2008–11.[[124]](#footnote-124)

The AER considers that ad hoc mains replacement is a capital expenditure item and should continue to be assessed as a capital item, consistent with r. 69 of the NGR.

The AER has considered the Australian Accounting Standards Board AASB 116 Property, Plant and Equipment standard, which relates to the recognition of assets relating to property, plant and equipment. AASB 116 paragraph 7(a) requires that the cost of an item of property, plant and equipment be recognised as an asset if it is probable that future economic benefits associated with the item will flow to the entity.

Statement of Accounting Concepts SAC 4 paragraph 18 states that future economic benefits is synonymous with service potential.

Replacement of mains, no matter how small, provides future economic benefits in terms of providing the service of containing and transporting gas to consumers. At installation, the new mains has the characteristics of pipe with a 60 year life thereby incrementally improving the overall pipe asset life and so the service potential of that pipe.

By contrast, the AER considers that repairs of mains is an expense, as defined under SAC 4 paragraph 117, and as described by the AASB in paragraph 12. A repair of the mains asset does not confer future economic benefit, but rather it maintains the existing economic benefit.

Taking into consideration the Accounting Standards, the AER considers that mains replacement should remain classified as capital expenditure.

In assessing Envestra's proposed expenditure the AER requested data for the 2008–11 actual volume and total costs for the ad hoc mains replacement and service renewal programs (see table 3.16).[[125]](#footnote-125)

* + - * 1. Envestra proposed ad hoc mains replacement and service renewal data ($'000, 2011)(a)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2008 | 2009 | 2010 | 2011 | 2008-2011 Total |
| Ad hoc mains replacement (metres) | 768 | 200 | 228 | 341 | 1,537 |
| Ad hoc mains replacement ($,000 $2011) |  |  |  |  | 893 |
| Ad hoc services (units) | 860 | 717 | 628 | 562 | 2,767 |
| Ad hoc services ($,000 $2011) |  |  |  |  | 5,273 |

Source: Envestra[[126]](#footnote-126).

Notes: (a) Direct unescalated costs, excluding overheads; data converted into $2011 by the AER.

Given the lumpiness in terms of timing and magnitude of the ad hoc mains replacement expenditure over 2008–11, the AER considers that it is appropriate to forecast the 2013–17 expenditure by calculating the annual average total expenditure over 2008–11 on the basis that this is the best estimate in the circumstances. On the basis of the information supplied to the AER in table 3.16, which was in the order of the expenditure over 2003–07,[[127]](#footnote-127) the AER approves an annual average expenditure of $0.223 million ($2011, direct unescalated costs, excluding overheads) for 2013–17.

For ad hoc services renewal the AER considered the trend in the number of services replaced over 2008–11 and Envestra's forecast of service renewals over the 2013–17 access arrangement period. The AER does not consider that there is a reasonable basis for forecasting a step up in the number of renewals to 600 in 2013 given the gradual decline in the number of service renewals over the 2008–11 period. The AER considers that the decline in service renewals reflects the rollout of the low pressure to high pressure mains replacement program. Therefore in order to provide the best estimate, the AER has interpolated the number of services per year from 562 service renewals in 2011 to 200 service renewals in 2017.

The AER considers that given the variation in the historical unit rates an average unit rate across 2008–11 is more reflective of the unit rates going forward for 2013–17 rather than the 2009–10 average.

This results in revised volumes and unit rates for the ad hoc service renewals program. The AER approves $2.98 million ($2011, direct unescalated costs, excluding overheads) for ad hoc service renewals capex for the total 2013–17 access arrangement period .

Mains replacement for Albury network

Envestra did not propose a planned mains renewal program for its Albury network.

Envestra proposed a capital allowance of $0.05 million ($2011, escalated direct costs, including overheads)[[128]](#footnote-128) for unplanned mains replacements and service renewals.

The annual average expenditure amount in terms of unescalated direct costs for the 2013–17 access arrangement period is 54 per cent lower than the annual average cost over the 2008–12 access arrangement period. The AER therefore considers that this is a reasonable estimate of expenditure and approves $0.05 million ($2011, escalated direct costs, including overheads) total expenditure for ad hoc mains replacement and services renewals.

Connections

Distribution businesses have a regulatory obligation to connect residential and commercial/industrial customers to the distribution network upon request. The capex associated with connecting customers to the distribution network generally includes the cost of new mains, gas service pipe from the main to the meter, and the meter.

The AER considers that connections expenditure is justified under r. 79(2)(c)(iii) of the NGR as it is a regulatory obligation to connect customers to the network.

Victoria network

Envestra has forecast expenditure of $163.7 million ($2011, escalated direct costs, excluding overheads) for customer connections capex over the 2013–17 access arrangement period. This amounts to approximately 22 per cent of Envestra‘s proposed total capex forecast.

Envestra calculated the total capital expenditure for connections by determining the unit costs for mains, inlets and meter components and the forecast number of new connections for Tariff V class customers. The AER agrees with this approach.

Envestra also proposed a unit rate and volume approach for Tariff D. For Tariff D customers expenditure tends to be lumpy in nature due to the customer size and number of the connections. The AER considers an assessment of total expenditure rather than a unit rate and volume assessment is a more appropriate approach to assessing proposed capex.

The expenditure assessed in this section includes connections associated with extending the Envestra network, including under the Regional Development Victoria "Energy for the Regions" program.

In its submission to the AER, the EUCV noted that despite underspending its capex allowance in the current period, Envestra was able to maintain its services at acceptable levels and to connect all customers seeking a connection. Accordingly, the EUCV considered that Envestra's actual capex incurred in the 2008–12 access arrangement period was efficient and that no step up in capex is warranted for the 2013–17 access arrangement period.[[129]](#footnote-129)

In its submission to the AER, Origin Energy noted that Envestra's residential connections capex forecast for the 2013–17 access arrangement period is 25 per cent higher than the 2008–12 period expenditure. Origin queried the increased cost of connections in the 2013–17 access period, given the residential customer growth is comparable to the 2008–12 period.[[130]](#footnote-130)

The AER has taken the EUCV and Origin Energy's observations into account and assessed the basis and justification for the proposed increased capex for connections. This is discussed further in its unit cost analysis section below.

The AER approves residential connections expenditure of $99.8 million ($2011, escalated direct costs, excluding overheads) and total commercial/industrial connections expenditure of $15.6 million ($2011, escalated direct costs, excluding overheads).

The AER's assessment of connections capex volumes and unit rates is outlined below.

Tariff V class customer connections

Tariff V class customer connections are residential and commercial/industrial customers who consume less than 10 TJ/year. Residential and commercial/industrial customers are considered separately because there are different input requirements, especially in relation to services and meters.

Volumes

Envestra provided Core Energy forecasts of net customer connection numbers, which projected annual average residential net customer growth of 2.1 per cent over 2013–17 (down from actual growth of 2.6 per cent over the 2005–10 period) and commercial net customer growth of 0.8 per cent (up from 0.7 per cent over the 2005–10 period)[[131]](#footnote-131) (see attachment 9 of the AER's draft decision for a discussion of the net customer forecasts).

Envestra calculated the number of new customer connections by deriving the gross number of connections from the sum of net connections and gross customer disconnections.

It is unclear from where Envestra derived its net connections numbers. They are higher than those projected by Core Energy.

Envestra forecast gross residential disconnections of 10 per cent of gross residential connections and gross commercial/industrial disconnections of 50 per cent of gross commercial/industrial connections. Envestra stated that these were based on the average of the gross disconnections to gross connections ratio for each year of 2008–11.[[132]](#footnote-132) It is unclear from where the 50 per cent ratio for gross commercial/industrial connections has been derived as it bears no relationship to the historical data. The AER sought to verify the connection ratios from source data supplied by Envestra[[133]](#footnote-133). However the total numbers of gross connections and the derived net connections provided as underlying data do not align with the totals in the proposal. The AER undertook cross-business benchmarking of connection rates and notes that Envestra's ratios are considerably higher than another Victorian gas distribution business, which has a similar growth pattern and mix of new estates and infill to Envestra. Given the lack of consistency in data the AER does not consider that the ratios of disconnections to gross connections have been arrived at on a reasonable basis, as required by r. 74(2)(a) of the NGR. The AER considers that an appropriate alternative is to apply the ratios of the other Victorian gas distribution business.

For Tariff V residential connections Envestra derived the split between existing, new and multi-user dwellings based on the 2011 proportions. The AER does not consider it appropriate to base these projections on one year given the variability in the proportions over 2008–11.

Given the above methodological issues, the AER does not consider Envestra's forecast of gross connections to be arrived at on a reasonable basis and does not provide the best estimate in the circumstances as required by r. 74(2)of the NGR.

The alternative forecast that the AER has proposed for Tariff V residential and commercial/industrial customers consists of the following:

* for deriving gross customer numbers:
* Core Energy's projected net customer numbers are used,
* the historical disconnection to gross connection ratios used by the other Victorian gas distribution businesses for residential and commercial/industrial connections are applied.
* to calculate the existing, multi-user and new home splits for Tariff V residential connections:
* the average of the 2008–11 splits are applied to the gross connection numbers.

The AER has adjusted the gross customer numbers for the 2013–17 access arrangement period accordingly on the basis that Envestra's forecast was not the best estimate possible in the circumstances as required by r. 74(2)(b) of the NGR. This results in a total reduction of 9,867 gross residential connections and 691 gross commercial/industrial connections over the 2013–17 access arrangement period.

Unit costs

Envestra proposed a Tariff V residential and Tariff V commercial/industrial connection unit rate based on unit rate estimates for the 2013–17 access arrangement period for mains, inlets and meters cost estimates for new estate, existing and multi-user type connections. In general, a simple average of the 2009 and 2010 unit rate was used and some adjustments were made for changes in contractor and material costs, based on recent tender outcomes.

The AER has a number of concerns with Envestra's forecasting methodology:

* a simple average was used instead of a weighted average. The AER considers that a weighted average is more appropriate than a simple average as it takes into account the influence of volume on unit rates.
* 2009 and 2010 were used as the base years upon which unit rates were forecast. In assessing the appropriateness of choosing 2009 and 2010 as representative years, the AER noticed that the trends across the 2008–11 period varied across the categories. The AER also understands there are variations in the unit rates as there are a number of different tender areas, which each have different unit rates[[134]](#footnote-134). Depending on the volumes in each area, there will be a fluctuation in the overall unit rate, as this is effectively a weighted unit rate of the work undertaken across the different tender areas.[[135]](#footnote-135) The AER therefore considers that an average across 2008–11 is more appropriate than relying on only 2009 and 2010.
* The AER sought to verify Envestra's claim that increases in unit rates are being driven by increased growth in more expensive areas. The AER considers that the information provided by Envestra did not support its claim[[136]](#footnote-136). The AER therefore does not approve the cost increases claimed to be associated with growth in more expensive areas.
* In order to verify the contract-related increase in unit rates and assess the competitiveness of the tender process through which they were finalised, the AER requested that Envestra provide the contracts, the tender terms of reference and the tender evaluation.[[137]](#footnote-137) Envestra provided contracts to the AER, however, these do not corroborate the unit rates proposed by Envestra. The AER has asked Envestra to provide a mapping from the contracts to the proposed unit rates[[138]](#footnote-138) but Envestra stated that it is unable to provide the mapping requested[[139]](#footnote-139). The AER therefore does not approve any cost increases associated with this claimed increase in tender costs.
* The AER does not consider that material escalation on certain cost inputs should be applied to internal cost build ups as this is captured by the escalation which is applied to the base unit rates as per the capex forecast model. This would be double counting so the AER does not approve the increase in material costs.

The AER has calculated revised unit rates by taking a weighted average of the 2008–11 components.

This results in:

* a Tariff V residential connection unit rate of $1,610 ($2011, escalated direct costs, excluding overheads) and AER approved total expenditure for the 2013–17 access arrangement period of $99.8 million ($2011, escalated direct costs, excluding overheads) and
* a Tariff V commercial/industrial rate of $12,151 ($2011, escalated direct costs, excluding overheads) and AER approved total expenditure for the 2013–17 access arrangement period of $15.2 million ($2011, escalated direct costs, excluding overheads).

The AER considers that the capital expenditure is justifiable as it is necessary to comply with a regulatory obligation, under r. 79(2)(c)(iii) of the NGR and that these capex amounts are consistent with r. 79(1)(a) of the NGR.

Large customer connections (Tariff D)

Large customer connections expenditure was forecast by Envestra on the basis of the number of new connections and the number of upgrades per year multiplied by the associated unit rate.[[140]](#footnote-140)

The AER notes that there is considerable variability in the numbers of gross connections and no strong relationship between the connection numbers and the total cost. Therefore the AER does not consider that a per connection estimate of costs is a reasonable basis for estimating costs for these types of connections.

Furthermore, the AER notes that there is considerable inconsistency in the historical net connection numbers provided by Envestra to the AER. The historical net connection numbers are a key input into forecasting future net connection numbers. The Core Energy Tariff D net connection numbers do not correspond with the RIN and information request response numbers presented by Envestra.

Given the lack of correlation between the total cost and the number of gross connections, and the lack of consistency between the connection numbers presented by Envestra, the AER does not consider that Envestra's forecast has been arrived at on a reasonable basis as required under r.74(2)(a) of the NGR. The AER considers that an appropriate alternative forecast is to project forward an average of the 2008–10 actual expenditure. This results in a total large customer expenditure of $0.3 million ($2011, unescalated direct costs, excluding overheads) over the 2013–17 access arrangement period.

In summary, for the Victorian network, the AER approves residential connections expenditure of $99.8 million ($2011, escalated direct costs, excluding overheads) and total commercial/industrial connections expenditure of $15.2 million ($2011, escalated direct costs, excluding overheads).

Albury network

Envestra has forecast expenditure of $3.8 million ($2011, escalated direct costs, excluding overheads) for customer connections capex over the 2013-17 access arrangement period. This amounts to approximately 56 per cent of Envestra‘s proposed total capex forecast.

The AER approves total expenditure for the 2013–17 access arrangement period of $2.8 million ($2011, escalated direct costs, excluding overheads) for Tariff V residential connections and $0.13 million ($2011, escalated direct costs, excluding overheads) for Tariff V commercial/industrial connections.

Tariff V class customer connections

Tariff V class customer connections are residential and commercial/industrial customers who consume less than 10 TJ/year. Residential and commercial/industrial customers are considered separately because there are different input requirements, especially in relation to services and meters.

Volumes

Envestra provided Core Energy forecasts of net customer connection numbers, which projected annual average residential net customer growth of 1.6 per cent over 2013–17 (down from actual growth of 1.9 per cent over the 2005–10 period) and commercial net customer growth of 0.3 per cent (steady at 0.3 per cent over the 2005–10 period)[[141]](#footnote-141) (see attachment 9 of the AER's draft decision for a discussion of the net customer forecasts).

Envestra calculated the number of new customer connections by deriving the gross number of connections from the sum of net connections and gross customer disconnections.

It is unclear from where Envestra derived its net connections numbers. They are higher than those projected by Core Energy.

Envestra forecast gross residential disconnections of 8 per cent of gross residential connections and gross commercial/industrial disconnections of 50 per cent of gross commercial/industrial connections. Envestra stated that these were based on the average of the gross disconnections to gross connections ratio for each year of 2008–11.[[142]](#footnote-142) It is unclear from where the 50 per cent ratio for gross commercial/industrial connections has been derived as it bears no relationship to the historical data. The AER sought to verify the connection ratios from source data supplied by Envestra, however the total numbers of gross connections and the derived net connections provided as underlying data do not align with the totals advanced in the proposal. The AER undertook cross-business benchmarking of connection rates and noted that Envestra's ratios were considerably higher than another Victorian gas distribution business, which has a similar growth pattern and mix of new estates and infill to Envestra. Given the lack of consistency across the data sets the AER does not consider that the ratios of disconnections to gross connections have been arrived at on a reasonable basis, as required by r. 74(2)(a) of the NGR. The AER considers that an appropriate alternative is to apply the other Victorian gas distribution business' ratios.

For Tariff V residential connections Envestra derived the split between existing, new and multi-user dwellings based on the 2011 proportions. The AER does not consider it appropriate to base these projections on one year given the variability in the proportions over 2008–11.

Given the above methodological issues, the AER does not consider Envestra's forecast of gross connections to be the best estimate available in the circumstances as required by r. 74(2)(b) of the NGR.

The alternative forecast that the AER has proposed for Tariff V residential and commercial/industrial customers consists of the following:

* for deriving gross customer numbers
* Core Energy's projected net customer numbers are used
* the historical disconnection to gross connection ratio used by another Victorian distribution business for residential and commercial/industrial connections are applied
* to calculate the existing, multi-user and new home splits for Tariff V residential connections
* the average of the 2008–11 splits are applied to the gross connection numbers.

The AER has adjusted the gross customer numbers for the 2013–17 access arrangement period accordingly, on the basis that Envestra's forecast was not the best estimate is the circumstances as required under r. 74(2)(b) of the NGR. This results in a total reduction of 220 gross residential connections and 6 gross commercial/industrial connections over the 2013–17 access arrangement period.

Unit costs

Envestra's Tariff V residential and Tariff V commercial/industrial connection unit rate estimates for the 2013–17 access arrangement period are built up from mains, inlets and meters cost estimates for new estate, existing and multi-user type connections. In general a simple average of the 2009 and 2010 unit rates is used, plus adjustments for the latest tender information are applied.

The AER has a number of concerns with Envestra's forecasting methodology:

* a simple average was used instead of a weighted average. The AER considers that a weighted average is more appropriate than a simple average as it takes into account the influence of volume on unit rates.
* 2009 and 2010 were used as the base years upon which most unit rates were forecast. In assessing the appropriateness of choosing 2009 and 2010 as representative years, the AER noticed that the trends across the 2008–11 period varied across the categories. The AER therefore considers that an average across 2008–11 is more appropriate than relying on only 2009 and 2010.
* The AER requested that Envestra provide the contracts, the tender terms of reference and the tender evaluation in order to verify the rates and assess the competitiveness of the tender process.[[143]](#footnote-143) Envestra provided contracts to the AER, however these do not corroborate the unit rates proposed by Envestra. The AER has asked Envestra to provide a mapping from the contracts to the proposed unit rates[[144]](#footnote-144) but Envestra advised that it was unable to provide a mapping. The AER therefore does not approve any cost increases associated with this claimed increase in tender costs. The AER therefore does not approve any cost increases associated with this claimed increase in tender costs.

The AER has calculated revised unit rates by taking a weighted average of the 2008–11 components. This results in:

* a Tariff V residential connection unit rate of $1,640 ($2011, escalated direct costs, excluding overheads) and AER approved total expenditure for the 2013–17 access arrangement period of $2.8 million ($2011, escalated direct costs, excluding overheads) and
* a Tariff V commercial/industrial rate of $6,080 ($2011, escalated direct costs, excluding overheads) and AER approved total expenditure for the 2013–17 access arrangement period of $0.13 million ($2011, escalated direct costs, excluding overheads).

The AER considers that the capital expenditure is justifiable as it is necessary to comply with a regulatory obligation, under NGR r. 79(2)(c)(iii) and that these capex amounts are consistent with r. 79(1)(a) of the NGR.

Meter replacements

Meter replacement is an ongoing activity which is necessary to ensure that gas meters in the field are replaced when they fail to accurately read data. The Gas Distribution Code[[145]](#footnote-145) requires that meters read customers' gas usage accurately within an acceptable error tolerance range. Gas meters are continually sampled and tested for accuracy. Based on sample test results, meter families[[146]](#footnote-146) are allocated a life and a forecast replacement date. Sample testing is conducted in accordance with the in-service compliance standard.[[147]](#footnote-147)

The AER considers that Envestra’s meter replacement capex complies with r. 79(2)(c)(ii) of the NGR as it is required to maintain the integrity of gas services. Envestra's meter replacement program relates to both residential and industrial and commercial meters and comprises the following sub components:[[148]](#footnote-148)

* Periodic meter changes (PMC)—Meters at the end of their in-service compliance periods (i.e. useful life) are removed from the field and replaced with new or refurbished assets of similar capacity
* Field Life Extension tests – the test procedures allow for meter families to receive either a 1 year, 3 year or 5 year life extension depending upon test results
* Faults/damages – Envestra reactively replaces meters that fail in operation
* Upgrades/downgrades of sites – Envestra upgrades or downgrades a number of meters each year.

The AER considered the basis on which Envestra arrived at its forecasts of the replacement volumes and the cost (on a unit rate basis) of removing and replacing the meters. Specifically, the AER considered the:

* Efficiency and prudency of the proposed meter replacement volumes by examining the age of the meters Envestra is proposing to remove and ensuring this is in a reasonable age range. The AER has determined this reasonable range having regard to the initial 15 year life of meters and the availability of sampling and maintenance techniques to extend meter life beyond 15 years.
* The efficient mix of using refurbished and new meters in meter replacement, and
* Efficiency of proposed unit rates of meters replaced as being reflective of the lowest sustainable input costs.

In its submission to the AER, the EUCV noted that despite underspending its capex allowance in the current period, Envestra was able to maintain its services at acceptable levels and to connect all customers seeking a connection. Accordingly, the EUCV concluded that Envestra's actual capex incurred in the 2007–11 period was efficient and that no step up in capex is warranted for the 2013–17 access arrangement period.[[149]](#footnote-149) The AER understands that meter replacement capex may be uneven in nature and so examined Envestra’s proposed cost build-up as-well as the historical level of capex. The AER considers that meter replacement capex for Victoria of $30.4 million complies with r. 74(2) and r. 79(1) of the NGR. The AER considers meter replacement capex for Albury of $0.5 million complies with r. 79(1) of the NGR. The AER's consideration of volumes and unit costs is outlined in detail below.

In response to an AER information request, Envestra acknowledged an error in the unit rates incorporated into its capex forecast model for Victoria.[[150]](#footnote-150) Additionally, a detailed breakdown of meter replacement volumes provided to the AER indicated a small discrepancy with those contained in Envestra’s capex forecast model for Victoria.[[151]](#footnote-151) Accordingly the AER does not consider that the meter replacement capex for Envestra Victoria complies with r. 74(2) and r. 79(1) of the NGR.

However, the AER considered the corrected volumes and unit rates in detail to examine whether these comply with r. 74(2) or r. 79(1) of the NGR. The AER considers that the corrected volumes and unit rates do comply with r. 74(2) and r. 79(1) of the NGR. Table 3.17 and Table 3.18 show Envestra's proposed network capex for Victoria and Albury, respectively, and the AER’s draft decision on meter replacement capex over the 2013–17 access arrangement period.

* + - * 1. Envestra meter replacement capex for Victoria ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra proposed | 3.8 | 7.9 | 6.3 | 12.4 | 4.6 | 35.0 |
| AER approved | 3.5 | 6.6 | 5.5 | 10.4 | 4.4 | 30.4 |
| Difference | –0.4 | –1.3 | –0.7 | –2.1 | –0.2 | –4.6 |

Source: AER analysis.

* + - * 1. Envestra meter replacement capex for Albury ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra proposed | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 |
| AER approved | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 |
| Difference | – | – | – | – | – | – |

Source: AER analysis.

Domestic meter replacements volumes

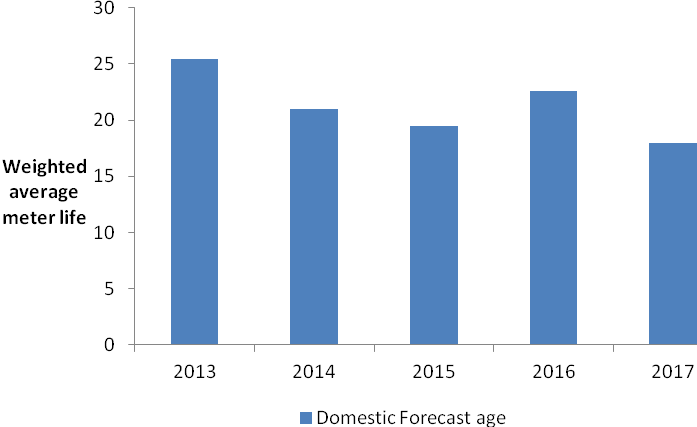
Domestic meter replacements comprise the bulk of total meter replacements. Envestra proposed to replace 239,980 domestic meters for its Victoria network at a total capex of $27.5 million ($2011, escalated direct costs, excluding overheads)[[152]](#footnote-152) over the 2013–17 access arrangement period. Envestra proposed to replace 2942 domestic meters for its Albury network at a total capex of $0.35 million ($2011, escalated direct costs, excluding overheads)[[153]](#footnote-153) capex over the 2013–17 access arrangement period.

Domestic meter replacements (PMC)

The AER examined the age of the meter families when Envestra proposes to remove the meter from the field.

As demonstrated in figure 3.5 the average age of meters when Envestra proposes to remove meters from its Victoria network from service ranges from approximately 18 to 25 years. The AER considers this reflects a reasonable average age range for meter replacement. The AER reached this conclusion taking into account the initial life of 15 years and the possibility of extending meter life beyond 15 years as a result of meter sample tests. This range of meter lives suggests that these works are necessary to meet mandated meter operating requirements and that the works are not overstated or undertaken unnecessarily.

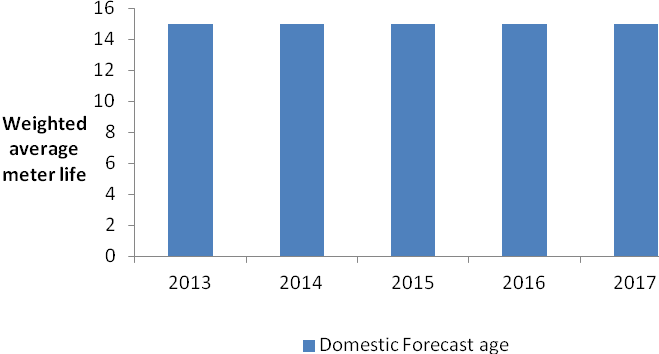
* + - 1. Envestra average meter age at time of replacement for Victoria



Source: AER analysis, Envestra.[[154]](#footnote-154)

Envestra's gas sampling plan states that meter family selection will be based on an economic analysis, and sampling only occurs if there is a sufficient volume of meters in the field for sampling to be economic.[[155]](#footnote-155) The AER understands that due to the small volumes it is not cost effective to conduct a meter sampling regime in the Albury region. Rather, it is preferable to remove all meters in the family from the field when they reach the end of the initial life. The AER therefore considers that it is reasonable to remove these meters shortly before the 15 year initial life expires. Figure 3.6 below depicts the age profile of Envestra's domestic meters for its Albury network being replaced.

* + - 1. Envestra average meter age at time of replacement for Albury



Source: AER analysis, Envestra.[[156]](#footnote-156)

Field life extension tests

Envestra stated that its testing program complies with the statistical methods outlined in AS/NZS 4944:2006.[[157]](#footnote-157) In response to a further information request Envestra provided a copy of its Gas Meter In-service Compliance Procedure.[[158]](#footnote-158)

This standard outlines two methods of statistical analysis that can be adopted for in-service compliance testing. Envestra's Gas Meter In-service Compliance Procedure states that it has adopted the “Variables” method of sample testing.[[159]](#footnote-159) The "Variables" method requires a smaller sample size than the "Attributes" method. However, if the meters fail the "Variables" method, then the sample size may be increased and the meter family tested under the "Attributes" method.

The AER examined Envestra's proposed approach and considers that this is a reasonable approach to the statistical sampling and the proposed volumes are reasonable. By first performing sampling under the variables method, Envestra has minimised the total number of meters that it needs to sample. Therefore, the AER considers the proposed volumes are consistent with r. 74(2) of the NGR and prudent and efficient.

Faulty Meters

Envestra proposed to replace 4277 meters per annum in Victoria due to meters being faulty. Envestra proposed to replace 164 meters per annum in Albury due to meters being faulty. Envestra indicated that this forecast is based on 2010–11 actual replacements and that this is the most recent data available.[[160]](#footnote-160)

The AER requested additional information about the historical number of meter faults in both Albury and Victoria.[[161]](#footnote-161) Envestra provided additional information on the historical number of meter faults in both Albury and Victoria.[[162]](#footnote-162) This information indicated that the average number of faulty meters replaced over the 2008–12 period was higher than that forecast for the   
2013–17 access arrangement period. On this basis, the AER considers that the historical number of meter faults supports the forecast proposed by Envestra and so considers this forecast volume complies with r. 74(2) of the NGR.

Upgrade/Downgrade changes

Envestra has forecast that it will upgrade/downgrade 400 residential meters per annum in Victoria. Envestra has forecast that it will upgrade/downgrade 1 residential meter per annum in Albury.

The AER requested additional information about the historical number of upgrades and downgrades in both Albury and Victoria.[[163]](#footnote-163) Envestra provided additional information on the historical number of upgrade/downgrade in both Albury and Victoria.[[164]](#footnote-164) This information indicated that the average number of upgrades/downgrades over the   
2008–12 access arrangement period was higher than that forecast for the 2013–17 access arrangement period. On this basis, the AER considers that the historical number of upgrades/downgrades supports the forecast proposed by Envestra and so considers this forecast volume complies with r. 74(2) of the NGR.

Industrial and commercial meter replacements

Envestra proposed to replace 6794 I&C meters in Victoria with a total capex of $7.4 million[[165]](#footnote-165) over the 2013–17 access arrangement period. Envestra proposed to replace 222 I&C meters in Albury with a total capex of $0.14 million[[166]](#footnote-166) over the 2013–17 access arrangement period.

I&C meters are not subject to meter sampling tests, and instead are allocated a deemed meter life and replaced just before the end of the deemed life. Envestra submitted that I&C meters are changed at 10 year intervals and overhauled, repaired and tested for re-use.[[167]](#footnote-167) The AER requested detailed information from Envestra about the age at which Envestra proposed to replace I&C meters in the 2013–17 access arrangement period[[168]](#footnote-168) and the age at which it has historically removed I&C meters from service.[[169]](#footnote-169) Envestra provided a breakdown of the forecast age at which it proposes to remove I&C meters from the field.[[170]](#footnote-170) The AER notes that Envestra proposes to remove small I&C meters after 15 years and larger I&C meters after 10 years. The AER considers that for I&C meters this is a reasonable approach to meter replacement and concludes that Envestra’s meter replacement program complies with r. 79(1) of the NGR.

Unit rates

Envestra supplied a model demonstrating the component costs of it meter replacement program.[[171]](#footnote-171) This allowed the AER to examine:

* Costs of new and refurbished meters (for both residential and commercial meters)
* Labour costs (including both internal and external labour)
* Other costs—including transport costs and warehousing of refurbished meters

In response to an AER information request, Envestra provided some additional information on the components of its estimate of meter unit costs.[[172]](#footnote-172) Further, Envestra provided contracts demonstrating the costs of new and refurbished meters.[[173]](#footnote-173)The AER also compared the total cost per meter (including purchase costs, refurbishment and installation costs) against other gas distributors and found that Envestra's proposed rates compared favourable against the other gas distributors. Having considered the available information and the overall level of costs proposed by Envestra, the AER considers the corrected unit rates provided by Envestra are prudent, efficient and comply with rule 79(1)(a).

The blended unit rates for the sub components of Envestra's meter replacement program are set out confidential appendix A.

Augmentation

Network augmentation capex is directed at increasing the capacity of the existing network to meet demand of existing and future customers. Augmentation capex is required to maintain gas pressure and minimise the risk of gas outages.

Envestra proposed augmentation capex to provide for:

* Reinforcement of network areas which are vulnerable to gas supply constraints, as well as improvements to reduce the likelihood of gas outages occurring.
* A network that is capable of continuously satisfying the demand for services, particularly in high growth areas.
* The availability of high pressure gas in a manner that supports the systematic and planned replacement of low pressure mains[[174]](#footnote-174).

Envestra proposed augmentation capex of $45.8 million ($2011, unescalated direct costs, excluding overheads) for the Victorian network and $0.4 million ($2011, unescalated direct costs, excluding overheads) for the Albury network for the 2013–17 access arrangement period. Envestra's proposed augmentation capex projects are listed in table 3.19.

* + - * 1. Envestra's proposed augmentation capital expenditure ($million, 2011)(a)

|  |  |
| --- | --- |
| Region | Total |
| H07 - Cranbourne | 3.0 |
| H08 - Lynbrook | 0.5 |
| H10 - Frankston | 0.4 |
| H14 - Wodonga | 0.3 |
| H15 - Mornington | 0.9 |
| H18 - Thomastown | 7.9 |
| H20 - Plenty Valley | 0.6 |
| H30 - Trafalgar | 0.4 |
| H32 - Pakenham | 3.3 |
| H35 - Morwell | 0.5 |
| Various HP Networks | 0.3 |
| H58 - Drouin | 0.1 |
| H67 - Berwick | 0.9 |
| H70 - Moe | 0.2 |
| H83 - Kilmore | 0.2 |
| H85 - Echuca | 0.2 |
| H90 - Healesville | 0.7 |
| HP - Unspecified | 3.0 |
| TP13 - Sale | 5.3 |
| TP43 - Dandenong - Frankston | 0.1 |
| TP44 - Dandenong - Crib Point | 16.6 |
| H37 - Traralgon | 0.5 |
| Victoria Total | 45.8 |
| H54 - Albury | 0.4 |
| Albury Total | 0.4 |

Source: Envestra.[[175]](#footnote-175)

Notes: (a) Direct costs excluding escalation and overheads.

In its submission to the AER, the EUCV stated that augmentation capex will be required to support the network to meet small increases in short term gas demand peaks.[[176]](#footnote-176) The EUCV considered that Envestra's historical augmentation capex reflects the requirements to meet the consistent increases in peak demand.[[177]](#footnote-177)

In its submission to the AER, Origin Energy noted that Envestra underspent its augmentation capex allowance in the 2007–11 period by around 50 per cent.[[178]](#footnote-178) Origin stated that the deferral of expenditure in the 2008–12 access arrangement period should have resulted in a significant deterioration in Envestra's network reliability and service integrity.[[179]](#footnote-179)

The AER assessed Envestra's augmentation projects by considering the timing of the proposed works, the capacity benefit which results from the augmentation solution and whether the input cost of each project represents the efficient, lowest sustainable cost. In undertaking this assessment the AER sought input from its engineering consultant, examined the business cases and requested further information from Envestra.

On the basis of advice provided by the AER's engineering consultant, Zincara[[180]](#footnote-180), the AER considers that the majority of Envestra's augmentation expenditure is justifiable under r. 79(2)(c)(i)-(iii) of the NGR as it is necessary to maintain or improve the safety and integrity of services. The AER does not consider that the augmentation program is justifiable under r.79(2)(c)(iv) of the NGR as this implies that the capacity is inadequate to meet existing demand in which case gas pressures would be below the required minimum standards. A planned augmentation strategy would normally be done in advance of emerging capacity constraints and so would not fall under r. 79(2)(c)(iv) of the NGR.

The AER approves $25.9 million ($2011, unescalated direct costs, excluding overheads) of Envestra's $45.8 million ($2011, unescalated direct costs, excluding overheads) proposed augmentation capex and for its Victorian network and all of Envestra proposed $0.4 million capex ($2011, unescalated direct costs, excluding overheads) for its Albury network (see table 3.20). The AER considers that this capex complies with r. 79(1) of the NGR for the following reasons:

* The AER considers that Envestra's proposed augmentation solutions are reasonable in light of forecast connections growth to address a decline in gas pressure along the constrained network areas.[[181]](#footnote-181)
* Additionally, the AER has determined that input costs of augmentation projects are within a reasonable range and reflect that of a prudent and efficient service provider.[[182]](#footnote-182)

A number of augmentation projects were proposed to address connections growth within the networks of the Mornington Peninsula and Cranbourne growth corridors. The AER considered the overall area demand and the joint capacity effects of the proposed solutions and found them to be prudent and efficient in addressing the network constraints within the Mornington Peninsula and Cranbourne areas.

However, drawing upon the advice of its engineering consultant, Zincara, the AER does not approve capex for the following augmentation projects:

H30 Trafalgar HP network augmentation

Envestra provided information on modelled fringe point pressures. The AER has considered this information and, based on the advice of Zincara[[183]](#footnote-183), considers that the augmentation is unlikely to be required within the 2013–17 access arrangement period. The AER does not approve the two projects worth $0.4 million ($2011, unescalated direct costs, excluding overheads).

Projects proposed for 2016 for the V59-Pakenham HP network augmentation

Envestra projected higher growth than the AER consider reasonable, given the comparison of Envestra's projected growth rate to that of the Victorian Department of Planning and Community Development[[184]](#footnote-184). Given these lower growth projections and the uncertainty surrounding the timing of the proposed development in the area, based on the advice of Zincara[[185]](#footnote-185), the AER does not consider that the augmentation will be required in the 2013–17 access arrangement period. The AER does not approve the two projects worth $1.2 million ($2011, unescalated direct costs, excluding overheads) on the basis that the proposed capex does not comply with r. 79(1) of the NGR and is not justifiable under r. 79(2)(c)(i)-(iii) of the NGR and forecasts of the proposed capex do not comply with r. 74(2)(a) of the NGR.

HP unspecified

This is a provision for small augmentations that have not been forecast in advance.

The AER does not consider that the amounts projected by Envestra under 'HP unspecified' to be a reasonable forecast as required by r. 74(1)(a) of the NGR. Envestra has forecast an exponential increase in the HP unspecified expenditure over the 2013–17 access arrangement period based on its 2008-12 expenditure profile. Envestra has not justified the significant step up in expenditure for the 2015–17 period.

Based on the advice of Zincara[[186]](#footnote-186), the AER considers that Envestra has forecast this contingency allowance on the basis that there is greater uncertainty in the outer years. However, while the AER acknowledges that there is likely to be greater forecast uncertainty over time, this uncertainty relates to both this contingency allowance as well as to the specific augmentation projects proposed for the 2013-17 access arrangement period. Hence the AER considers that there is greater uncertainty in whether the specific projects will proceed. Given this uncertainty, the AER considers that augmentation expenditure will be reallocated according to the network priorities in the outer years.

Furthermore, the AER has reviewed the project expenditure within the unspecified contingency carried out in 2011 and 2012. Most of the material projects were in the known growth areas of Epping, Cranbourne North, Cranbourne South and Pakenham. Envestra has assessed these areas thoroughly which should reduce the likelihood of other projects arising in the 2013-17 access arrangement period.

In arriving at an alternative forecast the AER considers that the first two years of Envestra's major augmentation projects have been planned in detail and so the $0.25 million ($2011, unescalated direct costs, excluding overheads) expenditure forecast in the first two years represents a reasonable estimate of the allocation required to cover unforeseen small projects.

The AER therefore does not approve the $2.95 million total expenditure proposed over the 2013–17 access arrangement period on the basis that the proposed capex does not comply with r. 79(1)(a) of the NGR and is not justifiable under r. 79(2)(c)(i)-(iii) of the NGR. The AER considers that the forecasts used to calculate the proposed capex do not comply with r. 74(2)(a) of the NGR. The AER approves a capex allowance of $0.25 million per year, or $1.25 million ($2011, unescalated direct costs, excluding overheads) over the 2013–17 access arrangement period.

TP44 - Dandenong - Crib Point and TP 43 - Dandenong - Frankston

On the basis of commercial in confidence customer demand information and the advice of Zincara[[187]](#footnote-187), the AER does not consider that the augmentation is required. The AER therefore does not approve the $16.6 million ($2011, unescalated direct costs, excluding overheads) proposed for augmentation of TP44 - Dandenong - Crib Point and the $0.1 million ($2011, unescalated direct costs, excluding overheads) proposed for TP43 - Frankston. The proposed capex does not comply with r. 79(1)(a) of the NGR and is not justifiable under r. 79(2)(c)(i)-(iii) of the NGR and forecasts used to calculate the proposed capex do not comply with r. 74(2)(a) of the NGR.

* + - * 1. AER approved augmentation expenditure ($million, 2011)

|  |  |
| --- | --- |
| Region | Total |
| H07 - Cranbourne | 3.0 |
| H08 - Lynbrook | 0.5 |
| H10 - Frankston | 0.4 |
| H14 - Wodonga | 0.3 |
| H15 - Mornington | 0.9 |
| H18 - Thomastown | 7.9 |
| H20 - Plenty Valley | 0.6 |
| H30 - Trafalgar | 0 |
| H32 - Pakenham | 2.1 |
| H35 - Morwell | 0.5 |
| Various HP Networks | 0.3 |
| H58 - Drouin | 0.1 |
| H67 - Berwick | 0.9 |
| H70 - Moe | 0.2 |
| H83 - Kilmore | 0.2 |
| H85 - Echuca | 0.2 |
| H90 - Healesville | 0.7 |
| HP - Unspecified | 1.3 |
| TP13 - Sale | 5.3 |
| TP43 - Dandenong - Frankston | 0 |
| TP44 - Dandenong - Crib Point | 0 |
| H37 - Traralgon | 0.5 |
| Victoria Total | 25.9 |
| H54 - Albury | 0.4 |
| Albury Total | 0.4 |

Source: AER analysis.

Information technology

Envestra's IT capex proposal mainly relates to the upgrade of IT systems that have reached the end of their lifecycles and improvements in Envestra’s business processes.[[188]](#footnote-188)

Envestra's proposed capital expenditure of $17.9 million ($2011, unescalated direct costs, excluding overheads) for IT projects for the 2013–17 access arrangement period (see table 3.21). The proposed projects cover both of Envestra's networks, with Envestra allocating capex by customer numbers.

* + - * 1. Envestra proposed IT capital expenditure(a)(b) ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra proposed direct cost | 7.3 | 8.0 | 3.3 | 0.2 | 0.8 | 19.6 |

Source: Envestra.[[189]](#footnote-189)

Notes: (a) Escalated direct costs, excluding overheads

(b) The totals in the Access Arrangement Information (Table 7.4, p.125) do not equal the sum of the business cases.

Envestra submitted that the IT projects comply with r. 79(1) of the NGR and are justifiable under r. 79(2) of the NGR.[[190]](#footnote-190) The majority of the proposed IT projects were approved by the ESC in the 2008–12 access arrangement period, but were deferred by Envestra.

In its submission to the AER, the EUCV noted Envestra's large underspend on IT. In addition, the EUCV highlighted that Envestra's proposed capex for the 2013–17 access period is effectively the same amount that the ESC approved in the 2008–12 period. The EUCV considered it is probable that the IT capex is still needed to undertake the IT work program approved by the ESC in 2008. The EUCV stated thatconsumers have borne the cost but have not benefitted from the deferral of the expenditure to date.[[191]](#footnote-191)

The AER assessed Envestra's IT projects by considering the justifications for the proposed works, and whether the costs are efficient. In undertaking this assessment the AER examined business cases provided by Envestra, obtained advice from the Nous Group, considered historical costs and external benchmarks, and where necessary requested further information from Envestra.

The AER generally agrees with the EUCV's observation that the IT capex Envestra deferred over the 2008–12 period will be necessary during the 2013–17 period in order to undertake its IT work program.

The AER approves IT capex for all Envestra's proposed IT projects apart from Envestra's proposed amount for the implementation of a knowledge management system and the interval meter data management project. The AER considers that the capex proposed for the knowledge management system does not comply with r. 79(2)(c)(i) or (iii) of the NGR. Envestra did not adequately identify the specific regulatory change event that is driving the proposed expenditure for this project. The interval meter data management[[192]](#footnote-192) project proposed by Envestra is not approved as Envestra has not provided evidence that the project is necessary to meet network safety or integrity requirements or regulatory obligations.The AER accepts Envestra's use of customer numbers to allocate IT expenditure between its Victorian and Albury network as compliant with r. 74(2)(a) of the NGR.

The AER approves $16.3 million ($2011, escalated direct costs, excluding overheads) in IT capex over the 2013–17 access arrangement period. This is apportioned as $15.7 million ($2011, unescalated direct costs, excluding overheads) for Envestra's Victorian network and $0.5 million ($2011, unescalated direct costs, excluding overheads) for Envestra's Albury network.

SCADA

Supervisory Control and Data Acquisition (SCADA) systems are used to control and monitor station plant remotely via Remote Telemetry Units (RTUs). The monitoring includes instrumentation, pressure, temperature, flow, environmental monitoring and other event data.

Envestra proposed to install SCADA pressure monitoring and/or control facilities at 57 field regulator sites located in regional areas. The forecast cost was based on all 57 sites being monitoring sites. Envestra later confirmed that 14 of the sites are planned as control sites, and so revised its proposal to include the additional cost differential associated with the change from monitoring to control.[[193]](#footnote-193)

The AER assessed Envestra's proposed SCADA-related capital expenditure projects by considering the justifications for the proposed works, and whether the unit costs represent the efficient, lowest sustainable cost. In undertaking this assessment the AER examined the business cases, considered historical costs and external benchmarks, and requested further information from Envestra.

The AER considers that Envestra's proposed SCADA capex is justifiable under r. 79(2)(ii) of the NGR. The AER also considers that the proposed capex complies with r. 79(1)(a) of the NGR.

The AER approves total capex of $1.2 million ($2011, unescalated direct costs, excluding overheads) for its SCADA systems for the Victorian and Albury networks for the 2013–17 access arrangement period.

Other non-demand capex

Other non-demand capex is capital expenditure which generally relates to replacing and upgrading individual components of the distribution network or smaller upgrade projects.

Envestra proposed 19 capex projects for Victoria in the other non-demand category. The AER considered that two of these projects fit under the IT category and assessed these in the IT category[[194]](#footnote-194). Accordingly the AER considers that there are 17 projects which fit in the other category of capex, with a total proposed expenditure of $52.1 million ($2011, unescalated direct costs, excluding overheads).

The AER approves $17.8 million ($2011, direct escalated costs) of Envestra's proposed $52.1 million ($2011, direct escalated costs) other non-demand capex over the 2013–17 access arrangement period. The AER does not approve $34.3 million ($2011, unescalated direct costs, excluding overheads) of Envestra's proposed capex on the basis that it does not comply with r. 79(1)(a), r. 79(2) or r. 74 of the NGR.

* + - * 1. Envestra other non-demand capital expenditure proposal for Victoria ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra proposed | 13.1 | 15.4 | 10.6 | 6.6 | 6.5 | 52.1 |
| AER approved | 3.8 | 5.1 | 4.3 | 2.5 | 2.2 | 17.8 |
| Difference | –9.3 | –10.3 | –6.3 | –4.1 | –4.3 | –34.3 |

Source: AER analysis, Envestra.

Envestra proposed six capex projects for Albury in the other non-demand category. The AER considered that one of these projects fits under the IT category and assessed it in the IT category.[[195]](#footnote-195) Accordingly, the AER considers that there are five projects which fit in the other non‑demand category of capex, with a total proposed expenditure of $0.82 million ($2011, direct escalated costs, excluding overheads).

The AER approves $0.01 million ($2011, direct escalated costs, excluding overheads) of Envestra's proposed $0.82 million ($2011, direct escalated costs, excluding overheads) other non-demand capex over the 2013–17 access arrangement period. The AER does not approve $0.81 million ($2011, direct escalated costs, excluding overheads) of Envestra's proposed other non demand capex over the 2013–17 access arrangement period. The AER does not approve this expenditure on the basis that it does not comply with r. 79(1) or r. 74 of the NGR.

* + - * 1. Envestra other non-demand capital expenditure proposal for Albury ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra proposed | 0.32 | 0.30 | 0.12 | 0.05 | 0.05 | 0.82 |
| AER approved | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| Difference | –0.32 | –0.29 | –0.11 | –0.04 | –0.05 | –0.81 |

Source: AER Analysis, Envestra.

The proposed and approved capex allowances for each individual project are set out in confidential appendix A.

The largest projects related to bushfire preparedness, Vegetation Management and NECF implementation. There were also projects relating to upgrading or replacing miscellaneous items. Detailed information on the proposed other non-demand projects are in the following confidential attachments to Envestra's submission:

* Appendix V95 - Alterations Non Chargeable
* Appendix V20 - Bushfire Preparedness
* Appendix V24 - Flow Correctors
* Appendix V35 - City Gate Lightning Protection
* Appendix VA36 - City Gate Pipework Lagging
* Appendix V38 - Transmission Valve Refurbishment
* Appendix V40 - Gas Pipes in Drains
* Appendix V42 - Replacement of Anode Beds
* Appendix V04 - Refurbishment of Dandenong to Crib Point Pipeline
* Appendix V45 - Water Bath Heaters
* Appendix VA06 - Network Monitoring and Control
* Appendix V08 - TD Williamson Equipment Replacement
* Appendix V22 - Plant and Equipment
* Appendix VA23 - Technical Training Modules
* Appendix V96 - Field Assets Alterations and Replacement
* Appendix VA46 - National Energy Customer Framework
* Appendix VA33 - Easement Vegetation Management
* Appendix VA96 - Field asset replacement and refurbishment

Projects which comply with the NGL and NGR requirements.

The AER considers that the following projects are justifiable under r. 79(2) of the NGR and would be incurred by a prudent and efficient distribution business acting in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services in accordance with r. 79(1)(a) of the NGR. The AER also considers these forecasts have been arrived at on a reasonable basis.

* Mains alterations
* TD Williamson replacement equipment
* Lagging of city gate pipework
* Water bath heater modifications
* Anode bed replacement

Projects which do not comply with the definition of capital expenditure in rule 69 of the NGR

The AER considers that the following project does not comply with r. 69 of the NGR because the expenditure does not meet the definition of capex

* Easement vegetation management

Envestra proposed to implement a vegetation management program to initially clear mature and over grown vegetation along transmission pipeline easements and then monitor and clear these pipeline corridors on a routine basis (3 to 5 year program) to ensure they remain free of significant vegetation growth.[[196]](#footnote-196) The AER considers that Envestra's vegetation management program represents an expense incurred in maintaining its pipelines and does not represent an asset from which Envestra may receive a future economic benefit. The AER has considered the AASB 116 Property, Plant and Equipment standard, which relates to the recognition of assets relating to property, plant and equipment. AASB 116 (paragraph 7) requires that the cost of an item of property, plant and equipment shall be recognised as an asset if, and only if it is probable that future economic benefits associated with the item will flow to the entity. Further AASB 116 (paragraph 12) requires:

"Under the recognition principle in paragraph 7, an entity does not recognise in the carrying amount of an item of property, plant and equipment the costs of the day-to-day servicing of the item. Rather, these costs are recognised in profit or loss as incurred. Costs of day-today servicing are primarily the costs of labour and consumables, and may include the cost of small parts. The purpose of these expenditures is often described as for the ‘repairs and maintenance’ of the item of property, plant and equipment."

The AER does not consider that Envestra will derive a future economic benefit from its vegetation management program. Additionally, in accordance with paragraph 12 of AASB 116, the AER considers that vegetation management represents day-to-day servicing of the pipeline and should not be capitalised. Accordingly the AER does not consider this expenditure accords with r. 69 and r. 79 of the NGR, because it is not capex.

As the AER considers this to be opex, the AER has assessed whether a step change to allow for this proposed opex is required. This is discussed in Attachment 6 of the AER's draft decision.

Projects which do not comply with the NGL and the NGR requirements

The AER considers that the following projects do not comply with the requirements of the NGL or NGR:

* Refurbishment of Dandenong - Crib Point pipeline
* Transmission pipeline valve and pig trap refurbishment
* Bushfire preparedness
* Plant and equipment
* Storm water drain survey
* Flow correctors
* City Gate Lightning and Electrical Surge protection
* Technical training modules
* National Energy Customer Framework

The AER's considerations and reasons are discussed below.

Refurbishment of Dandenong - Crib Point pipeline

Envestra submitted that Dandenong to Crib Point Pipeline was constructed in 1966 to carry refinery gas from the BP Crib Point refinery to Dandenong.[[197]](#footnote-197) It was subsequently converted to carry natural gas from Dandenong to Crib Point. In order to establish its baseline condition, review its design life, and to maintain the ongoing integrity of the 39 km Dandenong to Crib Point Pipeline, Envestra proposed to carry out:[[198]](#footnote-198)

* Pipeline alterations to enable inline inspection by intelligent pigging
* Intelligent pigging of the pipeline
* Pipeline refurbishment works
* Clearing of easement vegetation
* Upgrade of Cathodic Protection (CP) system.

The AER accepts that it is prudent and efficient to refurbish the Crib Point pipeline. The AER has examined the forecast capex proposed by Envestra and generally considers the proposed expenditure is prudent and efficient.

However, the AER considers that Envestra has considerable resources and expertise available to it and that Envestra does not need to procure all resources required for this project externally. Accordingly, the AER considers that the forecast costs do not take into account Envestra's existing resources and that where Envestra could use existing resources, the AER does not consider expenditure on additional resources complies with r. 79(1) of the NGR and is not prudent or efficient. Accordingly, the AER has reduced the allowed capex to reflect the aspect of the project which it considers could be undertaken by Envestra's existing resources.

The AER's considerations are discussed further in confidential appendix A of the AER's draft decision.

Transmission pipeline valve and pig trap refurbishment

Envestra stated that the condition of a number isolation valves located in underground vaults has deteriorated to the extent that a programme of in situ grit blasting and painting is required to ensure the life of these assets is maximised.[[199]](#footnote-199)

The AER has not been presented evidence that all valves need major refurbishment in the 2013–17 access arrangement period. The AER considers that these valves would have been installed at various times and locations and would have varied risk factors for corrosion. Without evidence to the contrary, the AER considers it unlikely that all valves will need to be refurbished in the 2013–17 access arrangement period. Accordingly, the AER does not consider the forecast complies with r. 74(2)(a) of the NGR as it has not been arrived at on a reasonable basis. Further, the AER considers that a prudent service provider would assess each valve as part of its periodic maintenance and would refurbish individual valves that require it when a need arises. However, the AER does not consider a prudent and efficient distributor would replace all transmission valves over the 2013–17 access arrangement period, without having regard to the condition of each valve.

Additionally, the AER does not consider expenditure replacing all transmission valves complies with r. 79(2)(c)(i), r. 79(2)(c)(ii) and r. 79(2)(c)(iii) of the NGR. The AER does not consider this expenditure complies with r. 79(2)(c)(i) of the NGR as Envestra has not demonstrated replacing all transmission valves is necessary to maintain the safety of Envestra's services. The AER does not consider this expenditure complies with r. 79(2)(c)(ii) of the NGR as Envestra has not demonstrated removing all transmission valves is necessary to maintain the integrity of Envestra's services. Further, the AER does not consider this expenditure complies with r. 79(2)(c)(iii) of the NGR as does not have a clear regulatory obligation to undertake this expenditure.

The AER's considerations are discussed further in confidential appendix A of the AER's draft decision.

Bushfire preparedness

Envestra proposed to fit each gas service upstand in the identified bushfire risk areas with a Thermal Safety Device (TSD).[[200]](#footnote-200) A TSD is a passive thermal device for protection of combustible gas pipes and fittings in extreme heat situations such as bushfires.[[201]](#footnote-201)

The AER notes that the Victorian Bushfire Royal Commission presented its report to the Victorian Government in July 2012. The Royal Commission presented 67 recommendations.[[202]](#footnote-202) The AER notes that there were eight recommendations specifically related to electricity transmission and distribution businesses, however there were no specific recommendations related to gas distribution businesses or the fitting of thermal safety devices to gas services in bushfire risk areas. The AER also notes that there is no retrospective legal obligation or directive requiring Envestra to undertake this work.

Additionally, the AER sought advice from the Victorian Building Commission regarding the requirement to fit bushfire thermal safety device under AS 3959 Construction of Buildings in Bushfire Prone Areas. It advised that there was no requirement to fit a bushfire thermal safety device to new premises under AS 3959.

The AER does not consider that Envestra has adequately demonstrated the need to retrofit these devices to all gas services in bushfire prone areas. In reaching this conclusion the AER considered the absence of specific legislative requirements to either install thermal safety devices in new installations or to retro fit to existing installations and the absence of specific recommendations from the Victorian Bushfire Royal Commission. Further the AER has no evidence retrofitting these thermal safety devices reflects accepted good industry practice. The AER is currently unaware of other gas distribution businesses retro fitting these devices. Accordingly the AER does not consider this expenditure complies with r. 79(1) of the NGR.

Additionally, the AER does not consider this expenditure complies with r. 79(2)(i), r. 79(2)(ii) and r. 79(2)(iii) of the NGR as submitted by Envestra. The AER does not consider this expenditure complies with r. 79(2)(i) of the NGR as Envestra has not demonstrated it is necessary to maintain or improve the safety of Envestra's services. The AER does not consider this expenditure complies with r. 79(2)(ii) of the NGR as it is not required to maintain the integrity of Envestra's services. The AER does not consider this expenditure complies with r. 79(2)(iii) of the NGR as Envestra does not have a regulatory obligation to undertake this expenditure.

The AER's considerations are discussed further in confidential appendix A.

Plant and equipment

Envestra proposed that capex is required annually for the expected costs of replacement of essential tools, plant, equipment and other similar non-reticulation items.[[203]](#footnote-203) Envestra stated that the forecast expenditure is based on historical spend and specific requirements for items such as pipe locators, polyethylene pipe tapping equipment, bag tube equipment, temporary regulator sets, leak detectors, pressure data loggers, etc.[[204]](#footnote-204)

The AER does not approve expenditure on some specific components of this proposed expenditure. The AER did not approve this expenditure on the basis that it is not prudent or efficient and so does not comply with r. 79(1) of the NGR. The AER's reasons for not approving this expenditure are set out in confidential appendix A of the AER's draft decision.

Flow correctors

Envestra stated that flow correctors are used on meters for all large customers in order to provide accurate metering data.[[205]](#footnote-205) The current units are at the end of their useful life and hence Envestra proposes to replace them with new flow corrector units that are compatible with current computer operating systems and have the ability to connect to portable computers via current technology interfaces.[[206]](#footnote-206)

The AER does not consider that Envestra has presented sufficient evidence for it to conclude that the proposed capex for replacing these flow meters complies with r. 79(1), r. 79(2)(c)(i), r. 79(2)(c)(ii) and r. 79(2)(c)(iii) of the NGR and would be undertaken by a prudent and efficient business. The AER's reasons for not approving this expenditure are set out in confidential appendix A of the AER's draft decision.

City Gate Lightning and Electrical Surge protection

Envestra proposed that there are 55 city gate sites in the network that require design and installation of electrical surge protection to be compliant with the requirements of AS 4835 Electrical Hazards on metallic pipelines and AS1768 lightning protection. The project involves each site being reviewed and the appropriate protection installed.[[207]](#footnote-207)

The AER does not approve this expenditure on the basis that it was not prudent or efficient and so does not comply with r. 79(1) of the NGR. The AER's reasons for not approving this expenditure are set out in confidential appendix A of the AER's draft decision.

National Energy Customer Framework

Envestra stated that the business will incur additional opex and capex as a result of the introduction of NECF.[[208]](#footnote-208) Envestra stated that the NECF requires a greater interface between distributors and customers through formal contractual relationships and creates new/different obligations between distributors and retailers.[[209]](#footnote-209) Envestra proposed that to meet its obligations and ensure compliance Envestra requires additional resources to manage and co-ordinating the business changes and workflows that the NECF imposes.[[210]](#footnote-210)

As discussed in Attachment 6 of the AER's draft decision, the Victorian Government announced on 13 June 2012 that it would delay the introduction of the NECF in Victoria. The Victorian Government also announced it would explore opportunities to align state retail and consumer protection arrangements with the national framework where it does not result in lower standards. As such, the AER does not consider that this expenditure complies with r. 79(2) of the NGR as it is not necessary to comply with a regulatory obligation or requirement.

At this stage it is uncertain when or in what form the NECF will commence in Victoria. Accordingly, the AER considers that NECF related expenditure can best be assessed as a passthrough application once the relevant legislation is passed in Victoria. The AER considers it appropriate to include a NECF specific pass through in Envestra's access arrangement. As discussed in Attachment 6 of the AER's draft decision, this NECF specific pass through is not subject to a materiality clause.

Storm water drain survey

Envestra indicated that it has experienced a number of hazardous incidents arising from damage to gas pipes from the drain clearing equipment.[[211]](#footnote-211) To minimise the risk of further incidents, Envestra proposed to intordue a training program in conjunction with targeted internal inspections of drains and sewers using closed circuit TV technology.[[212]](#footnote-212)

As discussed in Attachment 6 of the AER's draft decision, the AER has not approved the opex component of this project as the AER considers that if the risks associated with gas pipes installed in drains are material, a prudent service provider 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. For the same reason, the AER does not approve the capex component as it does not comply with r. 79(1) of the NGR.

Additionally, the AER does not consider this expenditure complies with r. 79(2)(i), r. 79(2)(ii) and r. 79(2)(iii) of the NGR as submitted by Envestra. The AER does not consider this expenditure complies with r. 79(2)(i) of the NGR as Envestra has not demonstrated it is necessary to maintain or improve the safety of Envestra's services. The AER does not consider this expenditure complies with r. 79(2)(ii) of the NGR, as Envestra has not demonstrated it is necessary to maintain the integrity of Envestra's services. The AER also consider this expenditure does not comply with r. 79(2)(iii) of the NGR as Envestra does not have a regulatory obligation to undertake this expenditure.

Network Monitoring and Control

Envestra proposed to establish a 24 hour x 7 day (24x7) monitoring and controlling capability to provide an immediate response capability to any alarms that are raised and to arrange the necessary action to remedy the issue, particularly outside of normal business hours.[[213]](#footnote-213)

As discussed in Attachment 6 of the AER's draft decisionthe AER has not approved the opex component of this project on the basis that it does not reflect the actions of a prudent service provider acting efficiently in accordance with accepted good industry practice to achieve the lowest sustainable cost of delivering pipeline services.

Likewise, the AER does not consider the capital expenditure complies with r. 79(1) of the NGR. The AER is not satisfied that the means by which the supervising officer is currently informed about any SCADA pressure alarms is inadequate. In addition, the AER does not consider that employing another contractor to notify the supervising officer of SCADA pressure alarms would materially improve the quality, safety and reliability of its response in an emergency. Accordingly, the AER does not consider that this expenditure complies with r. 79(2)(i) and (ii) of the NGR as it is not necessary to maintain the safety or integrity of services.

Technical training modules

Envestra proposed the development of interactive online computer based training packages and e-courses to enhance learning and skill development.[[214]](#footnote-214) The project will develop training solutions through interactive online computer based training, and e-courses that use 3D simulations to provide enhanced operator training.[[215]](#footnote-215)

As discussed in Attachment 6 of the AER's draft decision, the AER does not approved the opex component of this project on the basis that Envestra would only undertake this project if it received commensurate productivity improvements.

Similarly, the AER does not consider the capex component of this project complies with r. 79(1) of the NGR as Envestra has not demonstrated that expanding its training program would be undertaken by a prudent and efficient service provider acting in accordance with accepted good industry practice. The AER considers that Envestra's current training regime must be sufficient to ensure that all staff have at least proper industry accreditation for the work they undertake and relevant safety standards are met. As such the AER considers that Envestra’s current level of training is sufficient to ensure compliance with r. 79(2)(c)(i), r. 79(2)(c)(ii) and r. 79(2)(c)(iii) of the NGR.

Accordingly, additional capex is not necessary to meet r. 79(2)(c)(i), r. 79(2)(c)(ii) and r. 79(2)(c)(iii) of the NGR. The AER notes that this proposed expenditure could also be justified under r. 79(2)(b) of the NGR, however, Envestra has stated that there is no opex/capex trade off for this project[[216]](#footnote-216) and that no substantial productivity savings are envisaged.[[217]](#footnote-217) Accordingly, it does not appear to the AER that the overall economic value is positive and so this does not comply with r. 79(2)(b) of the NGR.

Extensions

Extension capex is directed at expanding the distribution network beyond its current boundaries. This allows distributors to expand into new markets and provides an opportunity to grow the distributor's customer base.

Envestra proposed a capex allowance for a number of extensions to the gas network which Envestra may undertake with either the Victorian Government or private developers in the 2013–17 access arrangement period. Envestra considers the details of agreements or negotiations with these parties to be commercially sensitive and as such the AER's consideration of these proposed extensions is considered in detail in confidential appendix A.

The AER does not approve this expenditure on the basis that it does not comply with r. 74(2), r. 79(1) and r. 79(2) of the NGR.

* + - * 1. Envestra's proposed and approved extension capital expenditure ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra proposed | 10.2 | – | 7.6 | 1.3 | 0.2 | 19.3 |
| AER approved | – | – | – | – | – | – |
| Difference | -10.2 | – | –7.6 | –1.3 | –0.2 | –19.3 |

Source: AER analysis, Envestra.

Overheads

Overheads are costs which are not directly attributable to the distribution businesses output but are necessary to support the businesses operations. Examples of overhead costs include network planning, procurement and human resources.

For its Victorian network Envestra proposed using a general overhead rate of 20 per cent, based on the average of the actual overheads incurred over the past four years.[[218]](#footnote-218) Envestra proposed a lower overhead rate of 10 per cent for the mains replacement and augmentation program, stating that the lower rate reflects the expanded capex program and the fixed versus variable nature of overheads.[[219]](#footnote-219)

For its Albury network Envestra proposed using a general overhead rate of 20 per cent, based on the average of the actual overheads incurred over the past four years.[[220]](#footnote-220)

The AER accepts that overheads are incurred in carrying on a distribution business and so justifiable under NGR r. 79(2)(c)(iv).

However, the AER considers that a significant proportion of overhead costs are fixed rather than variable. Therefore, the growth in overhead costs should be declining over time in real terms. For this reason, the AER considers that the forecast overhead costs proposed by Envestra for both the Victorian and Albury networks are too high and therefore not consistent with the NGR.

The AER considers that there are likely to be changes to fixed costs where the scale of the business changes significantly. However, the AER does not consider, on the basis of the projected capital base approved by the AER that the scale of Envestra's business is going to change such that a step up in the fixed proportion of overheads is warranted.

The AER considers that an appropriate alternative is to:

* Derive the base overhead cost by taking the 2008–11 average overhead expenditure, on the basis that actual overhead costs are revealed to be efficient
* Reflect changes in variable overhead costs by making a scaled adjustment of overheads in relation to the change in the net total capex across years. This consists of an annual adjustment derived by:
* Calculating the change in the projected net direct capex between the year concerned and the former year
* Deriving the proportional change in overheads relative to the change in the projected net total capex by multiplying the net direct capex by the average of the 2008–11 overheads share of total net capex divided by the average of the 2008–11 direct cost share of total net capex
* Multiplying the derived change in overheads by the estimated proportion of variable costs.

Envestra provided a split of overhead expenditure by the type of overhead, the share of total overhead expenditure by type, and the proportion of expenditure which is fixed or variable by type. The AER has a number of concerns regarding the share of total overhead expenditure allocated to procurement and fleet, operations management and administration, planning and system design and support[[221]](#footnote-221). The amount allocated to procurement and fleet is high given that a rolling procurement program is undertaken and that most of the capital program is outsourced to APA to manage (who are paid a separate network management fee). The other amounts are low, given that most of the overhead expenditure is expected to be directed towards high level planning and operation management.

In forming a decision on the reasonableness of the apportionment of the overhead expenditure by type the AER considered Envestra's submission to the AER for the access arrangement proposals for the South Australian and Queensland gas networks. The overhead apportionments supplied were more in line with the AER's expectations. The AER does not consider that there should be significant differences between the overhead allocations by gas network given all the networks are overseen from the single head office in Adelaide and that the majority of capital expenditure is outsourced to APA who manage the gas networks nationally. The AER therefore considers that the application of the average of the apportionment of overheads in the Envestra SA and Qld decisions is a reasonable basis for the forecast and will result in the best estimate as required by r.74(2) of the NGR.

This approach results in a total overhead cost of $44.9 million ($2011) compared to the total overhead cost of $95.4 million ($2011) proposed by Envestra for the Victorian network, a reduction of 53 per cent.

This approach results in a total overhead cost of $1.0 million ($2011) compared to the total overhead cost of $1.3 ($2011) proposed by Envestra for the Albury network, a reduction of 21 per cent.

Government and customer contributions

Envestra proposed customer contributions for residential connections of $9.5 million ($2011) per year for its Victorian network.

The AER has made reductions to residential customer numbers and the proposed unit rates in the assessment of new customer connections which has decreased residential customer connections expenditure by 31 per cent. The residential customer contributions are therefore scaled back accordingly to $6.5 million ($2011) per year.Envestra did not propose any government or customer contributions for its Albury network.

* + 1. Adjustments to labour and material escalation

The AER has revised down the labour and material escalation that was proposed by Envestra for its Victorian (see table 3.25) and Albury networks (see table 3.26). Internal and external labour escalation has been revised down. Materials escalation has been revised to nil real. This is discussed in Appendix D of the AER's draft decision.

* + - * 1. Victorian network - AER approved capital expenditure(a) by driver category over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 26.7 | 17.2 | 12.8 | 8.5 | 6.1 |
| Residential connections | 19.5 | 18.8 | 18.5 | 17.8 | 17.5 |
| Commercial/industrial connections | 3.6 | 3.4 | 3.1 | 2.0 | 2.2 |
| Residential meter replacement | 2.4 | 4.8 | 3.2 | 7.8 | 2.5 |
| Commercial/industrial meter replacement | 1.0 | 1.2 | 1.7 | 1.5 | 1.4 |
| Augmentation | 4.1 | 7.7 | 2.0 | 11.1 | 1.7 |
| IT | 3.7 | 7.4 | 3.0 | 0.2 | 0.7 |
| SCADA | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Other | 3.8 | 5.1 | 4.3 | 2.5 | 2.2 |
| Gas Extensions | – | – | – | – | – |
| Overheads | 8.3 | 9.8 | 8.2 | 10.0 | 8.2 |
| GROSS TOTAL CAPITAL EXPENDITURE | 73.3 | 75.7 | 57.0 | 61.6 | 42.6 |
| Customer contributions | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |
| Government contributions | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 72.0 | 74.4 | 55.7 | 60.3 | 41.3 |

Source: AER analysis.

Notes: (a) Including AER material and labour escalation adjustments, excluding network management fee.

* + - * 1. Albury network - AER approved capital expenditure(a) by driver category over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Residential connections | 0.43 | 0.50 | 0.52 | 0.52 | 0.53 |
| Commercial/industrial connections | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Residential meter replacement | 0.07 | 0.06 | 0.09 | 0.05 | 0.04 |
| Commercial/industrial meter replacement | 0.03 | 0.02 | 0.03 | 0.02 | 0.02 |
| Augmentation | 0.01 | – | – | – | 0.43 |
| IT | 0.13 | 0.26 | 0.10 | 0.00 | 0.02 |
| SCADA | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Other | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Gas Extensions | – | – | – | – | – |
| Overheads | 0.17 | 0.22 | 0.20 | 0.19 | 0.23 |
| GROSS TOTAL CAPITAL EXPENDITURE | 0.88 | 1.12 | 0.99 | 0.85 | 1.34 |
| Customer contributions | – | – | – | – | – |
| Government contributions | – | – | – | – | – |
| NET TOTAL CAPITAL EXPENDITURE | 0.88 | 1.12 | 0.99 | 0.85 | 1.34 |

Source: AER analysis.

Notes: (a) Including AER material and labour escalation adjustments, excluding network management fee.

* + 1. Adjustments for Envestra's proposed network management fee

The AER has accepted Envestra's proposed network management fee (NMF) calculation method. This is discussed in Appendix E of the AER's draft decision. This leads to the following further revisions to Envestra's proposed capital expenditure (see table 3.3 and table 3.5 for year on year splits and table 3.27 and table 3.28 for the 2013–17 access arrangement period aggregates).

* + - * 1. Victorian network - comparison of AER approved and Envestra capital expenditure over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | Envestra proposed | AER approved excluding labour and material escalation and NMF adjustments | AER approved including AER labour and material escalation adjustments | AER approved including AER labour and material escalation adjustments and NMF | Variance between Envestra and AER approved including labour and material escalation and NMF adjustments |
| Mains replacement | 328.6 | 78.9 | 71.4 | 73.9 | -77.5% |
| Residential connections | 141.7 | 103.5 | 92.0 | 95.6 | -32.5% |
| Commercial/industrial connections | 25.6 | 16.1 | 14.3 | 14.9 | -41.8% |
| Residential meter replacement | 28.1 | 23.7 | 20.8 | 21.6 | -23.2% |
| Commercial/industrial meter replacement | 7.7 | 7.8 | 6.8 | 7.1 | -7.9% |
| Augmentation | 52.0 | 29.9 | 26.7 | 27.6 | -46.8% |
| IT | 19.3 | 16.2 | 14.9 | 15.5 | -19.9% |
| SCADA | 1.1 | 1.1 | 1.0 | 1.0 | -8.7% |
| Other | 53.2 | 20.4 | 17.8 | 18.5 | -65.2% |
| Gas Extensions | 19.7 | – | – | – | -100.0% |
| Overheads | 97.48 | 44.86 | 44.51 | 46.25 | -52.6% |
| GROSS TOTAL CAPITAL EXPENDITURE | 774.4 | 332.3 | 310.2 | 321.9 | -58.4% |
| Customer contributions | 9.5 | 6.5 | 6.5 | 6.5 | -31.1% |
| Government contributions | – | – | – | – | 0.0% |
| NET TOTAL CAPITAL EXPENDITURE | 764.9 | 325.8 | 303.6 | 315.4 | -58.8% |

Source: AER analysis.

Notes: (a) including labour and material escalation adjustment and NMF adjustment.

* + - * 1. Albury network - comparison of AER approved(a) and Envestra capital expenditure over the 2013–17 access arrangement period ($million, 2011)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Category | | Envestra proposed | | AER approved excluding labour and material escalation and NMF adjustments | | AER approved including labour and material escalation | | AER approved including AER labour and material escalation adjustments and NMF | | AER approved including AER labour and material escalation adjustment and NMF adjustments |
| Mains replacement | 0.04 | | 0.04 | | 0.04 | | 0.04 | | -8.1% | |
| Residential connections | 3.88 | | 2.80 | | 2.51 | | 2.71 | | -30.1% | |
| Commercial/industrial connections | 0.19 | | 0.13 | | 0.12 | | 0.13 | | -32.3% | |
| Residential meter replacement | 0.38 | | 0.36 | | 0.32 | | 0.35 | | -8.7% | |
| Commercial/industrial meter replacement | 0.15 | | 0.14 | | 0.12 | | 0.13 | | -8.7% | |
| Augmentation | 0.53 | | 0.51 | | 0.44 | | 0.47 | | -12.4% | |
| IT | 0.70 | | 0.55 | | 0.52 | | 0.56 | | -19.3% | |
| SCADA | 0.11 | | 0.10 | | 0.09 | | 0.10 | | -9.0% | |
| Other | 0.87 | | 0.01 | | 0.01 | | 0.01 | | -98.8% | |
| Gas Extensions | – | | – | | – | | – | | 0.0% | |
| Overheads | 1.37 | | 1.03 | | 1.01 | | 1.10 | | -20.1% | |
| GROSS TOTAL CAPITAL EXPENDITURE | 8.23 | | 5.66 | | 5.19 | | 5.60 | | -32.0% | |
| Customer contributions | – | | – | | – | | – | | 0.0% | |
| Government contributions | – | | – | | – | | – | | 0.0% | |
| NET TOTAL CAPITAL EXPENDITURE | 8.23 | | 5.66 | | 5.19 | | 5.60 | | -32.0% | |

Source: AER analysis.

Notes: (a) Including labour and material escalation adjustment and NMF adjustment.

* + 1. Equity raising costs

Equity raising costs are incurred when service providers are required to raise equity. Equity raising costs would be incurred by a prudent service provider acting efficiently. 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 per cent gearing level). The AER's equity raising cost benchmark allowance allows for costs in the form of dividend reinvestment plan costs and seasoned equity offerings.

To determine benchmark equity raising costs the AER relies on a method that was initially discussed in a 2007 Allen Consulting Group (ACG) report.[[222]](#footnote-222) This method was amended in the AER's decisions for the ACT, NSW and Tasmanian electricity service providers.[[223]](#footnote-223) The AER has applied this method in subsequent decisions for other electricity and gas service providers.[[224]](#footnote-224) This approach has recently been further refined, as discussed and applied in the Powerlink final decision and in this draft decision.[[225]](#footnote-225)

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 involves identifying a hierarchy of three methods for equity raising, with differing equity raising costs and availability for each method. 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.[[226]](#footnote-226) Specifically, the AER's application of this approach involves

* First, service providers use retained earnings as a source of equity:
* Annual retained earnings are calculated as the residual of internal cash flows less dividends to shareholders. Retained earnings for each year are converted to real dollar terms and totalled to determine retained earnings for the entire access arrangement period.
* Dividends are set to be just sufficient to match the distribution of imputation credits consistent with the AER's gamma assumptions. For gas service providers, the AER adopts a payout ratio of 70 per cent.
* The assumed debt component of forecast capex is equal to 60 per cent of the annual change in the RAB.
* The equity component of forecast capex for each year is calculated as the residual of the total forecast capex and the assumed debt component. Similar to retained earnings, the equity component of forecast capex for each year is converted to real dollar terms and totalled to determine the equity component for the entire access arrangement period.
* Second, service providers use dividends reinvestment plans:
* The amount of equity raised in this manner is capped. It is assumed that a maximum of 30 per cent of dividends paid are returned to the service provider via a dividend reinvestment plan. The total of reinvested dividends required for the access arrangement period, therefore, is determined as the minimum of the sum of the real reinvested dividends for each year and the shortfall in retained earnings required to fund the equity component of forecast capex.
* Third, service providers use seasoned equity offerings encompassing both rights issues and placements

The requirement for external equity funding via seasoned equity offerings is the shortfall, if any, in retained earnings required to fund the equity component of forecast capex and the total of reinvested dividends.

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. These figures are based on the AER's empirical review in assessing the benchmark costs for raising equity finance:

* 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.

The AER considers that these unit costs represent the efficient costs required to raise equity in current market conditions. This is because they have been suitably estimated by the AER[[227]](#footnote-227) and ACG,[[228]](#footnote-228) and subsequently reviewed.[[229]](#footnote-229)

The total benchmark equity raising cost is then amortised over the weighted average standard asset life of Envestra's RAB to provide the equity raising cost allowance associated with forecast capex in the 2013–17 access arrangement.

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 has applied the updated ACG equity raising method to estimate the indicative costs and total allowance for Envestra, shown in table 3.30 and table 3.32. The AER will update this analysis again for the final decision based on the final capex allowance to be determined at that time.

Envestra proposed equity raising costs of $2.4 million ($nominal) over the access arrangement period for its Victorian network .[[230]](#footnote-230)

Envestra proposed equity raising costs of $0.01 million ($nominal) over the access arrangement period for its Albury network.[[231]](#footnote-231)

Envestra determined the costs using the AER’s calculation method based on the ACG report. The proposal, however, did not incorporate the adjustments that the AER made to the equity raising cost method in the April 2012 Powerlink final decision (the final decision was not available at the time Envestra made its proposals).

After considering the equity raising costs proposed by Powerlink for its 2012–17 access arrangement, the AER modified its estimation method so that it accommodated the netting of future equity raising surpluses against prior deficits. The AER made this adjustment because it is reasonable to assess equity raising costs over the entire access arrangement period. This reflects management control over the timing of equity offerings (if required). To achieve this, the AER converted retained cash flows, the equity portion of the capex funding requirements and reinvested dividends from nominal dollar term estimates to real dollar term estimates. The AER then determined the subsequent requirement for equity raising costs across the entire access arrangement period.[[232]](#footnote-232) This approach removes the need for implicit assumptions regarding the timing of equity raisings. It also ensures that the allowance for equity raising costs for the access arrangement period reflects the external equity that is forecast to be required.[[233]](#footnote-233) The AER considers this updated method more appropriate and provides a better benchmark for equity raising costs. The AER will therefore require Envestra to incorporate this adjustment.

Envestra used a dividend payout ratio of 100 per cent to determine its equity raising costs.[[234]](#footnote-234) This is not consistent with the imputation credit payout ratio of 70 per cent that is used to determine gamma. The cashflows should be consistent with the PTRM inputs and outputs and so the AER considers that 70 per cent for the imputation credit payout ratio is appropriate.

Additionally, Envestra made an error when converting nominal equity raising costs to real equity raising costs. Envestra did not discount the nominal costs back to the appropriate year.[[235]](#footnote-235) The AER has corrected this for the draft decision.

Based on the AER’s method, the cash flow analysis calculated in the PTRM for Envestra's benchmark equity raising cost is shown in table 3.29 to table 3.32. Table 3.29 and table 3.31 set out (in nominal terms) the derivation of the required new equity for the 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 and . These tables demonstrate that Envestra does not require an equity raising cost allowance based on the level of forecast capex for its Victorian network. Envestra, however, has an equity requirement of $1.56m (real 2012) resulting in an allowance of $0.02m (real 2012) for its Albury network.

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 Envestra requires no benchmark equity raising cost allowance for its Victorian network and a $0.02m (real 2012) equity raising cost allowance for its Albury network.

* + - * 1. AER’s final decision cash flow analysis for Envestra Victoria benchmark equity raising cost ($million, nominal)

|  |  |  |
| --- | --- | --- |
| Cash flow analysis | Total ($million, nominal) | Notes |
| Dividends | 45.51 | Set to distribute imputation credits assumed in the PTRM (70 per cent). |
| Dividends reinvested | 13.65 | Availability of reinvested dividends, capped at 30% dividends paid. |
| Capex funding requirement | 342.20 | Forecast capex funding requirement (including half year WACC adjustment). |
| Debt component | 159.19 | Set to equal 60% of annual change in RAB. |
| Equity component | 183.01 | Residual of capex funding requirement and debt component. |
| Retained cash flow available for reinvestment | 214.46 | Exclude dividends reinvested. |
| Equity required | -31.45 | Equals equity component less retained cash flows. |

Source: AER analysis.

* + - * 1. AER’s final decision cash flow analysis for Envestra Victoria benchmark equity raising cost ($million, 2012–13)

|  |  |  |
| --- | --- | --- |
| Cash flow analysis | Total ($million, 2012–13) | Notes |
| Equity component | 170.22 | Residual of capex funding requirement and debt component. |
| Retained cash flow available for reinvestment | 200.76 | Exclude dividends reinvested. |
| Equity required | -30.54 | Equals equity component less retained cash flows. |
| Dividends reinvested | 12.47 | 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

* + - * 1. AER’s final decision cash flow analysis for Envestra Albury benchmark equity raising cost ($million, nominal)

|  |  |  |
| --- | --- | --- |
| Cash flow analysis | Total ($million, nominal) | Notes |
| Dividends | 3.29 | Set to distribute imputation credits assumed in the PTRM (70 per cent). |
| Dividends reinvested | 0.99 | Availability of reinvested dividends, capped at 30% dividends paid. |
| Capex funding requirement | 6.15 | Forecast capex funding requirement (including half year WACC adjustment). |
| Debt component | 1.55 | Set to equal 60% of annual change in RAB. |
| Equity component | 4.60 | Residual of capex funding requirement and debt component. |
| Retained cash flow available for reinvestment | 2.87 | Exclude dividends reinvested. |
| Equity required | 1.73 | Equals equity component less retained cash flows. |

Source: AER analysis.

* + - * 1. AER’s final decision cash flow analysis for Envestra Albury benchmark equity raising cost ($million, 2012–13)

|  |  |  |
| --- | --- | --- |
| Cash flow analysis | Total ($million, 2012–13) | Notes |
| Equity component | 4.25 | Residual of capex funding requirement and debt component. |
| Retained cash flow available for reinvestment | 2.69 | Exclude dividends reinvested. |
| Equity required | 1.56 | Equals equity component less retained cash flows. |
| Dividends reinvested | 0.91 | Availability of reinvested dividends, capped at 30% dividends paid. |
| Dividend reinvestment plan required | 0.91 | Required reinvested dividends. |
| Seasoned equity offerings required | 0.65 | Required seasoned equity offerings (SEOs). |
| Cost of dividend reinvestment plan | 0.001 | Required reinvested dividends multiplied by benchmark cost. |
| Cost of seasoned equity offerings | 0.019 | Required SEOs multiplied by the benchmark cost. |
| Total equity raising costs | 0.02 | 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

* 1. Revisions

**Revision 3.1:** Make all necessary amendments to reflect the AER’s draft decision on opening capital base for the access arrangement period, as set out in table 3.1.

**Revision 3.2:** Make all necessary amendments to reflect the AER’s draft decision on opening capital base for the access arrangement period, as set out in table 3.2.

**Revision 3.3:** 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 3.3.

**Revision 3.4:** 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 3.4.

1. Rate of return

The rate of return is one of the inputs to the building block approach used by the AER to determine total revenue for each regulatory year of the access arrangement period. 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.[[236]](#footnote-236)

Envestra's return on capital building block is calculated by multiplying the rate of return with the value of Envestra's capital base. Consistent with Envestra's access arrangement proposal and previous AER gas decisions, the rate of return adopted by the AER is the nominal vanilla WACC formulation.

The AER's detailed reasons for its decision on the rate of return are provided in this attachment, with additional reasons on some matters set out in appendix B.

* 1. Draft decision

The AER does not approve Envestra's proposed (indicative) rate of return of 9.06 per cent. The AER withholds its approval because, in the AER's opinion, 7.16 per cent (subject to updating) is a preferable alternative that meets the criterion of the NGR.[[237]](#footnote-237)

Envestra's proposed rate of 9.06 per cent is based on market data from November–December 2011. The AER's draft decision rate of 7.16 per cent is based on market data from July–August 2012. Envestra's proposed rate of return method, if also applied to market data from July–August 2011, would result in a proposed rate of 8.40 per cent.

Both Envestra's proposed rate of return method, and the AER's method in this draft decision, will be updated using market data for the risk free rate and debt risk premium (DRP) updated closer to the time of the final decision. The AER's draft decision method involves updating the risk free rate used in both the cost of equity and cost of debt. Envestra's proposed method involves only updating the risk free rate used in the cost of debt.

The AER considers a 7.16 per cent rate of return (subject to updating) provides Envestra with a reasonable opportunity to recover at least the efficient costs of capital financing. Consequently, the AER expects Envestra will be able to attract funds to support the efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers.

The AER agrees with the following aspects of Envestra's proposed rate of return method:

* adopting the capital asset pricing model (CAPM) to calculate the cost of equity
* adopting the yield on 10 year Commonwealth Government Securities (CGS) as the proxy for the risk free rate
* adopting a market risk premium (MRP) of 6 per cent
* adopting an equity beta of 0.8.
* specifying the cost of debt as the debt risk premium over the risk free rate
* determining the debt risk premium by defining the benchmark bond as a 10 year Australian corporate bond with a BBB+ credit rating and measuring the benchmark bond rate using the extrapolated Bloomberg BBB rated seven year fair value curve
* extrapolating the Bloomberg BBB rated seven year fair value curve to a 10 year maturity (consistent with the definition of the benchmark bond) using paired bond analysis[[238]](#footnote-238)
* adopting a 60 per cent gearing ratio
* adopting the inflation forecasting method based on short term Reserve Bank of Australia (RBA) forecasts and the mid-point of the RBA's inflation targeting band

But the AER does not agree with the following aspect of Envestra's proposal:

* adopting a long term historical average risk free rate in the cost of equity. Rather, the AER adopts a short term averaging period sampled as close as practicably possible to the commencement of the access arrangement period, as explained in section 4.2.3.

Table 4.1 sets out the individual WACC parameters and consequent (indicative) rate of return determined by the AER.

* + - * 1. AER's draft decision on Envestra's rate of return (nominal)

|  |  |  |
| --- | --- | --- |
| Parameter | Envestra proposal | AER draft decision |
| Nominal risk free rate (cost of equity) | 5.99% | 2.98% a |
| Nominal risk free rate (cost of debt) | 3.99% a | 2.98% a |
| Equity beta | 0.8 | 0.8 |
| Market risk premium | 6% | 6% |
| Debt risk premium | 3.92% a | 3.76% a |
| Gearing level | 60% | 60% |
| Inflation forecast | 2.5% a | 2.5% a |
| Gamma | 0.25 | 0.25 |
| Nominal post-tax cost of equity | 10.80% a | 7.78% a |
| Nominal pre-tax cost of debt | 7.91% a | 6.74% a |
| Nominal vanilla WACC | 9.06% a | 7.16% a |

Source: ACCC decision; Envestra, Access arrangement proposal, March 2012 and AER analysis.

(a) Indicative only. The risk free rate, debt risk premium and inflation forecast will be updated closer to the date of the final decision.

The rate of return in this draft decision (7.16 per cent) is similar to the rate of return determined by the AER recently in the APTPPL final decision (7.31 per cent).[[239]](#footnote-239) However, the rate of return in this decision for Envestra is lower than the rate of return determined by the AER in decisions before that time. The fact that the overall rate of return in this decision is lower than in previous decisions does not of itself make it unreasonable. The cost of debt in this decision makes up 60 per cent of the overall rate of return. The AER and Envestra agree on the approach to determining the cost of debt. The cost of debt has fallen by approximately one per cent compared with AER decisions from earlier this year.[[240]](#footnote-240) Hence, the AER and Envestra agree that this reduction reflects changing conditions in the market for funds. This provides the AER with a degree of comfort that a fall in the overall rate of return, in itself, is not unreasonable.

Envestra's concerns surround the cost of equity and the extent to which the cost of equity determined by the AER in this decision is lower than that determined in previous decisions. A lower cost of equity contributes to a lower overall rate of return.

The AER acknowledges that Envestra was concerned with the impact of the lower risk free rate on its overall rate of return. The AER has carefully considered the consequences of the low CGS yields and is confident that CGS yields remain the most appropriate proxy of the risk free rate in Australia. This position is supported by advice from the Reserve Bank of Australia (RBA). The AER has also considered whether or not the MRP should be increased from that used in previous decisions. The AER remains of the view that a 6 per cent MRP is commensurate with prevailing conditions in the market for funds.

* 1. Assessment approach

In this section, the AER considers:

* The requirements of the national gas law and rules on the rate of return
* The approach to selecting a well accepted model and approach for determining the rate of return
* The approach to determination each parameter within that well accepted approach and model
* The approach to reasonableness checks on the overall rate of return
  + 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 the Tribunal's interpretation of relevant provisions of the NGR in recent decisions.

R.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

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 the rule operates as follows:

* R.87(1) of the NGR describes the objective in determining the WACC but not how to achieve the objective.
* R.87(2) of the NGR 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).
* R.87(1) of the NGR informs the selection of input parameters for the well accepted approach and well accepted financial model. Those input parameters must reflect prevailing conditions in the market for funds and the risk involved in providing reference services.

This interpretation is consistent with the Tribunal's position in two recent decisions: the ATCO (formerly WA Gas Networks) matter and the DBNGP matter.[[241]](#footnote-241) It is also consistent with the AER's approach in previous decisions.[[242]](#footnote-242) The AER thus applied this approach in making its draft decision on Envestra's rate of return.

R.87 of the NGR is a full discretion provision.[[243]](#footnote-243) This means the AER may, but is not bound to, approve Envestra'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 if 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.[[244]](#footnote-244)

If the AER does not approve Envestra's access arrangement, then the AER must formulate an access arrangement with regard to:

* the matters that the NGL and NGR require an access arrangement to include
* the service provider's access arrangement proposal
* the AER's reasons for refusing to approve that proposal.[[245]](#footnote-245)

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 many 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:

* previous AER decisions, including the AER's 2009 review of WACC parameters for electricity service providers (the WACC review[[246]](#footnote-246)) 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.[[247]](#footnote-247) Both the AER's approval or withholding of its approval of Envestra's proposed rate of return—and in the case of the latter the AER's determination of a preferable rate of return—are AER economic regulatory functions or powers. 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.[[248]](#footnote-248)

In addition, the AER must take into account the revenue and pricing principles when approving or making the parts of an access arrangement that relate to a reference tariff.[[249]](#footnote-249) The rate of return is such a part, so the AER must take into account the following[[250]](#footnote-250):

* A service provider should have a reasonable opportunity to recover at least the efficient costs that it incurs in providing reference services
* 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 its access arrangement proposal, Envestra said that rr 87(1) and 87(2) of the NGR should be read together[[251]](#footnote-251):

If the intention of the NGR is that one simply applied a well-accepted financial model and accepted the results without any further checks of whether those results reflect prevailing conditions in the market for funds and the risks involved in providing the reference services, rule 87(1) would be unnecessary.[[252]](#footnote-252)

Envestra also said that r. 87(2) is subordinate to r. 87(1) of the NGR and that the AER has applied the CAPM in a 'mechanistic' way.[[253]](#footnote-253) In determining its proposed cost of equity, Envestra considers alternative estimates of the Sharpe-Lintner CAPM from CEG, Capital Research and NERA, as well as an alternative model to the Sharpe-Lintner CAPM in the Black CAPM.[[254]](#footnote-254) To support the use of a variety of methods, Envestra points to an ASIC guideline on valuation reports and comments made by the Tribunal in Application by Telstra Corporation Limited ABN 33 051 775 556 [2010] ACompT (the Telstra matter).[[255]](#footnote-255)

The AER does not agree with Envestra's submissions about the construction and operation of r. 87. Rr. 87(1) and 87(2) of the NGR operate together in the manner described by the AER above. That interpretation is consistent with the Tribunal's position in the ATCO matter and the DBNGP matter. The AER notes Envestra's access arrangement proposal was made before the Tribunal released those decisions.

In any case, the AER does not consider the approach taken in this decision to be 'mechanistic'. The AER has taken into account an extensive amount of information and applied careful judgment in estimating each rate of return parameter, and carefully considered the economic interdependencies between parameters.

The AER has not used alternative cost of equity models to directly determine the cost of equity. However, the AER has given consideration to these models, and other relevant information, in making this decision:

* Alternative MRP estimates are considered in section 4.3.3 and appendix B.
* Alternative estimates of the risk free rate are considered in appendix B.
* The interaction between the risk free rate and the MRP is considered in section 4.3.4.
* The Black CAPM is considered in appendix B.
* Indicators of the appropriateness of the overall WACC are considered in appendix B.

Based on these considerations, the AER considers the rate of return method determined in this decision is preferable to Envestra's proposed method, and is commensurate with prevailing conditions in the market for funds and the risks involved with providing reference services.

* + 1. Selection of well accepted approach and model

In its access arrangement proposal, Envestra proposed the WACC approach, weighted 40 per cent to equity and 60 per cent to debt. Envestra also proposed to calculate:

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

The AER approves both Envestra's approach to determining the rate of return and models to determine the cost of equity and cost of debt. The weighted average cost of capital is a well accepted approach to determining the rate of return. The models proposed by Envestra to determine the cost of equity and debt are also well accepted.[[256]](#footnote-256)

* + 1. Approach to the determination of specific parameters

Risk free rate

The risk free rate measures the return that an investor would expect from an asset with no default risk. As with other WACC parameters, the risk free rate should reflect prevailing conditions in the market for funds. It cannot be directly observed, but bonds issued by the Australian Government (Commonwealth Government Securities (CGS)) are its most appropriate proxy. This is because the risk of the government defaulting on these bonds is low. CGS yields are readily observable.

The AER accepts Envestra's proposed approach for calculating the risk free rate for the cost of debt but not the cost of equity. (Envestra provided the AER with an averaging period on a confidential basis.) The approach for the cost of debt involves observing the yield on 10 year CGS over a short period (10–40 days) commencing as close as possible to the beginning of the regulatory period. This approach produces a risk free rate that reflects prevailing conditions in the market for funds.[[257]](#footnote-257) The AER applied this approach to determining the risk free rate when estimating both the cost of equity and the cost of debt. It articulated this approach in the WACC review in 2009, and the approach is consistent with other recent decisions by the AER.

Market risk premium

The AER accepts the use of the yield on 10 year CGS as the proxy for the risk free rate. To maintain consistency within the CAPM, the AER estimated a 10 year forward looking MRP.

The MRP is the expected return over the risk free rate that investors require to invest in a well diversified portfolio of risky assets. It represents the risk premium that investors who invest in such a portfolio can expect to earn for bearing only non-diversifiable (systematic) risk. The MRP is common to all assets in the economy and not specific to an individual asset or business.

While the MRP cannot be directly observed, methods are available to infer investor expectations at any point in time. These methods include examining historical excess returns, conducting surveys of the MRP used by practitioners and academics, employing the dividend growth model (DGM) and using other financial market indicators such as an implied volatility approach. The National Gas Law and Rules (NGL and NGR) do not specify a particular method for measuring the MRP.

Academic literature and reports by regulated businesses[[258]](#footnote-258) recognise the evidence available for estimating the MRP is imprecise and subject to interpretation. Experts do not agree on either the appropriate method or the assumption for different methods. In addition, each method has strengths and limitations, and may give conflicting outcomes.[[259]](#footnote-259) For these reasons, judgment must be exercised in determining an MRP value for determining an appropriate rate of return. The Australian Competition Tribunal recognised this problem in the recent Envestra decision.[[260]](#footnote-260)

The AER considers the MRP should be based on considerations relevant to the MRP. Maintaining the integrity of each parameter promotes robustness in the parameter's estimation. While that integrity is important, the AER also recognises the economic interdependencies between parameters when they exist.

The AER accepts Envestra's proposed 'long term' MRP of 6 per cent. It does not accept the proposed 'current' MRP estimate of 8.3 per cent. [[261]](#footnote-261) Consistent with previous decisions, the AER determined an MRP of 6 per cent is appropriate by assessing a range of evidence. It interpreted the information available, accounting for the advantages and limitations of all evidence. In the case of complex and conflicting evidence, the AER exercised regulatory judgment.

Equity beta

The AER approach for this draft decision begins with conceptual analysis of equity beta, then proceeds with rigorous empirical analysis using a comparator set of listed firms that best match the benchmark. Finally, the equity beta estimate is cross checked against other estimates derived from less relevant data, such as overseas firms or other regulated sectors.

The conceptual analysis undertaken by the AER frames the later empirical analysis. In the AER approach the empirical analysis is the primary determinant of equity beta, even though it is not the first step. Further, although the cross checks use empirical evidence, this is given less weight because of the reduced relevance of these firms (overseas or in other industry sectors) to the characteristics of the benchmark firm.

In evaluating both the conceptual and empirical evidence, the AER sought advice from finance experts Professor McKenzie and Associate Professor Partington of the University of Sydney.[[262]](#footnote-262)

In arriving at the estimate of the equity beta, the AER has regard to the level of precision in the available empirical evidence, consistent with the AER’s previous regulatory practice.

Debt risk premium

The DRP is the margin above the nominal risk free rate that a debt holder would require in order for it to invest in a benchmark efficient service provider. When combined with the nominal risk free rate, the DRP represents the return on debt and is an input for calculating the WACC.

The AER’s assessment approach for this draft decision is consistent with that adopted in the AER's recent final decision for the Roma to Brisbane Pipeline.[[263]](#footnote-263) That is, the AER has estimated the DRP using:

* an appropriate benchmark
* a method used to estimate the DRP that conforms to these benchmark parameters.

Benchmark

The AER adopts a 10 year Australian corporate bond with a BBB+ credit rating as the benchmark for estimating the DRP. This benchmark assumption was also adopted by Envestra.

Method used to estimate the DRP

For this draft decision, the AER uses the following method to estimate the 10 year DRP:

* the Bloomberg BBB rated fair value curve to estimate the (base) seven year DRP
* the average annual increment observed across bonds of differing maturities issued by the same company, to extrapolate the seven year DRP estimate to 10 years.

AER observations on recent Tribunal decisions and bond issuances

The AER has previously noted analysis demonstrating the extrapolated Bloomberg BBB rated fair value curve resulted in a DRP higher than that indicated from market evidence.[[264]](#footnote-264) In particular, this evidence included observed bond data and independent market commentary.

Further, the AER has previously proposed a means of estimating the DRP which made use of market evidence on Australian bond yields.[[265]](#footnote-265) Prior to the implementation of this approach in a final decision, however, the Tribunal released its decision for the Envestra and APT Allgas reviews.[[266]](#footnote-266) Notably, the Tribunal stated that the Bloomberg fair value curve should be used to determine the DRP unless there are sound reasons to depart from that practice. Moreover, any alternative method should be determined in consultation with the relevant regulated entities and other interested parties.[[267]](#footnote-267) In light of these Tribunal statements, the AER relied on the extrapolated Bloomberg fair value curve for estimating the DRP. The AER was particularly mindful of the Tribunal’s recommendation that a public consultation process be completed before an alternative methodology was adopted.

Subsequently, the Tribunal has made two decisions that also dealt with the determination of the DRP.[[268]](#footnote-268) These decisions upheld the use of the ‘bond-yield approach’ adopted by the ERA.[[269]](#footnote-269) That is, an alternative bond yield approach to that used by the AER in which the DRP was estimated by averaging observed bond yields that met certain criteria.[[270]](#footnote-270) The Tribunal did, however, direct the ERA to amend the simple averaging process used to aggregate these bond yields.[[271]](#footnote-271) The Tribunal also provided guidance on the relevance of various criteria and the use of a more complex weighted average.[[272]](#footnote-272) Such a weighted average was implemented by the ERA on remittal.[[273]](#footnote-273)

If the bond-yield approach (with the weighting method adopted in the ERA’s revised decision) was applied to Envestra, the DRP would be 2.72 per cent.[[274]](#footnote-274) This is below the DRP of 3.82 per cent derived using the extrapolated Bloomberg fair value curve (as per Envestra’s proposed method).[[275]](#footnote-275)

Additionally, the AER has observed recent bond issues from firms which have similar characteristics to the benchmark firm. These are shown in , below:

* + - * 1. Observed recent bond issuances—network service providers

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Issuer | Date of issue | Amount ($million) | Type | Term (years) | Yield at issue (per cent) | DRP (per cent) |
| SPI Electricity and Gas | 21 JUN 2012 | 205 | Fixed | 10 | 5.95 | 2.96 |
| Powercor Australia | 19 APR 2012 | 200 | Fixed | 5 | 5.80 | 2.51 |
| United Energy Distribution | 3 APR 2012 | 200 | Fixed | 5 | 6.50 | 2.95 |
| ETSA Utilities | 1 MAR 2012 | 200 | Fixed | 5 | 6.27 | 2.60 |
| SPI Australia | 10 FEB 2012 | 400 | Fixed | 5 | 6.29 | 2.75 |

Source: Bloomberg.

Consistent with the AER’s observations previously, the AER considers that the Bloomberg fair value curve continues to provide DRP estimates which are higher than other potential approaches (such as the ERA’s approach). The Bloomberg fair value curve also provides estimates which are high in comparison to recent bond issuances from firms with similar characteristics to the benchmark firm. For these reasons, the AER has commenced an internal review into alternatives to the Bloomberg fair value curve. The AER will advise of a public consultation process on the development of an alternative in due course. The AER, however, does not expect to implement any new method in time for Envestra's forthcoming access arrangement period. This follows the Tribunal's previous comments on the consultation approach that should be adopted in the development of any new approach.[[276]](#footnote-276)

Forecast inflation

The AER adopts the methodology that was used in its previous regulatory decisions. This methodology involves:

* forecasting inflation for each of the next 10 years, consistent with the use a 10 year term for the risk free rate and other WACC parameters
* taking a geometric average of these values to estimate a 10 year forecast inflation rate
* adopting the RBA's headline inflation forecasts from its latest Statement on Monetary Policy for as many future years as the RBA publishes inflation forecasts, and
* adopting the mid-point of the RBA's inflation target (2.5 per cent) for the remaining futures years out to year 10.
  + 1. Reasonableness check on overall rate of return

In section 4.2.1, the AER sets out its approach to the determination of each parameter within the overall rate of return. In addition, the AER has undertaken reasonableness checks on the overall rate of return. These checks involve having regard to RAB multiples as well as the discount rates in broker reports.

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). It gives limited consideration to the overall WACC estimates, in accordance with the relevant legislation.

* 1. Reasons for draft decision

In forming this draft decision, the AER has considered an extensive range of material on the rate of return. This includes Envestra's access arrangement proposal, the other Victorian gas service providers' proposals, and the submissions into these reviews from users. The AER has also sought a range of expert advice to assist in making these decisions—from the RBA, Treasury, AOFM, Professor McKenzie, Associate Professor Partington and Associate Professor Lally.

In this review, Envestra proposed a 6 per cent MRP but adopted a long run historical average risk free rate (5.99 per cent) for the cost of equity because it considered the AER's approach to the cost of equity in previous decisions resulted in a cost of equity that is too low in current market conditions. The other Victorian gas distribution service providers also proposed this approach. APA GasNet held a similar concern but proposed a different approach. APA GasNet proposed a higher MRP (8.5 per cent).

On the other hand, BHP Billiton submitted that the MRP is between 5-6 per cent. The Energy Users Coalition of Victoria (EUCV) considered the AER should adopt a 5 year term for the risk free rate and an equity beta of 0.65. The 5 year term and 0.65 equity beta were adopted by the ERA in its access arrangement decision for the Dampier to Bunbury Natural Gas Pipeline (DBNGP). The Tribunal found no error in ERA's position on these matters. Incorporating any of the changes proposed by users to the term, equity beta or MRP would result in a lower cost of equity than applying the AER's approach from previous decisions.

In this draft decision, the AER has maintained its cost of equity approach of adopting a prevailing risk free rate (currently 2.98 per cent), an equity beta of 0.8 and a 6 per cent MRP.

In this review, Envestra proposed adopting the extrapolated Bloomberg fair value curve to estimate the DRP.[[277]](#footnote-277) This results in a DRP of 3.82 based on current market data.[[278]](#footnote-278) The other Victorian gas service providers also proposed this approach.[[279]](#footnote-279) BHP Billiton considered this method was appropriate but also considered there was merit in the AER exploring alternative methods.[[280]](#footnote-280)

On the other hand, the EUCV considered the DRP should be no more than 195 basis points above the risk free rate (based on a 5 year term).[[281]](#footnote-281) The EUCV noted this resulted in a DRP similar to the ERA's approach.

In the ATCO and DBNGP matters, the Tribunal upheld the use of the 'bond yield' approach adopted by the ERA.[[282]](#footnote-282) Under this approach the DRP is estimated by averaging observed bond yields that meet certain criteria.[[283]](#footnote-283) The Tribunal did, however, direct the ERA to amend the simple averaging process used to aggregate these bond yields.[[284]](#footnote-284) The Tribunal also provided guidance on the relevance of various criteria and the use of a more complex weighted average.[[285]](#footnote-285) Such a weighted average was implemented by the ERA on remittal.[[286]](#footnote-286) If the bond-yield approach (with the weighting method adopted in the ERA’s re-determination) was applied to Envestra, the DRP would be 2.72 per cent.[[287]](#footnote-287)

In this draft decision, the AER has maintained adoption of the extrapolated Bloomberg BBB rated fair value curve. This currently provides a cost of debt of 6.74 per cent, or DRP of 3.76 per cent.[[288]](#footnote-288)

Taking Envestra's proposal and the submissions from stakeholders together, the AER considers that the rate of return in this draft decision (subject to updating) satisfies the criterion of the NGR.

* + 1. The Capital Asset Pricing Model (CAPM)

A financial model must be a well accepted model if it is 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 and constantly 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.[[289]](#footnote-289)

Envestra proposed to use the Sharpe Lintner CAPM to determine the cost of equity.[[290]](#footnote-290) Envestra, however, also submitted a report from NERA on the Black CAPM. It used the NERA report to cross check the cost of equity estimates derived from the Sharpe Lintner CAPM.[[291]](#footnote-291)

The AER accepts Envestra's proposal to use the Sharpe Lintner CAPM to determine the cost of equity for use in the WACC because it is a well accepted financial model and will produce results commensurate with prevailing market conditions. The AER’s considerations of the use of the Black CAPM to cross check cost of equity estimates are detailed in appendix B.

* + 1. Risk free rate

The AER agrees with Envestra's proposed method for estimating the risk free rate for the cost of debt.[[292]](#footnote-292) The AER does not agree with Envestra's proposed method for estimating the risk free rate for the cost of equity.[[293]](#footnote-293) The method used in this decision is consistent for both the cost of debt and the cost of equity and reflects prevailing conditions in the market for funds. The AER considers the method reflects prevailing conditions in the market for funds because CGS yields represent the most appropriate proxy for the risk free rate because:

* CGS are low risk
* the CGS market is liquid and functioning well, as confirmed by advice from the Reserve Bank of Australia (RBA), the Australian Treasury and the Australian Office of Financial Management (AOFM)[[294]](#footnote-294)
* the RBA advised 'CGS yields are the most appropriate measure of a risk free rate in Australia'.[[295]](#footnote-295)

Further, the AER considers the most appropriate averaging period for determining the risk free rate is a short period (as close as possible to the start of the regulatory period) because:

* at any point in time, the prevailing risk free rate is the benchmark that the expected return on a risky investment must exceed
* prevailing 10 year CGS yields reflect the risk free rate over the appropriate forward looking investment horizon (which is 10 years)
* CGS yields are market determined—that is, prevailing CGS yields reflect the return that investors are willing to receive on an investment that is almost default risk free in current market conditions
* this approach promotes the regulatory objective that the present value of a service provider's expected revenue should match the present value of a service provider's expected expenditure (plus or minus any efficiency rewards or penalties)
* the use of prevailing CGS yields is consistent with the use of the building block model because this model is designed to uphold the present value principle
* the use of prevailing CGS yields is consistent with the use of the CAPM. In the ActewAGL matter, both the expert for the AER (Associate Professor Lally) and the expert for the service provider (Greg Houston) agreed on this matter.[[296]](#footnote-296)
* this approach provides an unbiased method for determining the risk free rate
* advice from Professor McKenzie and Associate Professor Partington, and from Associate Professor Lally supported the use of a prevailing risk free rate.[[297]](#footnote-297)

The AER recognises that CGS yields are near historical lows, but that fact does not invalidate any of the above reasons. The current historically low CGS yields are not surprising, and reflect what would be expected of a well functioning risk free rate proxy in current demand and supply conditions. In the Telstra matter, the Australian Competition Tribunal stated 'it is not unusual for yields to move from time to time in order to reflect prevailing market conditions and the expectations about the prospect for prices into the future'.[[298]](#footnote-298)

CGS yields—the most appropriate proxy for the risk free rate

CGS are low default risk securities issued by the Australian Government. The risk free rate measures the return an investor would expect from an asset with no default risk. Each of the three major credit rating agencies issued its highest possible rating to the Australian Government.[[299]](#footnote-299)

The spreads between CGS yields and the yields on other Australian dollar denominated securities have widened in recent years.[[300]](#footnote-300) On this increase, the RBA advised:

This widening indeed confirms the market's assessment of the risk free nature of CGS and reflects a general increase in the risk premia on other assets.[[301]](#footnote-301)

In the recent DBNGP matter, the Australian Competition Tribunal stated:

The Tribunal notes here that the risk free rate of return is a clearly defined, if abstract, concept. It measures the return on a bond that carries no risk for the investor. It is widely accepted that the closest approximation to such a bond will be government debt.[[302]](#footnote-302)

Further, the RBA and Australian Treasury advised the ACCC on two occasions that the CGS market is liquid and functioning well.[[303]](#footnote-303) The ACCC sought the first set of advice (received August 2007)[[304]](#footnote-304) in response to a NERA report submitted by SP AusNet. Both the RBA and Australian Treasury at that time suggested nominal CGS yields were an appropriate proxy for the risk free rate.[[305]](#footnote-305) On the other hand, both suggested indexed CGS yields were unlikely to provide an appropriate proxy for the real risk free rate.[[306]](#footnote-306) The AER subsequently ceased using indexed CGS to determine inflation expectations.[[307]](#footnote-307)

In July 2012, the Treasury and AOFM stated:

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

In support of this position, they listed several indicators of liquidity:

* the turnover of Treasury bonds, which steadily increased from around $60 billion per month in early 2009 to almost $300 billion per month in June 2012 (inclusive of repurchase transactions)
* bid-offer spreads, which fell between 2008 and June 2012[[308]](#footnote-308)
* repurchase ('repo') margins. The 'repurchase agreement rates on CGS do not indicate any degree of 'tightness''.[[309]](#footnote-309)

A recent speech by Rob Nicholl, chief executive officer of the AOFM, also supported the conclusion that the CGS market is liquid.[[310]](#footnote-310) His comments suggested the AOFM has confidence that the CGS market is "resilient and highly functional".[[311]](#footnote-311)

Further, the Australian Government has a policy of issuing sufficient CGS to ensure liquidity in the market.[[312]](#footnote-312) The Australian Treasury and AOFM stated:

In the context of the 2011-12 Budget, the Government consulted a panel of financial market participants and financial regulators as part of its deliberations on the future of the CGS market. The panel concluded that to maintain a liquid and efficient bond market that supports the futures market and the requirements of the new global bank and liquidity standards, the CGS market should be maintained at around 12 to 14 per cent of GDP over time. The projected amount of CGS on issue over the forward estimates should remain marginally higher than these levels.[[313]](#footnote-313)

The liquidity of the CGS market provides the AER with confidence that market prices accurately reflect investor expectations and market conditions.

Appropriate averaging period and method

The AER considers the best method for determining an appropriate risk free rate is to use an averaging period as close as possible to the beginning of the regulatory period. The following sections outline why the AER holds this view.

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 on the term structure of interest rates is explained in section 2.2.1. This theory is generally regarded as an important part of the expectation of the term structure of interest rates.[[314]](#footnote-314)

CGS yields are market determined

CGS yields are set in a market. 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 price that is low relative to historical averages is not a sign that CGS are 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. The AER believed that applying an averaging period that is closely aligned to the date of the final determination provides an unbiased rate of return that is consistent with the market conditions at the time of the final determination.[[315]](#footnote-315)

An alternative conclusion might be that CGS are currently overpriced. If the price of CGS exceeds their fair value, then the corresponding yield will be 'too low'. But, to draw such a conclusion, the AER would need information superior to that of market participants, or it must 'know better' than the many traders whose interactions set the price of CGS. The AER does not possess a greater ability, expertise or knowledge than market participants and traders to counter any market determination.

In the Telstra matter, the Australian Competition Tribunal acknowledged CGS yields vary over time:

It is not unusual for yields to move from time to time in order to reflect prevailing market conditions and the expectations about the prospect for prices into the future. A downward movement in yields over this period is therefore hardly anomalous, given market conditions.[[316]](#footnote-316)

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.[[317]](#footnote-317)[[318]](#footnote-318)

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.[[319]](#footnote-319)

Since the AER received this advice in February 2012, the 10 year CGS yield has further decreased. For the 20 business day period ending on 10 August, [[320]](#footnote-320) it was 2.98 per cent. The logic in Professor McKenzie and Associate Professor Partington's advice continues to apply. In prevailing market conditions, 2.98 per cent is the benchmark that a risky project must exceed. So, what is the appropriate risk premium above this rate that reflects market conditions and the risk in providing reference services? In the Sharpe-Linter CAPM, the risk premium is the product of the equity beta and the MRP. The AER considers the appropriate equity beta and MRP in sections 4.3.5 and 4.3.3.

Prevailing CGS yields are consistent with the CAPM

For the following reasons, using a CGS yield estimated as close as practical to the beginning of the access arrangement period is consistent with the CAPM. The AER and Envestra agree the CAPM is an appropriate model for estimating the cost of equity. Inputs to a model must be appropriate for using in that model,[[321]](#footnote-321) 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 beginning of the regulatory period), as recognised by the Federal Court in ActewAGL Distribution v The Australian Energy Regulator [2011] FCA 639 (the ActewAGL matter).[[322]](#footnote-322)

During the ActewAGL matter, Associate Professor Lally for the AER and Greg Houston for APTPPL agreed on the best approach to estimating the risk free rate that is consistent with the CAPM. 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.[[323]](#footnote-323)

Associate Professor Lally also 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.[[324]](#footnote-324)

The risk free rate needs to be consistent with the building block approach and present value principle

For the risk free rate, an averaging period that is as close as practical to the start of the regulatory period promotes consistency with the building block model and the present value principle. The NGR prescribe the use of the building block model when the AER is calculating the total revenue allowance. The model has a long history in regulation in Australia.[[325]](#footnote-325)

An important principle of the building block model is the present value principle. In a 2011 paper on public utility regulation in Australia, Dr Darryl Biggar explained the origins of the building block model and what it seeks to achieve.[[326]](#footnote-326) The present value principle in a regulatory context requires:

The present value of the regulated firm's revenue stream should match the present value of its expenditure stream, plus or minus any efficiency incentive rewards or penalties (the present value principle).[[327]](#footnote-327)

In his report for the AER, Lally advised this present value principle is met when the risk free rate is estimated at the beginning of the regulatory control period.[[328]](#footnote-328) Lally also considered the proposition of using a long term historical average risk free rate. (Appendix B discusses long term averaging periods.) He advised this approach would not meet the present value principle.[[329]](#footnote-329)

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 ensures the present value principle holds. 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. Lally stated all three require a risk free rate estimated at the beginning of the regulatory period[[330]](#footnote-330)—literally, the first market price on the first day of the regulatory period.[[331]](#footnote-331) He noted:

... 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.[[332]](#footnote-332)

A short term averaging period as close as practically possible to the regulatory period provides a pragmatic alternative. While the present value principle requires the use of the prevailing rate on the first day of the regulatory period, that approach would be unreasonable and impractical. It would be unreasonable because it would expose the service provider to potential distortions, as Lally described. And it would be impractical because the AER and the service provider could not enact the decision until after the beginning of the regulatory period, which may be after the final decision date. An averaging period between 10 and 40 business days in length provides a practical and reasonable solution.[[333]](#footnote-333)

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.[[334]](#footnote-334)

The AER does not consider a long term averaging period is an appropriate and reasonable departure from the present value principle.

The method is unbiased

Determining the averaging period in advance helps achieve an unbiased risk free rate. For this reason, the AER's approach to determining the risk free rate in this decision is unbiased.

Service providers have an incentive to seek a WACC that is as high as possible, because it will increase their profits. If a service provider can select an averaging period by looking at historical yields, they may introduce an upward bias[[335]](#footnote-335) because 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. Determining the averaging period for a long term average introduces arbitrariness, and no long term averaging period is clearly superior for use. The AER does not consider historical estimates are needed in this case, because a proxy for the risk free rate is readily available. It thus considers a short averaging period, determined in advance, minimises the likelihood of bias.

* + 1. Market risk premium

The AER accepts Envestra’s proposal for an MRP of 6 per cent. The AER notes the 6 per cent MRP was proposed in line with the long term average risk free rate of 5.99 per cent (nominal). Envestra also suggested an alternative approach of using a prevailing risk free rate with a 'current' measure of the MRP[[336]](#footnote-336). In this section, by applying the approach set out in section 4.2.3, the AER still considers an MRP of 6 per cent is the best estimate in the circumstances and commensurate with prevailing conditions in the market for funds.

Given evidence on the MRP is imprecise, the AER considers it is reasonable to assess a range of evidence to estimate the MRP. It considers an MRP of 6.0 per cent is the best estimate in the circumstances and given prevailing conditions in the market for funds, for the following reasons:

* Historical excess returns provided a range of 4.9–6.1 per cent if calculated on an arithmetic mean basis and a range of 3.0–4.7 per cent if calculated on a geometric mean basis.
* Professor McKenzie and Associate Professor Partington advised the AER that a 6 per cent MRP estimate was appropriate. Associate Professor Lally broadly supported the AER's method for estimating the MRP.
* MRP is an economy wide measure, and other regulators in Australia have consistently adopted an MRP estimate of 6 per cent under the same CAPM framework.
* In Envestra, ATCO and DBNGP matters, the AER and the ERA determined 6 per cent as the best estimate of the MRP based on the available evidence. The Australian Competition Tribunal was open for the regulators to adopt 6 per cent for the MRP in these decisions.
* Surveys of market practitioners consistently supported 6 per cent as the most commonly adopted value for the MRP. They also indicated that the average MRP adopted by market practitioners was approximately 6 per cent.

The AER discusses these considerations in the sections below.

In reaching this view, the AER also considered:

* DGM estimates
* other approaches suggested by consultants
* CEG approaches
* Capital Research DGM estimates
* the NERA regime switching model
* the SFG method (implied volatility, credit spread and dividend yield)
* the VAA implied volatility glide path approach
* market commentary
* reasons for the AER's departure from the WACC review.

The AER discusses these considerations in appendix B.

Historical excess returns

Historical excess returns estimate the realised return that stocks have earned in excess of the 10 year government bond rate. So, they are likely to inform investors’ expectations of future returns. The AER observed the latest historical excess returns (which can be directly measured) are 4.9–6.1 per cent based on arithmetic averages and 3.0–4.7 per cent based on geometric averages. It considers these estimates support a forward looking long term MRP of 6 per cent. Given 6 per cent is towards the top of the quoted range, it is more likely to overstate the MRP based on historical excess returns.

Although not strictly forward looking, historical excess returns have predominantly been used to estimate the MRP on the assumption that investors base their forward looking expectations on experience. The Tribunal recognised this view in the DBNGP matter.[[337]](#footnote-337) In a regulatory context, the use of historical excess returns has advantages, as supported by McKenzie and Partington in their December 2011 MRP report:

* 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.[[338]](#footnote-338)

A few studies indicated there is no better forecast of excess returns than the historical average.[[339]](#footnote-339) Goyal and Welch examined 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 found:

As of the end of 2005, most models have lost statistical significance, both IS [in-sample] and OOS [out-of-sample]. OOS, most models not only fail to beat the unconditional benchmark (the prevailing mean) in a statistically or economically significant manner, but underperform it outright.[[340]](#footnote-340)

The long term averages of historical excess returns, adjusted to incorporate an imputation credit utilisation rate (theta) of 0.35[[341]](#footnote-341), 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, 1958–2011, 1980–2011 and 1988–2011 (Table 4.3). 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).[[342]](#footnote-342)

* + - * 1. 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 | 6.1a | 4.7 |
| 1937–2011 | 5.7a | 3.7 |
| 1958–2011 | 6.1a | 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.[[343]](#footnote-343)

After considering strengths and weaknesses of each estimation period, the AER considers all five periods are relevant for the following reasons:

* 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).[[344]](#footnote-344)
* Shorter time series are more vulnerable to influence by the current stage of the business cycle or other (one-off) events. [[345]](#footnote-345)

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 returns are variable, 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.[[346]](#footnote-346)

The AER considers both the arithmetic and geometric averages are important to consider when estimating a 10 year forward looking MRP using historical annual excess returns. The Tribunal has found no error with this approach.[[347]](#footnote-347) The best estimate of historical excess returns over a 10 year period is thus likely to be somewhere between the geometric average and the arithmetic average of annual excess returns. The AER considered SFG's, NERA's and Lally’s views on arithmetic and geometric averages of historical excess returns in appendix B.

Bias in historical excess returns

In their December 2011 MRP report, McKenzie and Partington suggested MRP estimates based on historical data may be overstated relative to true expectations, as a result of survivorship bias.[[348]](#footnote-348) According to Damodoran (2011), survivorship bias is created by estimating historical returns on only stocks that have survived.[[349]](#footnote-349) Historical data excludes negative return stocks that no longer exist, which naturally results in higher return estimates. McKenzie and Partington[[350]](#footnote-350) and Joye[[351]](#footnote-351) supported this view. The AER notes this upward bias is a relevant consideration because the various Australian stock indexes exclude the failed stocks.[[352]](#footnote-352) Other arguments also suggest the historical excess returns are upwardly biased. Siegel (1999) argued unanticipated inflation means historical returns underestimate real returns on risk free assets.[[353]](#footnote-353) He also argued historical returns on equity overstate returns actually realised, given historically high transaction costs and the historical lack of low cost opportunities for diversification.[[354]](#footnote-354)

Lally 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.[[355]](#footnote-355) 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.[[356]](#footnote-356)

The AER considers the bias is a relevant consideration when estimating the MRP using historical excess returns. Given that 6 per cent is towards the top of the historical excess returns range, the AER considers historical excess returns provide a conservative estimate of the MRP.

Recent practice among Australian regulators

The AER notes 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 for a long term (for example, 10 years), which means short term (for example, one year) market fluctuations have little relevance.
* The MRP is for a domestic CAPM, which means overseas evidence has limited relevance.

Table 4.4 shows decisions from Australian state and territory regulators dealing with electricity, gas, water, rail and postal services. It also includes decisions by the ACCC for various regulated sectors.

* + - * 1. Recent regulatory decisions

|  |  |  |  |
| --- | --- | --- | --- |
| Regulator | Decision date | Sector | MRP (%) |
| ACCC | May 2010 | Postal services | 6.0 |
| QCA | June 2010 | Water | 6.0 |
| QCA | September 2010 | Rail | 6.0 |
| ACCC | December 2010 | Rail | 6.0 |
| ERA | February 2011 | Gas | 6.0 |
| ACCC | July 2011 | Telecommunications | 6.0 |
| ACCC | July 2011 | Water | 6.0 |
| ESCV | August 2011 | Rail | 6.0 |
| ACCC | September 2011 | Airports | 6.0 |
| ERA | October 2011 | Gas | 6.0 |
| QCA | November 2011 | Water | 6.0 |
| IPART | December 2011 | Water | 5.5–6.5 |
| ESCOSA | February 2012 | Water | 6.0 |
| IPART | June 2012 | Water | 5.5–6.5 |
| IPART | June 2012 | Water | 5.5–6.5 |
| IPART | July 2012 | Electricity | 5.5–6.5 |
| ERA | September 2012 | Electricity | 6.0 |

Source: ACCC,[[357]](#footnote-357) ERA,[[358]](#footnote-358) ESC,[[359]](#footnote-359) QCA.[[360]](#footnote-360) IPART[[361]](#footnote-361), ESCOSA[[362]](#footnote-362).

The AER considers the decisions by other Australian regulators are relevant because the MRP is an economy wide measure. Recent decisions by other Australian regulators support the view that a forward looking MRP of 6 per cent is the best estimate in the current circumstances.

Recent Australian Competition Tribunal decisions

In 2011, Envestra challenged the AER’s decisions to approve an MRP of 6 per cent for Envestra’s South Australian and Queensland gas distribution businesses. Envestra claimed the AER should have accepted Envestra’s proposed 6.5 per cent MRP. The Tribunal concluded the AER has scope to determine an MRP that ‘is 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%.[[363]](#footnote-363)

The Tribunal handed down a similar decision in its review of ATCO’s (formerly WA Gas Network’s) and DBNGP’s access arrangements.[[364]](#footnote-364) In both decisions, the ERA considered the available information and exercised its discretion to determine the appropriate MRP. The Tribunal subsequently found no error in the ERA’s determination of a 6.0 per cent MRP.

Survey evidence

In estimating the MRP, the AER is estimating investors’ expectations of the MRP in the future, and not simply estimating the excess stock market returns achieved in the past. It considers surveys of market practitioners and academics are relevant because they reflect the forward looking MRP as applied. The AER is aware of Tribunal's comments on the survey evidence. Applying the criteria noted by the Tribunal to the survey evidence considered in this decision,[[365]](#footnote-365) the AER concluded the survey results are relevant to inform the forward looking 10 year MRP.

Survey based evidence needs to be treated with caution because the results may be subject to limitations. The relevance of some survey results depends on how clearly the survey sets out the framework for MRP estimation. This framework 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 different time horizons and have differing views on the market risk. However, this concern may be mitigated as the sample size increases. The AER also acknowledges the Tribunal’s concern about survey evidence.[[366]](#footnote-366)

The AER considered survey evidence before and after the WACC review. Survey evidence before the WACC decision includes the following:

* 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.[[367]](#footnote-367)
* Capital Research (2006) found the average MRP adopted across a number of brokers was 5.09 per cent.[[368]](#footnote-368)
* 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.[[369]](#footnote-369)

Survey evidence after the WACC decision includes the following:

* 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.[[370]](#footnote-370)
* 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.[[371]](#footnote-371)
* 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.[[372]](#footnote-372)
* 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.[[373]](#footnote-373)
* 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.[[374]](#footnote-374)

Table 4.5 summarises the key findings of the surveys.

* + - * 1. Key findings of MRP surveys

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Numbers of responses | Mean | Median | Mode |
| KPMG (2005) | 33 | 7.5% | 6.0% | 6.0% |
| CaptialCapital 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) | 49 | 4.7% | 5.0% | 5.0% |

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)).

The AER considers 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 reported MRP was 6 per cent.

McKenzie and Partington placed significant weight on the survey evidence due to the triangulation of that evidence.[[375]](#footnote-375) 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), but that the type of bias would likely be much less consistent across surveys using different methods and different target populations.

The AER applied the available survey evidence against the criteria noted by Tribunal in appendix B. After consideration of this analysis and McKenzie and Partington’s view, the AER considers survey based estimates of the MRP are relevant to inform the forward looking MRP. Survey evidence supports a forward looking MRP of 6 per cent as the best estimate in the current circumstances. Appendix B details the AER's analysis and reasons for its decision on survey evidence.

* + 1. Relationship between the risk free rate and the market risk premium

The AER is determining the rate of return for Envestra in the context of CGS yields being at an historical low. The AER and Envestra both adopted the Sharpe-Lintner CAPM as the accepted model for determining the cost of equity[[376]](#footnote-376). The effect of using this lower risk free rate within the Sharpe-Lintner CAPM, all things being equal, is to lower the cost of equity from that determined by the AER in previous decisions. In this context, Envestra proposed a long term historical average risk free rate.

The AER considered this interrelationship between the risk free rate and the market risk premium under the following four broad categories:

* the regulatory requirements under the NGR and NGL—specifically, whether it is appropriate in this framework for adjusting the MRP estimate to address or 'rectify' a perceived problem or difficulty in the calculation of the risk free rate
* the need for consistency in how the MRP and risk free rate are estimated
* the economic interdependencies between these two parameters—specifically, whether the MRP is high when the risk free rate is low
* other regulatory systems.

Regulatory requirements

The AER has consistently maintained that each parameter should be estimated based on considerations that meet the criteria and objective set out in Rule 87 of the NGR. A parameter should not be adjusted to address or rectify a perceived problem or difficulty with the calculation of another parameter. The AER understands Rule 87 operates as follows:

* Rule 87(1) describes the objective in determining the WACC but does not guide how the objective is to be achieved.
* Rule 87(2) describes how the objective is to be achieved, including through a well accepted approach (such as the WACC) and a well accepted financial model (such as the CAPM).
* Rule 87(1) informs the selection of appropriate input parameters to use in the well accepted approach and well accepted financial model. That is, input parameters must reflect prevailing conditions in the market for funds, and the risk from providing reference services.

This interpretation is consistent with the Australian Competition Tribunal's position in two recent decisions, for ATCO (previously known as WA Gas Networks) and DBNGP.[[377]](#footnote-377)

The AER uses the CAPM to estimate the cost of equity to determine the WACC under rule 87(2) of the NGR. The MRP, like the risk free rate, is an input to the calculation of the cost of equity for that WACC. Maintaining the integrity of each parameter promotes rigour and robustness in the estimation of each parameter. But addressing a problem with one parameter by adjusting another parameter introduces subjectivity. The AER is unaware of any well accepted method for making such adjustments without introducing subjectivity or greater regulatory risk[[378]](#footnote-378). Rather, the AER considered a range of evidence and determined the appropriate WACC input parameters when assessing the proposed rate of return. This approach is consistent with the objectives of the NGR.

Importantly, the AER considers the input parameters will not reflect prevailing conditions in the market for funds if an otherwise appropriate parameter is altered to resolve an issue elsewhere. Lally supported this view:

... CEG’s proposed methodology sacrifices a relevant, critical and observable parameter within the cost of equity (the current risk free rate) in order to offset alleged errors in another parameter (the market risk premium).[[379]](#footnote-379)

Envestra proposed a risk free rate above the prevailing rate, according to CEG's recommendation. Specifically, CEG recommended adopting a long term historical average risk free rate (5.99 per cent) with what it argued as a long term historical MRP of 6 per cent.

For reasons set out in this decision, the AER considers a 6 per cent MRP reflects prevailing conditions in the market for funds and also the risks from providing reference services. However, even if this was not the case, the AER considers (for the reasons outline above) adjusting the risk free rate to address a perceived problem with the MRP would not be appropriate. It does not accept this approach would be preferable to its current approach to setting parameters. Further, it considers the approach would not be consistent with r. 87 of the NGR, particularly in light of the Tribunal’s construction of this rule in the ATCO and DBNGP matters.

Consistency of the MRP and risk free rate estimates

Envestra suggested the WACC determined by the AER does not provide the best estimate of the cost of equity because the AER adopts an MRP that reflects the long term average and uses a risk free rate that reflects current market conditions.[[380]](#footnote-380) This suggested bias is a mischaracterisation. The AER estimates a WACC that is consistent with the CAPM and requirements of the rules.

The CAPM should be estimated at the beginning of the investment period and should reflect expectations for the investment horizon.[[381]](#footnote-381) Accordingly, both the risk free rate and the MRP are estimated at the beginning of the period (or rather, as close as is practically possible) and reflect expectations for the investment horizon.

Rule 87(1) of the NGR requires the AER to estimate a rate of return that reflects prevailing conditions in the market for funds. These prevailing conditions can be considered ‘prevailing expectations’ over the relevant forward looking investment horizon, which is 10 years.[[382]](#footnote-382) Accordingly, both the risk free rate and the MRP are forward looking estimates, although estimated using different types of data.

To satisfy these requirements in practice involves the use of differing methodologies and data sources. The risk free rate is not directly observable, but a proxy for the risk free rate is directly observable. A 10 year forward looking risk free rate can be estimated based on current market data (using 10 year CGS yields as the proxy).[[383]](#footnote-383) On the other hand, the MRP is unobservable and there are no reliable proxies for it that can be directly observed. Prevailing MRP estimates using current market data will not necessarily reflect forward looking expectations and are influenced by the assumptions used.[[384]](#footnote-384) Accordingly, a broader set of evidence is needed to judge the MRP.

Long term historical average excess returns are one such source of evidence, and they are used on the basis that historical realised returns are likely to influence investors’ expectations. The AER also considered forward looking evidence (such as survey evidence) in determining the appropriate estimate for the MRP. The use of judgement does not detract from the fact that the MRP is estimated as close as practical to the beginning of the period, and reflects expectations over the 10 year investment horizon.

Therefore, the AER does not use a short term estimate with a long term estimate. The AER uses estimates that reflect prevailing conditions and expectations over a 10 year investment horizon.

Economic interdependencies

Envestra proposed a long term historical average risk free rate. Its contention was based on the CEG report that the MRP and the risk free rate have a negative relationship. In turn, the AER considered three aspects of this issue: the theoretical argument, the empirical evidence and the CEG chart based on the AMP method.

Theoretical argument

The AER acknowledges a possible theoretical case for a negative relationship between the risk free rate and MRP in certain circumstances. But there is no sound basis for establishing any such theoretical relationship for the duration of the relevant investment horizon. That investment horizon is a 10 year forward looking period for both the risk free rate and MRP. Additionally, as discussed below, the empirical evidence in support of such a relationship over the relevant period is not conclusive.

Lally considered:

Although there is nothing in finance theory that supports (or rejects) a negative relationship between the CGS rate and the market risk premium, a negative relationship is plausible because the market risk premium is compensation for bearing equity risk, equity risk (volatility) seems to be greatest in depressed economic conditions, and the risk free rate also tends to be lowest in depressed economic conditions.[[385]](#footnote-385)

However, Lally continued:

... whilst CGS yields are very low because of generally depressed world economic conditions, Australia is not experiencing depressed economic conditions. Furthermore, even if the correlation between the CGS yield and the MRP were negative, the significant issue for regulatory purposes is the strength of this relationship and especially its strength in respect of the ten year risk free rate and the ten year MRP. Market volatility (and therefore the market risk premium) might be high today but volatility (and hence the MRP) tends to rapidly subside to normal levels (French et al. 1987, Figure 1a) and the MRP for the next ten years might not then be greatly increased by a temporary upsurge in volatility.[[386]](#footnote-386)

This consideration is pertinent to the AER’s task because the AER is estimating a 10 year forward looking MRP. Accordingly, despite a possible tendency for the negative relationship over the short term, neither the theory nor the empirical evidence (see below) before the AER (including the material submitted by CEG) supports this relationship over longer periods.

Empirical evidence

In response to a similar proposal submitted by Aurora, the AER’s consultants, McKenzie and Partington, considered the available material. McKenzie and Partington noted some empirical evidence of a negative correlation between the short term nominal government bill yield (short term) and future nominal excess returns on the market. However, this negative correlation becomes weaker as the time horizon becomes longer. Further, the explanatory power of these regressions is low. Consequently, these regressions are unlikely to provide a reliable forecast of excess returns. McKenzie and Partington stated:

Low explanatory power is usual for equations that predict returns, but in the current case it does mean that the effect of the yield is readily offset by random variation in other factors. In other words, random variation represents most of the excess returns. It also seems that the relation is not particularly stable. A consequence of low explanatory power and instability is that the regression between yields and excess returns is unlikely to provide a reliable forecast of excess returns.[[387]](#footnote-387)

Lally noted CEG did not present any persuasive evidence of a strong negative relationship between the 10 year forward looking risk free rate and the 10 year forward looking MRP:

* The Lettau and Ludvigson (2001) paper examined the US 30 day Treasury Bill rate rather than the 10 year rate. Further, this short term negative relationship reversed after two years.
* The Smithers and Co’s advice was based on 'Siegel’s constant'. Siegel’s arguments are concerned with real rather than nominal returns. Even in real terms, Siegel did not suggest the MRP moves inversely with the risk free rate to the point that the cost of equity is largely unchanged.
* The rise in the expected rate of return on state government debt might have been due entirely to increases in expected default losses and liquid premium relative to CGS yield. In this case, the MRP would not increase with the debt risk premium.[[388]](#footnote-388)

The AER considers the concerns raised by Lally are relevant because the AER is estimating a 10 year forward looking MRP, not a forward looking MRP over a short time horizon. Based on the advice from McKenzie and Partington, and Lally, the AER concludes the empirical evidence is not strong in support of a negative correlation between the risk free rate and the MRP. It also considers any such negative relationship would not warrant adjusting the MRP to compensate for the risk free rate. Further, recent literature suggests the relationship could be positive.[[389]](#footnote-389)

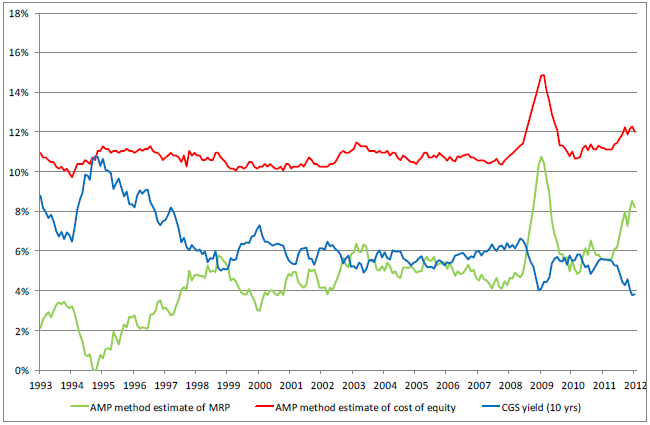
CEG chart based on the AMP method

The AER examined the CEG chart (reproduced below), which is based on the AMP method. CEG derived this time series by first estimating the prevailing cost of equity (the red line) and then calculating the MRP (the green line) by subtracting the prevailing 10 year CGS yield at any point in time (the blue line).[[390]](#footnote-390) The red line is relatively stable over time. Subtracting the blue line from the red line thus creates the appearance of a strong negative correlation between the risk free rate (green line) and MRP (blue line). Lally identified this problem. He found the CEG AMP method uses a perfect offset assumption[[391]](#footnote-391) and thus generates results showing a stable cost of equity over time.[[392]](#footnote-392) Lally described CEG's chart as being 'predisposed' to the result that it displays.[[393]](#footnote-393) For these reasons, the AER considers this chart is not valid empirical evidence of a negative relationship between the prevailing market risk premium and the prevailing risk free rate. Additionally, because CEG's AMP method is based on the DGM model, that model's general limitations (outlined in section 4.3.3) also apply to this analysis.

Lally also pointed out this method produces an MRP estimate of zero in 1994—an 'implausible' result. Combining these points, Lally concluded:

Thus, if the perfect-offset hypothesis should be rejected in 1994 when the risk free rate was unusually high, it should also be rejected in 2012 when the risk free rate was unusually low.[[394]](#footnote-394)

* + - 1. CEG AMP method estimate of Return on Equity and MRP relative to 10 year CGS yields



Source: CEG, Internal consistency of risk free rate and MRP in the CAPM, March 2012, figure 8.

Other regulatory systems

CEG suggested the AER should consider regulatory precedent outside Australia when it makes its decision under Rule 87 of the NGR. CEG stated that UK and the US regulators generally support adjusting the cost of equity when risk free rates are unusually low.[[395]](#footnote-395)

The AER acknowledges the UK regulators make an upward adjustment in the risk free rate when the prevailing risk free rate is low, while the US regulators tend to use the DGM to estimate the cost of equity. It considers these decisions are not comparable to those of the AER because they are made under a different legal framework. Under Rule 40 of the NGR, the AER can withhold its approval if it considers a preferable alternative exists that complies with the NGR and NGL requirements and criteria.[[396]](#footnote-396)

The AER notes the risk free rate is low at the moment. However, it does not consider making an upward adjustment to the risk free rate is appropriate for the reasons set out in section 4.3.2. The AER notes DGM analysis is subject to a number of limitations when estimating a forward looking MRP. This is discussed in appendix B. In addition, Lally noted using DGM to directly estimate the cost of equity is subject to two further problems:

* The regulated business would have a very strong incentive to manipulate its dividend policy in order to maximise its regulatory return.
* This estimate does not accurately reflect the cost of equity of the regulated activity if the business also undertakes unregulated activity.[[397]](#footnote-397)

The AER considers it is inappropriate to rely on DGM estimates or use long term historical risk free rate when the risk free rate is low. This is in accordance with our interpretation of the NGR. That is the AER is to determine the best estimate possible in the circumstances commensurate with prevailing conditions in the market for funds.

* + 1. Equity beta

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.

Envestra proposed an equity beta of 0.8, noting that although consistent with the Access Arrangements for Envestra in South Australia and Queensland, an equity beta of 0.8-0.9 was used by Grant Samuel in its expert report on the proposed acquisition of the Alinta assets.[[398]](#footnote-398)

The AER considers that the empirical evidence presented in the WACC review contains the best available estimate of the equity beta that would apply to a benchmark gas distribution network service provider, taking into account the need to reflect prevailing market conditions and the risks involved in providing reference services. This empirical evidence indicated a point estimate of between 0.4 and 0.7 for the equity beta of electricity and gas service providers.[[399]](#footnote-399) The adopting of 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.[[400]](#footnote-400) Since the WACC review, the AER has adopted 0.8 in each of its regulatory decisions for other gas distribution and transmission service providers. Cross checks against Australian water utilities or overseas electricity and gas networks also indicate that the equity beta set by the AER is reasonable.

The AER therefore accepts Envestra's proposal for an equity beta of 0.8. This is also consistent with the range used by Grant Samuel as submitted by Envestra.[[401]](#footnote-401)

The Energy Users Coalition of Victoria (EUCV) noted there is a substantial body of evidence that beta is less than 1 (and even less than 0.8). EUCV submitted the equity beta for Envestra should be 0.65. The EUCV noted that:

* The empirical evidence undertaken during the WACC review implies a beta of 0.55.[[402]](#footnote-402)
* The ESCV set the equity beta at 0.7 in March 2008 for gas distribution service providers, commenting after considerable investigation that the beta estimates using the longest period of data, range between 0.5 and 0.7.[[403]](#footnote-403)
* Work undertaken by ERA that uses more recent data than that considered in the WACC review provides evidence for an equity beta of 0.65. The ERA suggests beta should be 0.65 in the draft decision for Western Power.

The EUCV considers that this evidence demonstrates that beta at 0.8 is too high.[[404]](#footnote-404)

The AER acknowledges that there is empirical evidence indicating that an equity beta less than 0.8 may be reasonable. However, during the WACC review the AER also took account of other considerations including regulatory stability and the level of imprecision in the empirical estimates. Having regard to this, the AER considers 0.8 to still be reasonable at this time. However, the estimates presented by the EUCV may, together with other information, provide additional evidence to change the equity beta in the future.

The AER has given consideration to other factors, such as the need to achieve an outcome that is consistent with the NGO—in particular, the need for efficient investment in natural gas services for the long-term interests of consumers of natural gas. The AER has also taken into account the revenue and pricing principles, the importance of regulatory stability and is also mindful it has recently considered an equity beta of 0.8 to be appropriate, if not overstated, for other gas businesses. On the basis of the information presented, the AER concludes that an equity beta of 0.8 provides Envestra with an opportunity to recover at least its efficient costs incurred in providing reference services and meeting regulatory requirements.[[405]](#footnote-405)

* + 1. Debt risk premium

The AER accepts, in principle, Envestra's proposed benchmark and method for determining the DRP. The AER, however, has updated Envestra's proposed DRP to reflect the indicative averaging period used throughout this draft decision. This results in a DRP of 3.76 per cent.[[406]](#footnote-406) The AER will again update this value for its final decisions based on Envestra's final averaging period.

Specifically, the AER accepts Envestra's proposed DRP benchmark based on an Australian corporate fixed rate bond issuance with a term to maturity of 10 years and a BBB+ credit rating.[[407]](#footnote-407) This benchmark assumption has been adopted by the AER in previous gas decisions.[[408]](#footnote-408) Moreover, the AER considers that the term to maturity and credit rating are two primary factors which are reflective of the risks involved in providing reference services.[[409]](#footnote-409) The 10 year term for the cost of debt also provides internal consistency with the use of a 10 year risk free rate.

Further, the AER accepts Envestra's proposed approach to establishing the DRP. In particular, the AER accepts Envestra's proposal to estimate the benchmark DRP solely on the Bloomberg BBB fair value curve. Notwithstanding that the AER has previously expressed concerned with the Bloomberg fair value curve, the AER is mindful of the Tribunal’s recommendation that a public consultation process be completed before any alternative methodologies are considered.[[410]](#footnote-410)

The AER also accepts Envestra's proposed method to extrapolate the Bloomberg BBB fair value curve from seven to 10 years based on the analysis of paired bonds undertaken by PwC.[[411]](#footnote-411) The AER, however, does not consider that this extrapolation approach has been correctly applied by PwC.

PwC’s method extrapolates the Bloomberg seven year BBB fair value curve using the average annual increment observed across pairs of bonds of differing maturities issued by the same company. PwC's criteria for selecting the sample of paired bonds included that:

* the paired bonds were part of the wider sample used by PwC when conducting their broader econometric analysis
* the shorter dated bond (of the pair) has a remaining term to maturity closest to seven years.[[412]](#footnote-412)

Based on PwC’s selection criteria, the AER cannot reconcile the inclusion of the paired Telstra bonds in PwC’s extrapolation sample. Specifically, Telstra bonds have a credit rating of ‘A’ by Standard and Poors. Amongst other characteristics, the broader econometric sample used by PwC (of which the paired bonds must be a subset) only included bonds with a credit rating of ‘BBB’, ‘BBB+’ or ‘A-’ by Standard and Poors.[[413]](#footnote-413)

Additionally, PwC's extrapolation sample included a pair of fixed rate Stockland bonds maturing in 2015 and 2020. However, a fixed rate Stockland bond matching all of PwC's selection criteria exists which matures in 2016. The AER considers that the correct application of PwC's selection criteria requires the 2016 bond to be used (instead of that maturing in 2015).

For the purposes of this draft decision, therefore, the AER has excluded the Telstra bonds from the extrapolation sample. The AER has also updated PwC's analysis to reflect the spread between the pair of Stockland bonds maturing in 2016 and 2020. The AER, however, will consider including these bonds for the final decision should Envestra substantiate their inclusion. The AER considers that excluding the Telstra bonds and amending the Stockland pair is consistent with a benchmark DRP that reflects the risks involved in providing reference services.

In assessing Envestra's proposal, the AER has also taken into account the EUCV's submission.[[414]](#footnote-414) The EUCV stated that the approach to determining the DRP used by the AER cannot be demonstrated to produce an efficient outcome. Further, the EUCV presented average debt premiums for each of the Victorian gas networks from the corresponding annual reports.

The AER, however, considers that the EUCV's analysis of annual report data is flawed. Most notably, it is unclear whether the average term of the debt referenced by the EUCV corresponds to the benchmark term adopted by the AER. In this context, it is inappropriate to calculate the DRP for an entire portfolio with reference only to the 10 year risk free rate.[[415]](#footnote-415) This notwithstanding, the issues raised by the EUCV—for example, that the current DRP method does not reflect the full spectrum of debt options utilised by NSPs—warrant broader consideration. This is consistent with the Tribunal’s recommendation to undertake a public consultation process before selecting an alternative DRP methodology.[[416]](#footnote-416) For these reasons, the AER has commenced an internal review into alternatives to the Bloomberg fair value curve. The AER will advise of a public consultation process on the development of an alternative in due course.

* + 1. Forecast inflation

The AER approves Envestra's proposed methodology[[417]](#footnote-417) for estimating forecast inflation. The proposed methodology is consistent with that adopted by the AER in previous regulatory decisions.

Envestra used this methodology and derived an inflation forecast of 2.5 per cent using the February 2012 RBA forecasts. In this draft decision, the AER updates the RBA short term inflation forecasts resulting in an indicative inflation forecast of 2.50 per cent. This is shown in Table 4.6.

* + - * 1. AER inflation forecast (per cent)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015–2022 | Geometric average |
| Forecast inflation | 2.50 a | 2.50a | 2.50 | 2.50 |

Source: RBA, Statement on Monetary Policy, August 2012, p. 67.

Notes: (a) The RBA published a range of 2-3 per cent for its 2013 and 2014 forecast inflation. The AER has selected the mid-point of 2.5 per cent for the purposes of this draft decision.

For the final decision, the AER will again update the RBA's short term inflation forecasts based on the most recent RBA Statement on Monetary Policy at the time of the final decision.

* + 1. Gearing ratio

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 costs of debt and equity when formulating the overall rate of return. Under rule 87 of the NGR, the AER needs to determine the gearing ratio based on the assumption that the service provider meets the benchmark level of efficiency.

Envestra proposed a gearing ratio of 60:40 (that is, 60 per cent debt).[[418]](#footnote-418) The AER accepts this gearing ratio because it is supported by relevant available empirical evidence.[[419]](#footnote-419) Additionally, as the AER noted in its decision for ETSA SA, when determining this gearing ratio the AER included gas businesses as close comparators to the benchmark electricity business. The AER considers that this reasoning also holds in reverse—that is, electricity businesses are close comparators for the benchmark efficient gas business.[[420]](#footnote-420) For the reasons outlined in the AER's WACC review, the AER still considers that a gearing ratio of 60:40 will to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers.[[421]](#footnote-421)

* + 1. Reasonableness checks on overall rate of return

The AER considers the approach in this decision provides a reasonable estimate of the benchmark WACC. At the same time, the AER recognises that the overall rate of return in this decision is lower than previous decisions. There is no single robust methodology 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.

The overall rate of return is unobservable, the AER assesses overall rate of return using market data and finance theory. 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 draft decision, the AER determines an overall rate of return using a nominal vanilla WACC of 7.16 per cent. This is based on a cost of equity of 7.78 per cent, a cost of debt of 6.74 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, Grant Samuel and brokers' reports identified 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 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 (7.76-10.02 per cent). However, the AER notes broker WACC technique is subject to known limitations and inherent imprecision. Further, broker WACC estimates 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 recent AER decisions, it is in line with recent regulatory decisions made by other Australian regulators (6.45-9.08 per cent).
* Consistent with previous decisions, the AER determined cost of equity is greater than the cost of debt for this draft decision.

Appendix B explores each overall rate of return reasonableness check technique in detail.

* 1. Revisions

The AER proposes the following revisions to make SP AusNet's access arrangement proposal acceptable:

Revision 4.1: Make all necessary amendments to reflect the AER's draft decision on the rate of return, as reflected in

1. Depreciation

When determining the total revenue for Envestra’s Victorian and Albury distribution businesses (Envestra), the AER must decide on the depreciation for the projected capital base (or return of capital).[[422]](#footnote-422) Regulatory depreciation is used to model the nominal asset values over the access arrangement period and the depreciation allowance in the total revenue requirement. The AER’s draft decision on Envestra’s annual regulatory depreciation allowances is outlined in this attachment. [[423]](#footnote-423) The AER’s consideration of specific matters that affect the estimate of regulatory depreciation over the 2013–17 access arrangement period is also outlined in this attachment. 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.
  1. Draft decision

The AER approves Envestra's proposal to use the straight-line method to calculate the regulatory depreciation allowances as set out in the post-tax revenue model (PTRM). However, the AER does not approve Envestra's proposed regulatory depreciation allowances of $101.8 million ($nominal) and $3.6 million ($nominal), for its Victorian and Albury distribution businesses respectively, over the 2013–17 access arrangement period. This is because of the AER's recalculation of Envestra's remaining economic lives and its draft decisions on other components of Envestra's proposal that impact on the proposed regulatory depreciation allowances. These other components are discussed in other attachments and include:

* the projected opening capital base (attachment 2)
* forecast net capex (attachment 3).

With the exception of the 'Land & buildings' and 'SCADA' asset classes, the AER approves Envestra's proposed standard economic lives assigned to each of its asset classes for the 2013–17 access arrangement period. This is because they are consistent with the Essential Services Commission’s (ESC's) approved standard economic lives in the 2008–12 access arrangement period.

The AER accepts Envestra's proposed weighted average method to calculate the remaining economic lives as at 1 January 2013. However, the AER has updated Envestra's remaining economic lives as at 1 January 2013 to reflect the AER's adjustments to Envestra's opening capital base roll forward (discussed in attachment 2).

The AER's draft decisions on Envestra's total regulatory depreciation allowances over the 2013–17 access arrangement period are:

* Envestra Victoria—$88.9 million ($nominal) as shown in . This represents a reduction of $12.9 million ($nominal) or 12.7 per cent of Envestra's proposal.
* Envestra Albury—$3.8 million ($nominal) as shown in table 5.2. This represents an increase of $0.2 million ($nominal) or 5.5 per cent of Envestra's proposal.
  + - * 1. AER's draft decision on Envestra Victoria's depreciation allowance   
           ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Straight-line depreciation | 39.8 | 43.8 | 49.4 | 53.3 | 57.0 | 243.3 |
| Less: indexation on opening capital base | 27.7 | 29.4 | 31.2 | 32.4 | 33.7 | 154.4 |
| Regulatory depreciation | 12.1 | 14.4 | 18.2 | 20.9 | 23.3 | 88.9 |

Source: AER analysis.

* + - * 1. AER's draft decision on Envestra Albury's depreciation allowance   
           ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Straight-line depreciation | 1.4 | 1.5 | 1.7 | 1.8 | 1.9 | 8.2 |
| Less: indexation on opening capital base | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 4.4 |
| Regulatory depreciation | 0.5 | 0.6 | 0.8 | 0.9 | 0.9 | 3.8 |

Source: AER analysis.

* 1. Envestra's proposal

For the 2013–17 access arrangement period, Envestra proposed total forecast regulatory depreciation allowances of:[[424]](#footnote-424)

* Envestra Victoria—$101.8 million ($nominal) as set out in table 5.3.
* Envestra Albury—$3.6 million ($nominal) as set out in table 5.4.

To calculate the depreciation allowances, Envestra proposed:[[425]](#footnote-425)

* standard economic lives for depreciating new assets associated with forecast net capex. Envestra did not propose any new asset classes for the 2013–17 access arrangement period
* remaining economic lives as at 1 January 2013 for depreciating existing assets in the opening capital base as at 1 January 2013.
  + - * 1. Envestra Victoria's proposed depreciation allowance ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Straight-line depreciation | 41.5 | 48.8 | 57.5 | 64.0 | 70.4 | 282.3 |
| Less: indexation on opening capital base | 27.9 | 31.9 | 36.6 | 40.2 | 43.9 | 180.5 |
| Regulatory depreciation | 13.6 | 17.0 | 20.9 | 23.8 | 26.5 | 101.8 |

Source: Envestra Victoria, PTRM, March 2012.

* + - * 1. Envestra Albury's proposed depreciation allowance ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Straight-line depreciation | 1.4 | 1.5 | 1.7 | 1.8 | 1.9 | 8.3 |
| Less: indexation on opening capital base | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 4.7 |
| Regulatory depreciation | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 3.6 |

Source: Envestra Albury, PTRM, March 2012.

* 1. Assessment approach

In its access arrangement proposal, Envestra must provide a forecast of depreciation for the 2013–17 access arrangement period, including a demonstration of how the forecast is derived on the basis of the proposed depreciation method.[[426]](#footnote-426) The depreciation schedule sets out the basis on which the pipeline assets constituting the capital base are to be depreciated for the purpose of determining a reference tariff. The depreciation schedule may consist of a number of separate schedules, each relating to a particular asset or class of asset.[[427]](#footnote-427) In making a decision on the proposed depreciation schedule, the AER is to assess the compliance of the proposed depreciation schedule with the depreciation criteria set out in the NGR.[[428]](#footnote-428) The AER must also take into account the depreciation schedule approved in the 2008–12 access arrangement period, [[429]](#footnote-429) the NGO and the revenue and pricing principles.[[430]](#footnote-430)

The AER’s discretion under the depreciation criteria is limited.[[431]](#footnote-431) The depreciation criteria state that the depreciation schedule should be designed:

* so that reference tariffs will vary, over time, in a way that promotes efficient growth in the market for reference services[[432]](#footnote-432)
* so that each asset or group of assets is depreciated over the economic life of that asset or group of assets[[433]](#footnote-433)
* so as to allow, as far as reasonably practicable, for adjustment reflecting changes in the expected economic life of a particular asset, or a particular group of assets[[434]](#footnote-434)
* so that (subject to the rules about capital redundancy), an asset is depreciated only once[[435]](#footnote-435)
* so as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.[[436]](#footnote-436)

The depreciation criteria also state that to comply with the rule regarding efficient growth in the market for reference services, a substantial amount of depreciation may be deferred.[[437]](#footnote-437)

Regulatory depreciation allowance is the net total of the straight-line depreciation (negative) and the annual inflation indexation (positive) on the projected capital base. The AER’s PTRM employs the straight-line method for calculating depreciation and the regulatory depreciation allowance is an output of the PTRM.[[438]](#footnote-438) The AER considers that the straight-line method satisfies the depreciation criteria.[[439]](#footnote-439) This is because the straight-line method smooths changes in the reference tariffs, promotes efficient growth of the market, allows assets to be depreciated only once and over its economic life, and allows for a service provider's reasonable needs for cash flow. Envestra has adopted the straight-line method set out in the AER’s PTRM for calculating its forecast depreciation. The AER therefore has assessed Envestra’s regulatory depreciation allowances by analysing Envestra’s proposed inputs to the PTRM for calculating depreciation. These inputs include:

* the opening capital base as at 1 January 2013
* the forecast net capex in the 2013–17 access arrangement period
* the forecast inflation rate for the 2013–17 access arrangement period
* the standard economic life for each asset class—used for calculating the depreciation of new assets associated with forecast net capex in the 2013–17 access arrangement period
* the remaining economic life for each asset class—used for calculating the depreciation of existing assets associated with the opening capital base as at 1 January 2013.

The AER’s determinations affecting the first three inputs in the above list are discussed elsewhere in this draft decision: opening capital base (attachment 2), forecast net capex (attachment 3) and forecast inflation (attachment 4). The AER's decision on the required amendments to Envestra’s proposed regulatory depreciation allowances reflects the AER’s determinations on these building block components. The AER’s assessment approach on the remaining two inputs in the above list is set out below.

In general, the AER considers that consistency in the standard economic life for each asset class across access arrangement periods will allow reference tariffs to vary smoothly over time. This will promote efficient growth in the market for reference services.[[440]](#footnote-440) The AER's standard method for determining the remaining economic lives is the weighted average method.[[441]](#footnote-441) The weighted average method rolls forward the remaining economic life for an asset class from the beginning of the earlier access arrangement period. This approach reflects the mix of assets within that asset class, when they were acquired over that period (or if they were existing assets at the beginning), and the remaining value of those assets (used as a weight) at the end of the period. The AER will assess the outcomes of other approaches against the outcomes of this standard approach.

* 1. Reasons for draft decision

The AER's draft decision on Envestra's regulatory depreciation allowances for the 2013–17 access arrangement period is:

* Envestra Victoria—$88.9 million ($nominal)
* Envestra Albury—$3.8 million ($nominal).

These allowances reflect changes to the remaining economic lives, as discussed below, and the AER's draft decisions on other components of Envestra's proposal that impact on the proposed regulatory depreciation allowances (discussed in the relevant attachments). The AER also requires the splitting of the 'Land & buildings' asset class for any future capex, as discussed below.

* + 1. Standard economic lives

With the exception of the 'Land & buildings' and the 'SCADA' asset classes, the AER approves Envestra's proposed standard economic lives assigned to its asset classes for the 2013–17 access arrangement period. The AER considers that these proposed standard economic lives are consistent with the ESC’s approved standard economic lives in the   
2008–12 access arrangement period.[[442]](#footnote-442) Envestra did not propose any new asset classes for the 2013–17 access arrangement period.

'Meters' asset class

The AER approves Envestra's proposal to reduce the standard economic life for the 'Meters' asset class from 20 years to 15 years to apply from 2013. In its proposal, Envestra stated that its proposed standard economic life for the 'Meters' asset class is consistent with:

* the range of service life for meters specified by the Australian Standard (AS 4944) called 'Gas Meters – In Service Compliance Testing'[[443]](#footnote-443)
* the AER's decision on the standard economic life associated with the 'Meters' asset class for Envestra's gas distribution networks in Queensland and South Australia.[[444]](#footnote-444)

Based on these reasons, the AER considers that the proposed standard economic life for the 'Meters' asset class is appropriate. The AER notes that Envestra's proposal is consistent with the NGR which states that the depreciation schedule should allow for adjustment reflecting changes in the economic life of the assets.[[445]](#footnote-445)

Further, the AER has modelled the impact associated with reducing the standard economic life of the 'Meters' asset class from 20 years to 15 year in the 2013–17 access arrangement period. The AER considers the impact from this change to be immaterial (at less than 0.1 per cent increase in revenue over the 2013–17 access arrangement period for either the Victorian or the Albury distribution businesses).

‘Land & buildings’ asset class

The AER considers that the ‘Land & buildings’ asset class should not be maintained as a single asset class in the opening capital base as at 1 January 2013 for depreciation purposes in the 2013–17 access arrangement period. However, consistent with the ESC's decision for rolling forward the capital base to 2012, the AER does approve Envestra's proposal to maintain the single 'Land & buildings' asset class up to the closing capital base for 2012. From 2013, due to land being a non-depreciable asset, the AER considers that the 'Land & buildings' asset class should then be split into two separate 'Land' and 'Buildings' asset classes.

In recent decisions, the AER has consistently separated land from other asset classes, and not assigned a standard economic life to land (assigned a term of 'n/a' for modelling purposes) in the capital base roll forward model (RFM) and the PTRM. [[446]](#footnote-446) This is because land is a non-depreciable asset under the Australian taxation law, and does not diminish in its useful life.[[447]](#footnote-447) The Income Tax Assessment Act (ITAA) 1997 excludes land from the definition of a ‘depreciating asset’.[[448]](#footnote-448)

For its Victorian distribution business, Envestra's proposed opening capital base as at 1 January 2013 contains an opening asset value of $8.8 million ($nominal) for the 'Land & buildings' asset class. However, for Envestra's Albury distribution business, there was no proposed opening asset value for the 'Land & buildings' asset class in the opening capital base as a result of it being fully depreciated. The AER sent an information request to Envestra to inquire about a possible split between land and buildings in the opening asset value as at 1 January 2013 for its Victorian distribution business.[[449]](#footnote-449) In response, Envestra stated that it did not have enough information that would allow a separation of land from the opening asset value of the ‘Land & buildings’ asset class.[[450]](#footnote-450) It submitted:

"The initial capital base (ICB) was established in 1997 by the Energy Projects Division (EPD) of the Department of Treasury and Finance and occurred while the network was still owned by the Victorian Government. A depreciation schedule (including deprecation on the “Land and Building” asset category) was also developed by EPD at this time. The valuation and depreciation information formed part of the 1998 to 2002 Access Arrangement submitted by the Victorian Government to the Office of the Regulator-General (ORG).

Envestra has reviewed all relevant documents in our possession. No information has been located to provide further detail on the proportion of the land (if any) included in the ICB. Moreover, it is noted that the ORG and the Essential Services Commission (ESC) continued to apply the depreciation schedule developed by the EPD in 1997 through the subsequent 2003 to 2007 and 2008 to 2012 Access Arrangement periods.

For the 2013 to 2017 Access Arrangement period, Envestra has continued the same approach to depreciating “Land and Buildings” as was earlier applied by the Victorian Government, the ORG and the ESC."

Based on Envestra's response, the AER considers that it is reasonable for Envestra to maintain ‘Land & buildings’ as a single asset class to roll forward the opening capital base to the end of 2012. However, the AER considers that separate asset classes should apply for the opening capital base at 1 January 2013 and for any future capex due to the different depreciation treatment applicable to land and buildings.

Neither Envestra nor the AER has sufficient information to accurately allocate the opening asset value for the 'Land & buildings' asset class from 2013 for the Victorian distribution business. For the purposes of maintaining consistency with the depreciation treatment of this expenditure by the ESC, the AER has allocated all of the opening asset value into the 'Buildings' asset class so it can continue to depreciate.

Although Envestra did not forecast any capex for the 'Land & buildings' asset class for either of its Victorian or Albury distribution businesses over the 2013–17 access arrangement period, the AER has split this asset class into two separate asset classes of 'Land' and 'Buildings'. The AER considers that:

* the 'Buildings' asset class should be assigned a standard economic life of 50 years (consistent with the standard economic life approved by the ESC for the 2008–12 access arrangement decision)
* the 'Land' asset class should not be assigned a standard economic life reflecting the   
  non-depreciating nature of the asset ('n/a' is assigned for modelling purposes in Envestra's PTRM).

‘SCADA’ asset class

The AER does not approve Envestra's proposed standard economic life of 10 years for the 'SCADA' asset class because it does not satisfy the NGR that require assets be depreciated over their economic lives.[[451]](#footnote-451) To satisfy the NGR, the AER considers that a standard economic life of 15 years is more appropriate.

The AER considers that the proposed standard economic life is too short, when compared to the standard economic lives for the 'SCADA' asset class approved in previous AER decisions.[[452]](#footnote-452) In those decisions, the AER considered that a standard economic life of 15 years to 20 years for 'SCADA' assets to be reasonable and consistent with the NGR.[[453]](#footnote-453)

The AER sent a request to Envestra seeking further information on its proposed standard economic life for the 'SCADA' asset class.[[454]](#footnote-454) In response, Envestra stated that it considered SCADA equipment is becoming more akin to the IT assets which have a standard economic life of 5 years. Envestra stated that as SCADA also consists of some engineering components, it considered its proposed standard economic life of 10 years for SCADA is appropriate.[[455]](#footnote-455)

Generally, the AER considers that SCADA assets can include IT assets which have shorter standard economic lives. However, the AER notes that the proposed capex for the ‘SCADA’ asset class is comprised of hardware-related components (such as the Remote Telemetry Units) which have longer standard economic lives.[[456]](#footnote-456) Therefore, the AER considers that the 'SCADA' asset class should have a standard economic life of 15 years, consistent with the requirements of the NGR.[[457]](#footnote-457)

The AER’s draft decision on Envestra's standard economic lives for each of its asset classes for the 2013–17 access arrangement period are set out in table 5.5 and Table 5.6.

* + 1. Remaining economic lives

The AER accepts Envestra's proposed weighted average method to calculate the remaining economic lives as at 1 January 2013. However, the AER has updated Envestra's remaining economic lives as at 1 January 2013 to reflect the AER's adjustments to Envestra's opening capital base roll forward (discussed in attachment 2).

The AER’s draft decision on Envestra's remaining economic lives for each of its asset classes for the 2013–17 access arrangement period are set out in table 5.5 and Table 5.6.

* + - * 1. AER's draft decision on Envestra Victoria's standard and remaining economic lives as at 1 January 2013 (years)

|  |  |  |
| --- | --- | --- |
| Asset classes | Standard economic life | Remaining economic life |
| Mains & services | 60 | 41.0 |
| Meters | 15 | 8.0 |
| Land | n/a | n/a |
| Buildings | 50 | 21.0 |
| SCADA | 15 | 7.9 |
| Computer equipment | 5 | 3.5 |
| Other assets | 15 | 11.0 |

Source: AER analysis.

n/a: Not applicable.

* + - * 1. AER's draft decision on Envestra Albury's standard and remaining economic lives as at 1 January 2013 (years)

|  |  |  |
| --- | --- | --- |
| Asset classes | Standard economic life | Remaining economic life |
| Mains & services | 60.0 | 37.4 |
| Meters | 15.0 | 8.0 |
| Land | n/a | n/a |
| Buildings | 50.0 | 0 |
| SCADA | 15.0 | 0 |
| Computer equipment | 5.0 | 0 |
| Other assets | 15.0 | 0 |
| Equity raising costs | 53.9a | n/a |

Source: AER analysis.

n/a: Not applicable.

(a) The AER's analysis in the PTRMs shows that only Envestra Albury will incur benchmark equity raising cost (see attachment 3). The AER has accepted Envestra's proposal to calculate the standard economic life for the ‘Equity raising costs’ asset class using a weighted average method. Under this method, the standard economic life is calculated by weighting the opening asset values of all the other asset classes in the opening capital base by their respective standard lives, and dividing by the sum of the total opening asset values as at 1 January 2013.

* 1. Revisions

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

Revision **5**.1: Make all necessary amendments to reflect the AER’s draft decision on the proposed forecast regulatory depreciation allowances for the 2013–17 access arrangement period, as set out in table 5.1 and table 5.2.

Revision **5**.2: Make all necessary amendments to reflect the AER’s draft decision on the standard economic lives and remaining economic lives as at 1 January 2013, as set out in table 5.5 and table 5.6.

1. Operating expenditure
   1. Draft decision
      1. Envestra Victoria

The AER's draft decision is to not approve a forecast of opex of $364.8 million ($2011) for the 2013–17 access arrangement period for Envestra Victoria. The AER is not satisfied that Envestra's forecast of opex for the 2013–17 access arrangement period reflects opex that complies with the opex criteria and the criteria for forecasts and estimates.[[458]](#footnote-458)

The AER instead considers forecast opex of $294.5 million ($2011) reflects a forecast of opex that complies with the criteria governing opex and the criteria for forecasts and estimates.[[459]](#footnote-459)

Figure 6.1 illustrates how the AER's draft decision for opex compares to Envestra's proposal for Envestra Victoria, its opex in the 2008–12 access arrangement period, and the opex approved by the Essential Services Commission (ESC) for this period.

* + - 1. Comparison of Envestra Victoria's historical and forecast opex, and AER draft decision ($million, 2011)



Source: Envestra Victoria regulatory accounts.

Note: Current period opex includes liabilities paid from provisions but excludes movements in provisions. figures from 2012 onwards are forecasts.

Table 6.1 compares the AER's draft decision to Envestra's proposal for Envestra Victoria for each year of the 2013–17 access arrangement period.

* + - * 1. Comparison of Envestra Victoria' proposal, and AER draft decision ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra's proposal | 63.8 | 71.8 | 75.4 | 76.0 | 77.8 | 364.8 |
| AER's draft decision | 57.5 | 58.2 | 58.9 | 59.6 | 60.3 | 294.5 |
| Difference | –6.3 | –13.6 | –16.5 | –16.4 | –17.5 | –70.3 |

Source: AER analysis.

* + 1. Envestra Albury

The AER's draft decision is to not approve a forecast of opex of $12.3 million ($2011) for the 2013–17 access arrangement period for Envestra Albury. The AER is not satisfied that Envestra's forecast opex for the 2013–17 access arrangement period reflects opex that complies with the opex criteria and the criteria for forecasts and estimates.[[460]](#footnote-460)

The AER instead considers forecast opex of $13.5 million reflects a forecast of opex that complies with the criteria governing opex and the criteria for forecasts and estimates.[[461]](#footnote-461) Envestra Albury accrued a negative carryover under the efficiency carryover mechanism largely due to liabilities paid from provisions in 2010 and 2011. The increased opex ensures Envestra Albury is not penalised twice.

Figure 6.2 illustrates how the AER's draft decision for opex compares to Envestra's Albury's proposal for the 2013–17 access arrangement period, its opex in the 2008–12 access arrangement period, and the opex approved by the ESC for this period.

* + - 1. Comparison of Envestra Albury's historical and forecast opex, and AER draft decision ($million, 2011)



Source: Envestra Albury regulatory accounts.

Note: Current period opex includes liabilities paid from provisions but excludes movements in provisions. Figures from 2012 onwards are forecasts.

Table 6.2 compares the AER's draft decision to Envestra's proposal for Envestra Albury for each year of the 2013–17 access arrangement period.

* + - * 1. Comparison of Envestra Albury's proposal, and AER draft decision ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra's proposal | 2.14 | 2.41 | 2.53 | 2.56 | 2.69 | 12.33 |
| AER's draft decision | 2.65 | 2.67 | 2.70 | 2.71 | 2.73 | 13.46 |
| Difference | 0.50 | 0.27 | 0.16 | 0.15 | 0.04 | 1.13 |

Source: AER analysis.

* 1. Envestra's proposals[[462]](#footnote-462)
     1. Summary

Envestra proposed total opex of $364.8 million ($2011) for the 2013–17 access arrangement period for Envestra Victoria, a 39.8 per cent real increase on actual expenditure in the 2008–12 access arrangement period.[[463]](#footnote-463)

Figure 1.3 disaggregates Envestra Victoria's proposals into six different cost categories:

* base year costs
* labour cost escalation
* network growth
* step changes
* Network Management Fee (NMF); and
* ancillary reference services (ARS)
  + - 1. Disaggregation of Envestra Victoria's proposal

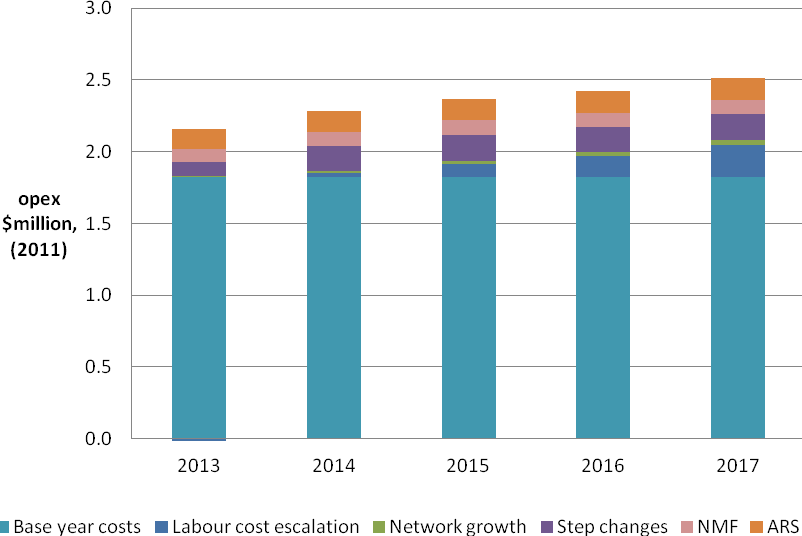


Source: AER analysis

Envestra proposed opex of $12.3 million ($2011) for the 2013–17 access arrangement period for Envestra Albury, a 43 per cent real increase on actual expenditure in the 2008–12 access arrangement period. [[464]](#footnote-464)

Figure 6.4 disaggregates Envestra Albury's proposals identically to Figure 6.3.

* + - 1. Disaggregation of Envestra Albury's proposal



Source: AER analysis.

A summary of Envestra's proposal is discussed further below.

* + 1. Forecasting methodology

Envestra forecast opex for haulage reference services for both Envestra Victoria and Envestra Albury using a base year roll forward method.[[465]](#footnote-465) This method uses actual expenditure in a base year as an indication of future expenditure because operating and maintenance costs are largely recurrent. Base year opex is then adjusted to account for changes in the service provider's circumstances that are forecast to affect opex over the 2013–17 access arrangement period. These adjustments include:

* removing non-recurrent costs from actual expenditure in the base year;
* escalating forecast increases in the size of the network ('network growth');
* adding changes for forecast costs not reflected in the base opex, such as costs due to changes in regulatory obligations and the external operating environment ('step changes'); and
* escalating for forecast real cost changes for labour and materials ('real cost escalation').
  + 1. Base year

Envestra chose 2011 as the opex base year, being the most recent full financial year for which actual data is available.[[466]](#footnote-466)

To estimate base year opex Envestra estimated expenditure of $52.4 million for Envestra Victoria[[467]](#footnote-467) and $1.9 million for Envestra Albury for 2011 and subtracted opex incurred in 2011 that it considered is not representative of forecast opex in the 2013–17 access arrangement period.

* + - * 1. Base year adjustments proposed by Envestra Victoria ($million, 2011)

|  |  |
| --- | --- |
| Opex item | opex |
| Unadjusted 2011 opex | 52.4 |
| Network Management Fee and incentive payments | –3.4 |
| Network development costs | –2.4 |
| Base year opex | 46.6 |

Sources: Envestra Victoria's access arrangement proposal.[[468]](#footnote-468)

* + - * 1. Base year adjustments proposed by Envestra Albury ($million, 2011)

|  |  |
| --- | --- |
| Opex item | opex |
| Unadjusted 2011 opex | 1.9 |
| Network Management Fee | –0.1 |
| Network development costs | –0.1 |
| Base year opex | 1.7 |

Sources: Envestra Albury's access arrangement proposal.[[469]](#footnote-469)

* + 1. Network growth

Envestra forecast additional opex of $3.6 million ($2011) for Envestra Victoria and $0.1 million ($2011) for Envestra Albury to connect new customers to its existing networks. Envestra forecast it would connect, on average, 12 000 net new volume customers to Envestra Victoria and 400 to Envestra Albury in each year of the 2013–17 access arrangement period. The proposed incremental cost primarily includes meter reading, data processing and billing.[[470]](#footnote-470)

* + 1. Step changes

Envestra proposed nineteen step changes equal to $35.1 million of opex ($2011)[[471]](#footnote-471) for Envestra Victoria and eleven step changes equal to $0.8 million ($2011) for Envestra Albury. Envestra classified the step changes according to whether it considered the opex is associated with the delivery of a capital project, a cost that arises from a one-off project or a cost that represents a permanent change in opex.

As discussed in attachment 3 the AER considers that Envestra's proposed expenditure on Easement Vegetation Management is not capital in nature and should be treated and assessed as opex.[[472]](#footnote-472) Accordingly the AER has considered whether this vegetation management program amounts to a step change in Envestra's operating expenditure.

* + - * 1. Proposed step changes by Envestra Victoria ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Opex related to capex | – | 0.7 | 0.7 | 1.4 | 1.5 | 4.3 |
| One-off opex projects | 0.8 | 1 | 0.9 | 0.4 | 0.4 | 3.6 |
| Permanent step changes[[473]](#footnote-473) | 4.1 | 5.6 | 5.7 | 5.8 | 5.8 | 27.1 |
| Total | 4.9 | 7.4 | 7.4 | 7.6 | 7.8 | 35.1 |

Sources: Envestra Victoria's access arrangement proposal.[[474]](#footnote-474)

* + - * 1. Proposed step changes by Envestra Albury ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Opex related to capex | – | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| One-off opex projects | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Permanent step changes | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.6 |
| Total | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.8 |

Sources: Envestra Albury's access arrangement proposal.[[475]](#footnote-475)

* + 1. Real cost escalation

After adding forecast non base-year opex Envestra escalated its forecast opex for expected real increases in labour and materials costs forecast by BIS Shrapnel.[[476]](#footnote-476) Envestra applied BIS Shrapnel's electricity, gas, and water, general labour, network materials, and general materials escalators.[[477]](#footnote-477) Envestra forecast real labour cost increases of $24.6 million ($2011), and materials cost escalation of $11.2 million for Envestra Victoria. [[478]](#footnote-478) It forecast real labour cost increases of $0.6 million ($2011) and materials cost escalation of $0.5 million for Envestra Albury.[[479]](#footnote-479)

* + 1. Other adjustments to forecast opex

Other adjustments to forecast opex include the costs which Envestra incurred in the 2008–12 access arrangement period but were not included in its base year estimate (Network Management Fee (NMF), incentive payments and network development costs) the costs which are not forecast using a base year roll forward method (ancillary reference services).

* + - * 1. Other forecast opex by Envestra Victoria ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Network Management Fee | 2.8 | 3.1 | 3.2 | 3.4 | 3.7 | 16.1 |
| Incentive payments | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 3.0 |
| Network development costs | 3.2 | 3.2 | 3.6 | 3.5 | 3.7 | 17.2 |
| Ancillary reference services | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 11.7 |
| Total | 8.8 | 9.2 | 9.8 | 9.9 | 10.4 | 48.1 |

Sources: Envestra Victoria access arrangement proposal.[[480]](#footnote-480)

* + - * 1. Other forecast opex by Envestra Albury ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Network Management Fee | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 |
| Network development costs | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.6 |
| Ancillary reference services | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.7 |
| Total | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 1.8 |

Sources: Envestra Albury access arrangement proposal.[[481]](#footnote-481)

* 1. Submissions

The Energy Users Coalition of Victoria (EUCV) provided a submission setting out its concerns regarding the Victorian Distribution businesses' proposals.

The EUCV does not consider that Envestra's opex claim is sustainable but notes that because much of the information is confidential, its assessment is limited to an assessment of the information Envestra made public.[[482]](#footnote-482) It also notes that a number of step changes are related to safety but are not the result of changes in legislation. It considers the costs of meeting these requirements are already embedded in base year opex.[[483]](#footnote-483)

The EUCV also provided some specific comments on elements of Envestra's opex proposal[[484]](#footnote-484) The AER's consideration of specific comments made by the EUCV are discussed in the relevant section of this chapter.

* 1. Assessment approach

The AER has limited discretion in assessing opex.[[485]](#footnote-485) The AER is required to assess Envestra's forecast opex to decide whether it is satisfied the forecast opex complies with applicable criteria prescribed by the NGL and NGR.[[486]](#footnote-486) The AER must approve each element of Envestra’s proposed opex if satisfied it complies with, and is consistent with, the criteria prescribed in the NGL and NGR.

The AER assessed Envestra’s proposed opex against the criteria governing opex established by r. 91 of the NGR, taking into account the forecasts and estimates criteria established by r. 74 of the NGR: [[487]](#footnote-487)

91 Criteria governing operating expenditure

(1) Operating expenditure must be such as 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.

(2) The AER’s discretion under this rule is limited.

74 Forecasts and estimates

(1) Information in the nature of a forecast or estimate must be supported by a statement of the basis of the forecast or estimate.

(2) A forecast or estimate:

(a) must be arrived at on a reasonable basis; and

(b) must represent the best forecast or estimate possible in the circumstances.

The AER has amended Envestra’s proposal to conform with rr. 74 and 91 of the NGR.

More generally, the AER has also compared historical expenditure to forecast expenditure to better understand the key drivers behind Envestra’s proposed forecast.

The AER has also taken into consideration any benchmarking studies provided. Envestra has submitted benchmarking reports, from NERA and Economic insights, to support its forecast operating costs. Benchmarking studies of this nature are valuable inputs to the forecasting process. However the assumptions that underlie such studies are subjective and therefore have only been used as a supplement to other analyses.

In forming its views the AER has also considered advice from its commissioned consultants, namely, Deloitte Access Economics (DAE) on labour cost escalators.

* 1. Reasons for decision

The AER's draft decision is not to accept Envestra's forecast opex for Envestra Victoria and Envestra Albury.

The AER considers that several elements of Envestra's proposals do not comply with opex criteria or the criteria for forecasts and estimates.[[488]](#footnote-488)

Discussion of the AER's reasoning is presented under the following headings:

* forecasting base year opex
* network growth
* step changes
* escalation of base year opex
* other adjustments
* debt raising costs and liquidity costs[[489]](#footnote-489)

Figure 6.5 and figure 6.6 disaggregate the AER's draft decision on opex for Envestra Victoria and Envestra Albury into different cost categories.

* + - 1. Disaggregation of AER draft decision on Envestra Victoria's opex



Source: AER analysis.

* + - 1. Disaggregation of AER draft decision on Envestra Albury's opex



Source: AER analysis.

* + 1. Forecasting base year

Envestra has proposed a base year of 2011 for Envestra Victoria and Envestra Albury. The AER agrees that a forecast of opex based on actual expenditure in 2011 would lead to the best estimate of opex possible in the circumstances.

The AER's considers a forecast using a base year of 2011 to be appropriate for the following reasons:

* As many opex items are of a recurrent nature, actual costs incurred in 2011 are likely be a good indicator for the efficient costs to be incurred in the 2013–17 access arrangement period.
* In the 2008–12 access arrangement period, Envestra Victoria and Envestra Albury were both subject to an opex efficiency carryover mechanism (ECM). Under the ECM any rewards (or penalties) for opex 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. The AER considers that the opex ECM that applies to both Envestra Victoria and Envestra Albury would have provided incentives for Envestra to perform efficiently in the 2008–12 access arrangement period.

Adjustments to base year costs

The AER has set its base year estimate on the basis of actual 2011 costs incurred by Envestra. There are some minor differences from Envestra's base year estimate which reflect differences between the actual opex reported in Envestra's regulatory accounts and the opex forecast in Envestra's access arrangement proposal.

In forming its base year estimate the AER has also made adjustments to the costs incurred by Envestra in 2011 to remove movement in provisions and licence fees to ensure forecast opex complies with r. 74 of the NGR.

The AER has not removed network development expenditure from its base year estimate.

The consideration of these issues is set out below.

Licence fees

Envestra Victoria did not remove licence fees from its base year estimate for Envestra Victoria. As forecast licence fees are recovered through the price control mechanism it would be double counting if these costs are included in a base year estimate. The AER's base year estimate is $0.1 million lower than Envestra's by correcting this error.

Movement in provisions

A provision is a liability of uncertain timing or amount.[[490]](#footnote-490) Provision accounts are used to set aside amounts for the payments of these liabilities for when they arise for settlement. A movement in provisions occurs when the amount set aside differs to the amount paid out. The AER considers the movement in these provisions does not represent actual costs incurred in a given year and should be removed from base year expenditure. The AER considers this necessary in setting forecast opex for Envestra, on the basis that movements in provisions:

* may be used to represent the reported accounts for Envestra differently from its underlying economic circumstances
* may prevent and distort the comparison of Envestra's expenditure on a consistent basis from year to year
* can be affected by a change in accounting standards despite expenditure remaining unchanged.

Based on the above, the AER considers removing the movement in provisions is a reasonable basis for forecasting opex and will produce the best opex forecast possible in the circumstances.[[491]](#footnote-491)

Envestra's opex forecast for Envestra Victoria included movements in provisions. That is, its opex forecast was based on actual expenditure in 2011 as reported in its regulatory accounts. It was not adjusted to account for the small movement in provisions that occurred in 2011. For Envestra Albury it removed the increase in provisions charged to profit from the opex reported in its regulatory accounts for 2011. Thus it effectively forecast no expenses in the 2013–17 access arrangement period for liabilities paid from provision accounts.

The AER notes in calculating the carryover of efficiency gains and losses accrued under the opex incentive mechanism it removed the movement in provisions from Envestra's actual opex in accordance with attachment 7. To ensure Envestra Albury is not penalised twice for the increase in liabilities paid from provisions in 2011 the AER considers base opex should be treated the same. That is, base opex should reflect the liabilities paid from provisions in the base year. Doing so increased Envestra Albury's opex forecast by $2.7 million ($2011). Had the AER determined the negative carryover accrued by Envestra Albury in the 2008–12 access arrangement period should not be applied, it would not have adjusted its base year expenditure to include liabilities paid from provisions since these liabilities do not represent recurrent expenditure.

Network development expenditure

Envestra proposed to remove network development costs from the 2011 base year.[[492]](#footnote-492) Envestra considers that a base year roll forward model is not appropriate for forecasting network development expenditure. Instead Envestra developed a separate forecast of its network development costs.

The AER considers the correct operation of the efficiency carry over mechanism requires the base year for determining opex for the 2013–17 access arrangement period to be consistent with the actual opex used to calculate any carryovers arising from the efficiency sharing mechanism. If this is not the case, Envestra may not retain the gains from efficiency saving initiatives for five years. Because network development expenditure was included in both the actual and forecast opex, for the purposes of calculating the ECM, the AER does not consider it appropriate to remove this expenditure from the 2011 base year for the purpose of forecasting Envestra's 2013–17 opex allowance.

Unaccounted for Gas (UAFG)

Unaccounted for gas (UAFG) refers to the difference between the measured quantity of gas entering the gas distribution system and the gas billed to customers. UAFG can arise because of metering errors; theft; inaccuracy in the conversion from quantity of gas measured to energy (reflecting discrepancies in temperature, pressure, heating value, altitude or the gas compressibility factor); and leakage.

Envestra’s 2008–12 access arrangement includes an incentive mechanism in relation to UAFG, which encourages Multinet to reduce UAFG below a pre-determined benchmark set by the ESC in accordance with r. 317 of the NGR. Rule 317 is a provision in Part 19 of the NGR. Part 19 contains rules applicable to the operation of a declared distribution system. The Victorian gas distribution system is a declared distribution system. Accordingly, r. 317 regulates unaccounted for gas in that system.

Envestra submitted that Envestra assumes the current arrangement will continue and so no amounts are included in the forecast opex for UAFG in the 2013–17 access arrangement period.[[493]](#footnote-493) Further Envestra proposed benchmark levels for UAFG, based on the actual level of UAFG in 2012, for the 2013–17 access arrangement period.[[494]](#footnote-494)

Under r. 317 of the NGR AEMO must make procedures that require AEMO to calculate gas unaccounted for in a declared distribution system and to determine payments to be made between a Retailer and a Distributor for that gas. Under AEMO’s Procedures,[[495]](#footnote-495) AEMO calculates unaccounted for gas and such payments by reference to benchmarks set by the ESC. The UAFG benchmarks set by the ESC are contained in schedule 1 of the Victorian Gas Distribution System Code.

The Victorian Gas Distribution System Code only provides for the setting of UAFG benchmarks by the ESC up to 2012.[[496]](#footnote-496) There is no provision for benchmarks to be set beyond this date by the ESC. There is no statutory power permitting the AER to set benchmarks.

In summary, UAFG is regulated under Part 19 of the NGR by AEMO and the current AEMO Procedures refer only to benchmarks set under the Gas Distribution System Code. The AER cannot set the benchmarks. As a result, the AER does not accept Envestra’s proposal.

The AER notes Envestra did not propose a forecast opex amount for UAFG in the 2013–17 access arrangement period. The AER considers the Procedures under r. 317 of the NGR regulate unaccounted for gas and unaccounted for gas payments. As such any payments made under that mechanism should not be included in Envestra’s opex forecast.

* + 1. Network growth

Envestra stated that it will incur additional opex as the number of customers on the network increases. It forecast it would connect, on average, 12 000 net new volume customers to the network in each year of the 2013–17 access arrangement period. Envestra stated new customer connections would increase costs including for meter reading, data processing and billing.[[497]](#footnote-497)

The Victorian Gas Distribution Code sets a benchmark incremental cost per new customer connection to be used in the economic feasibility test to determine whether a customer contribution is required.[[498]](#footnote-498) Envestra used this benchmark rate of $19.90 ($2011) to forecast the incremental cost associated with new customer connections.[[499]](#footnote-499)

The AER considers a prudent service provider acting efficiently, in accordance with accepted good industry practice, would require an increase in expenditure to account for network growth. It considers Envestra's forecast expenditure for incremental growth was arrived at on a reasonable basis and represents the best forecast possible in the circumstances and delivers a total opex forecast consistent with achieving the lowest sustainable cost of delivering pipeline services.[[500]](#footnote-500)

However, the AER considers Envestra's proposed customer number forecasts were not arrived at on a reasonable basis and do not represent the best forecasts possible in the circumstances (see attachment 9). Consequently the AER considers Envestra's proposed opex for network growth should be adjusted to reflect the AER's draft decision on customer numbers.

* + 1. Step changes

As discussed in section 6.2.5 Envestra proposed an increase in expenditure for Envestra Victoria and Envestra Albury in relation to expenditure it considers is not reflected in the base year.

The AER has reviewed Envestra's proposed step changes against r. 91 of the NGR. The AER's review has considered whether the proposed program of expenditure is consistent with r. 91 of the NGR; and whether an incremental increase above APA GasNet's base year opex is consistent with rr. 91 and 74 of the NGR.

Where the AER considers these step changes are consistent with r. 91 of the NGR, an incremental increase in base year opex that the AER considers is consistent with rr. 91 and 74 of the NGR is included in the total forecast opex.

In general the AER considers an increase in opex is not consistent with r. 91 of the NGR where the additional expenditure is intended to address a regulatory requirement or industry standard that has not changed since the 2008–12 access arrangement period. The AER considers that an increase in opex to implement an existing regulatory requirement may provide an incentive for service providers to spend less than required in meeting such requirements or standards. The AER considers this practice is not consistent with a prudent service provider acting efficiently in accordance with accepted good industry practice to achieve the lowest sustainable cost of delivering pipeline services.

In some cases, the AER considers that expenditure may be consistent with the requirements governing opex under r. 91 of the NGR but it considers that an incremental increase in the total opex allowance would not be consistent with rr. 74 or 91 of the NGR. For instance, if expenditure is intended to improve productivity, the AER would generally consider, unless circumstances indicate otherwise, that there is sufficient expenditure in base year opex in order to fund the program.

The AER's assessment of proposed step changes also recognises that the opex carried out by a service provider will not be exactly the same from year to year. For instance actual opex in the base year reflects both recurrent expenditure and non-recurrent expenditure. However, when forecasting opex for the 2013–17 access arrangement period the AER has not sought to estimate all non-recurrent expenditure incurred in the base year. Therefore to ensure a forecast of total opex that is consistent with r. 74 of the NGR, the AER also does not automatically consider there should be an incremental opex because the expenditure was not incurred in the base year but needs to be incurred in the 2013–17 access arrangement period. Instead the AER considers on case by case basis whether base year opex would be likely to be sufficient in order to fund the proposed program of opex or whether an incremental increase in opex is required.

A comparison between the step changes proposed by Envestra and the AER's draft decision is below in table 6.9 and table 6.10.

* + - * 1. Envestra Victoria - proposal and AER draft decision ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra's proposal | 5.9 | 8.6 | 9.1 | 9.4 | 9.7 | 42.7 |
| AER's draft decision | 1.2 | 1.3 | 1.3 | 1.5 | 1.5 | 6.7 |
| Difference | –4.7 | –7.3 | –7.8 | –7.9 | –8.2 | –35.9 |

Source: AER analysis.

Note: Envestra proposal includes network development expenditure above base year expenditure, insurances and is corrected for errors. Consequently it does not reconcile with table 6.3 of Envestra's access arrangement information.

* + - * 1. Envestra Albury - proposal and AER draft decision ($million, 2011)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra's proposal | 0.10 | 0.17 | 0.18 | 0.17 | 0.18 | 0.81 |
| AER's draft decision | 0.04 | 0.05 | 0.05 | 0.05 | 0.05 | 0.23 |
| Difference | –0.05 | –0.12 | –0.14 | –0.13 | –0.13 | –0.57 |

Source: AER analysis.

The following sections discuss the AER's draft decision in relation to each proposed step change.

Opex related to capex

Envestra proposed five step changes for Envestra Victoria where the proposed opex was related to proposed capex. Projects classified as opex related to capex include:

* Regional SCADA
* Extensions to new towns
* Knowledge management
* IT–Road Map Initiative

Envestra forecast increased opex for Envestra Albury for all of the above projects except for extensions to new towns.

As discussed in attachment 3, the AER has approved the installation of SCADA capability in regional locations. The AER is satisfied that this improved capability would reduce the risks in responding to an emergency and an increase in opex would be required to give effect to an increased capability. The AER is satisfied that the incremental increase in opex proposed by Envestra to fund this proposal is consistent with rr. 91 and 74 of the NGR.

However, the AER's draft decision is not to increase opex for the extensions to new towns, knowledge management and the IT–Road Map Initiative proposals.

The AER's draft decision is not to approve the capex component for the extensions to new towns and the knowledge management proposals (see attachment 3). Therefore the AER is not satisfied an increase in opex would meet r. 91 of the NGR requirements.

While the AER has approved the capex component of the IT–Road Map Initiative, the AER is not satisfied that Envestra would incur an incremental increase in total opex from implementation of this project. Therefore the AER is not satisfied that an increase in opex related to the IT–Road Map initiative would lead to a forecast of total opex that has been arrived at on a reasonable basis or is the best forecast possible in the circumstances. As such, the AER does not consider a forecast of opex that includes a step change in opex for the IT–Road Map initiative would be a forecast of 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.[[501]](#footnote-501)

The AER accepts that at the project level Envestra will incur opex in implementing the IT–Road Map Initiative. However, by replacing or upgrading existing systems, the IT Road Map Initiative intends to improve Envestra's productivity. The AER expects that there will be both productivity gains and cost savings across Envestra from implementation of new IT systems. For this reason the AER does not consider an incremental increase in total opex above base year opex is consistent with rr. 74 or 91 of the NGR.

One-off opex projects

Envestra has proposed five step changes for Envestra Victoria to opex for one-off opex projects. Projects classified as one-off opex projects include:

* holes in meter boxes
* pipeline integrity remediation works
* pipe saddle support repairs
* gas pipes in drains
* pipeline signage replacement

Of these projects, Envestra proposed increased opex for Envestra Albury for proposed pipeline integrity remediation works and pipeline signage replacement.

A discussion of each project and the AER's draft decision is discussed below.

Holes in meter boxes

This project seeks to address a safety concern in relation to gas meter wall boxes installed in Envestra Victoria. Envestra consider there is a risk that with certain gas meter wall boxes gas could flow into the wall cavity and roof space of a building, creating a risk of fire or explosion. Envestra has proposed systematic inspection and rectification of certain installations to address this issue. It estimates that only 1 per cent of the total meter installations in Victoria are affected.[[502]](#footnote-502)

The AER's draft decision is not to increase opex to fund this program. It is not satisfied that an increase in opex to rectify holes in meter boxes would be 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.[[503]](#footnote-503)

Envestra is required to ensure meter boxes comply with the Australian gas installation Standard AS 5601. Therefore if Envestra needs to undertake a program to rectify holes in meter boxes it would imply that Envestra is not currently compliant with the Australian standard. The AER considers that if Envestra was acting in accordance with good industry practice, it would have already taken measures to address this issue. The AER does not consider it would promote accepted good industry practice to provide additional funding for Envestra to comply with an industry standard with which Envestra should already be compliant.

Pipeline integrity remediation works

Envestra owns 22 transmission pipelines across Victoria and southern NSW. Envestra plans to gather additional data on the integrity of the pipelines to confirm the design life and whether further information is required about the structural integrity of the pipelines (e.g inline inspections). Envestra has proposed expenditure for Envestra Victoria and Envestra Albury to implement this program.[[504]](#footnote-504)

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 of the NGR.

Under the Australian pipeline standard AS 2885.3 where it intends to operate a pipeline beyond its nominated design life then, prior to the expiry of the design life, Envestra must review the operating conditions and history of the pipeline, to determine its condition and any limits for continued operation. The AER agrees that due to the estimated age of Envestra’s transmission pipelines, it is a prudent business decision for Envestra to begin reviewing the design and operating conditions of its pipelines. It agrees with Envestra that additional opex of the amount proposed by Envestra is required.

Pipe saddle support repairs

Pipework saddle supports are used as supporting structures for various gas pipework and valves. Envestra plans to carry out a repair/rectification program for approximately 430 pipework saddle supports installed in Envestra Victoria to eliminate contact areas susceptible to corrosion.[[505]](#footnote-505)

The AER's draft decision is not to increase opex to fund this program. It is not satisfied that an increase in opex for pipe saddle support repairs would be 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.[[506]](#footnote-506)

The AER accepts that in many cases, it may be a prudent business decision to treat corrosion in pipelines. However, pipelines must be inspected regularly in accordance with AS 2885.3. This standard also requires a licensee to take appropriate remedial action after an inspection identifies pipeline coating integrity which has been affected. Corrective action may include repair and renewal. The AER considers that corrosion in pipelines would be identified at the time of these regular inspections. The AER expects that if issues with pipe saddle supports were significant, a prudent service provider acting efficiently in accordance with good industry practice to achieve the lowest sustainable cost of delivering pipeline services would address corrosion in pipelines accordingly after such an inspection.

The AER also notes that some maintenance activities undertaken by a service provider are non-recurrent. Therefore the AER considers that Envestra's actual opex in 2011 is likely to include expenditure on some activities that may have been efficient in 2011 but do not need to be undertaken in the 2013–17 access arrangement period. Even if the AER agreed that an increase in pipe saddle support repairs was warranted in the 2013–17 access arrangement period, as there is likely to be some maintenance expenditure incurred in 2011 that was not recurrent expenditure, the AER is not satisfied that Envestra’s base year opex does not already provide sufficient funding for this incremental increase in non-recurrent opex. Therefore the AER is also not satisfied that a forecast of opex that has been increased to reflect increased expenditure for pipe saddle support repairs is a forecast of total opex that has been arrived at on a reasonable basis or is the best forecast possible in the circumstances.[[507]](#footnote-507)

Gas pipes in drains

The aim of this project is to minimise the risks from gas pipes installed in Envestra Victoria that have been laid through stormwater drains and sewers. Envestra state that there is a risk of explosion or fire where pipes have been laid through stormwater drains and sewers. It proposes to address this risk by training operators in the use of specialised equipment for internal pipe inspections and the targeted inspections of pipes, stormwater drains and sewers identified as a safety risk.[[508]](#footnote-508)

The AER's draft decision is not to increase opex to fund this program. It is not satisfied that an increase in opex to address the risks associated with gas pipes in drains would be 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.[[509]](#footnote-509)

Envestra's opex for this proposal seeks to improve training of its staff to undertake investigations, inspect gas pipes to identify gas pipes inadvertently installed in drains, and undertake works to address any issues. While the AER recognises that a prudent service provider would need to undertake opex to reduce safety risks to an acceptable level, the AER is not satisfied that the opex for this program satisfies r. 91 of the NGR. The AER considers that if the risks associated with gas pipes installed in drains are material, a prudent service provider 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. It does not consider 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 be in accordance with good industry practice.

Pipeline signage replacement

Pipeline markers are intended to alert people who are planning to work near a pipeline. Envestra has proposed expenditure to replace existing pipeline markers installed in Envestra Victoria and Envestra Albury to comply with the relevant Australian pipeline standard AS 2885.1.[[510]](#footnote-510)

The AER’s draft decision is not to increase opex to fund this program. The AER is not satisfied that the replacement of all existing pipeline markers in the 2013–17 access arrangement period would be 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.[[511]](#footnote-511)

Envestra’s proposal is to replace all existing transmission pipeline markers. However, the Australian standard AS 2885.1 does not require these markers to be replaced. It only requires new transmission pipeline markers to conform to a new standard.

The AER considers that Envestra would only require an incremental increase in its total opex to undertake this project if there is persuasive evidence suggesting that Envestra's existing transmission markers need to be replaced—for instance if there is a new regulatory requirement that requires Envestra to replace its transmission markers. As the regulatory requirements in relation to existing transmission pipeline markers have not changed, and the AER is not aware of any persuasive evidence that demonstrates that Envestra’s existing transmission pipeline markers fail to provide a sufficient warning to prevent such interference, the AER is not satisfied that an incremental increase in opex to fund this program is required. The AER therefore is not satisfied that an increase in opex to replace existing transmission markers in the 2013–17 access arrangement period would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice based on the applicable standard to achieve the lowest sustainable cost of delivering pipeline services.

Permanent changes in opex

Envestra has proposed ten step changes for Envestra Victoria for permanent changes in opex. Projects classified as permanent changes in opex include:

* Cost of carbon
* Network monitoring and control
* Technical training
* Meter station charges
* Interval meter data management
* Graphical information system analyst
* Increased maintenance rates
* Increase in insurance costs
* Change in regulatory policy - reactive mains replacement
* National Energy Customer Framework

Envestra has also proposed increases in opex for Envestra Albury for six of the above projects. Forecast opex for Envestra Albury's is not affected by cost of carbon, meter station charges, increase in insurance costs or the proposed change in regulatory policy.

A discussion of each project and the AER's draft decision is discussed below.

Cost of carbon

Envestra is now liable to purchase carbon credits to cover the fugitive emissions, calculated under the National Greenhouse Emissions Reporting Scheme framework. Envestra submitted that the costs of administering this program should be included in Envestra Victoria's opex allowance.[[512]](#footnote-512)

The AER accepts that administering the carbon scheme represents a step change in Envestra Victoria's opex as this expenditure was not incurred in the 2011 base year. The AER accepts that the level of expenditure proposed by Envestra 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.[[513]](#footnote-513)

In reaching this decision the AER has compared Envestra's proposed costs against the administration costs approved in Envestra's pass through application (see below) of $95,000 for the six month period of 1 July 2012 to 31 December 2012.[[514]](#footnote-514) Envestra's proposed annual costs for the 2013–17 access arrangement period range from $50,000 up to $100,000 (after the introduction of carbon trading). The AER considers that Envestra's proposal is consistent with its pass through application and the additional cost Envestra forecasts to incur for the 2013–17 access arrangement period.

Interaction with Envestra's pass through application

The AER previously approved a pass through application in respect to carbon costs for Envestra. This pass through application covered the period 1 July 2012 to 31 December 2012. In this pass through application the AER approved total additional operating costs of $95,000.[[515]](#footnote-515) In accepting this forecast the AER noted that:

To mitigate any risk that the administrative costs proposed by Envestra are not incurred within the pass through period, but deferred to the next access arrangement period, the AER will have regard to the pass through amount when considering carbon pricing related administrative costs proposed by Envestra for the 2013–2017 access arrangement period. This will avoid any double counting of allowed costs to be recovered from customers.

The AER notes that Envestra did not specifically state whether it is seeking to recover one-off start-up costs in its pass through application. However the amount proposed in its access arrangement proposal is lower than in the pass through application indicating that Envestra has not included costs of this nature in its access arrangement proposal. As such, the AER considers that Envestra has proposed an increase costs in the 2013–17 access arrangement period for which it has not previously been funded.

Network monitoring and control

Envestra proposes to engage a contractor to provide a network pressure surveillance capability to facilitate immediate responses and appropriate actions to any SCADA pressure alarms. Envestra considers this would increase the quality, safety and reliability of services provided in response to an alarm, or in an emergency situation. Envestra propose an increase in opex for both Envestra Victoria and Envestra Albury to implement this project.[[516]](#footnote-516)

The AER's draft decision is not to increase opex to fund this program. It is not satisfied that an increase in opex to implement this project would be 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.[[517]](#footnote-517)

Currently, the AER understands that Envestra's contractor, APA Group, is responsible for responding to SCADA initiated alarms. Outside of business hours the supervising officer responds to a paging system and logs on to a computer to investigate any alarms and determine the appropriate response.[[518]](#footnote-518) Envestra's proposal, if implemented, would change the means by which the supervising officer is informed about SCADA pressure alarms outside of business hours. The AER is not satisfied that the means by which the supervising officer is currently informed about any SCADA pressure alarms is inadequate or that employing another contractor to notify the supervising officer of SCADA pressure alarms would materially improve the quality, safety and reliability of its response in an emergency. As such, the AER considers that an increase in opex to fund this program is not consistent with r. 91 of the NGR.

Technical training

Envestra proposed a step change 'for the development of interactive online computer based training packages and e-courses to enhance learning and development of skills' for both Envestra Victoria and Envestra Albury.[[519]](#footnote-519)

In its submission the EUCV argued that training is not a step change as it should result in reduced opex because staff are better equipped to carry out their tasks.[[520]](#footnote-520)

The AER is not satisfied that a step change for technical training would lead to a forecast of total opex that has been arrived at on a reasonable basis or is the best forecast possible in the circumstances.[[521]](#footnote-521) As such, the AER considers a forecast of opex that includes a step change in opex for technical training would not be a forecast of 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.[[522]](#footnote-522)

The AER accepts at a project level, it may be prudent for Envestra to incur additional opex for technical training. However, similar to views expressed by the EUCV, the AER considers the purpose of technical training is to improve the skills of its staff. The AER considers that improving the skills of Envestra's staff would be likely to deliver productivity improvements. Therefore the AER considers that an incremental increase in opex to fund technical training is not consistent with rr.74 or 91 of the NGR.

Meter station charges

Envestra pays APA GasNet for the operation of custody transfer meters (CTMs) at injection points to its network. Envestra are forecasting an increase in opex for Envestra Victoria due to charges for four new meter stations and increased charges relating to upgrades of four existing stations.

The AER is satisfied that Envestra will incur an increase in opex in relation to new meter stations and upgrades of existing stations.

However the AER does not consider that the entire proposed increase in expenditure by Envestra satisfies the opex criteria. The AER's draft decision is a 41 per cent reduction in the opex for meter station charges proposed by Envestra.

The AER's draft decision reflects the following findings:

* The AER has not approved the capex for the augmentation of the Dandenong to Crib Point network. As a result the AER does not consider charges for a new CTM at Dandenong would be consistent with r. 91 of the NGR.
* APA GasNet's current expectations of the planned upgrades are outlined in its metering strategy plan.[[523]](#footnote-523) Based on information in this document, the AER is not satisfied that an upgrade of one meter station is consistent with APA GasNet's plans.[[524]](#footnote-524) Therefore the AER is not satisfied that an increase in CTM charges related to this upgrade is consistent with r. 91 of the NGR.
* Based on information provided by APA GasNet about the forecast capital cost of meter station upgrades, the AER is not satisfied that the forecast increase in CTM charges associated with three meter station upgrades is, in accordance with r. 74(2)(b) of the NGR, the best estimate possible in the circumstances. The AER has forecast the annual CTM charges to be paid by Envestra for these upgrades at fifteen per cent of APA GasNet's forecast capital cost of these upgrades.

Interval meter data management

Envestra has proposed an increase in opex for Envestra Albury and Envestra Victoria for monthly meter reading of large customer sites and for management of that data. Envestra state that the work was previously undertaken by AEMO and will now be undertaken by Envestra due to a change in AEMO’s practices. This proposed step change has two components:

1. an increase in opex associated with monthly meter reading of large customer sites
2. an increase in opex related to a new system for managing metering data from large customer sites

The AER is satisfied that Envestra will incur an increase in opex in relation to increased costs related to monthly meter reading at large customer sites.

However the AER does not consider that the entire proposed increase in manual meter reading by Envestra to be the best forecast of opex in the circumstances.[[525]](#footnote-525) The AER's draft decision is a 25 per cent reduction in the opex for monthly meter reading proposed by Envestra.

The AER also does approve an increase in opex to fund increased opex for managing metered data. The AER is not satisfied that an increase in opex to fund this program is opex that would be incurred by a prudent service provide acting efficiently in accordance with accepted good industry practice to achieve the lowest sustainable cost of delivering pipeline services.[[526]](#footnote-526)

Under Subdivision 4 of the NGR, Envestra is required to meet a number of requirements in regards to the performance of meters. Prior to the withdrawal of manual meter reading services by AEMO on 1 October 2011, Envestra detected errors in meters installed at large customer sites by relying on manual metered data provided by AEMO as well as telemetered data.[[527]](#footnote-527)

There is no evidence that this approach was inadequate in detecting errors.

On this basis, the AER is satisfied that the withdrawal of manual meter reading services that were previously undertaken by AEMO will need to be reinstated by Envestra to satisfy its requirements in regards to maintain the accuracy of meter installations.

However, Envestra's forecast increase in opex reflected approximately twelve months of manual meter reading costs. Given that AEMO ceased to provide these services from 1 October 2011, the AER expects that Envestra acting efficiently in accordance with accepted good industry practice to achieve the lowest sustainable cost of delivering pipeline services would have provided these services from this date and would have incurred manual meter reading costs from October 2011 to December 2011. Therefore the AER would expect that Envestra would only require an increase in opex for manual meter reading for nine months. Therefore the AER considers that only a forecast increase in opex for nine months of manual meter reading costs would represent the best estimate possible in the circumstances.[[528]](#footnote-528)

As the AER is satisfied from the evidence available to it that manual meter reading combined with telemetered data is satisfactory for identifying errors with metered data, other than restoring manual meter reading, the AER is not satisfied any additional increase in opex is required.

The increase in opex related to a new system for managing metered data does not appear to be related to the withdrawal of AEMO's manual meter reading services. Therefore if manual meter reading combined with telemetered data is inadequate for identifying errors with metered data, the AER would expect evidence to suggest that Envestra did not meet its regulatory obligations in the 2008–12 access arrangement period, or some other evidence that suggests Envestra's current approach for addressing these errors is of an inferior quality to accepted good industry practice, and a reasonable explanation as to why Envestra has not already taken measure to address this deficiency. No evidence presented by Envestra suggests otherwise.

Graphical information systems analyst

Envestra considers its graphical information system (GIS) resources to be limited. Envestra has proposed an additional opex allowance to fund a full time GIS Analyst. The additional resource would be allocated to both Envestra Victoria and Envestra Albury.[[529]](#footnote-529)

The AER is not satisfied that a step change in opex to fund a GIS analyst would lead to a forecast of total opex that has been arrived at on a reasonable basis or is the best forecast possible in the circumstances.[[530]](#footnote-530) As such, the AER considers a forecast of opex that includes a step change in opex for a GIS analyst would not be a forecast of 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.[[531]](#footnote-531)

The AER considers there will be both productivity gains and cost savings to Envestra from employment of a full-time GIS analyst. Productivity gains would be expected as a GIS expert would be able to undertake GIS-related work in a timelier manner than the resources currently devoted to these tasks. Further productivity gains would be expected from training provided to other staff. Cost savings would be expected as a result of a reallocation of resources currently devoted to collecting GIS data. Given these likely impacts the AER considers that an increase in opex would not be consistent with rr. 74 or 91 of the NGR.

Increased maintenance rates

Maintenance works for both Envestra Victoria and Envestra Albury are undertaken by an external service provider under contract. The contract expires in April 2013. The contract covers:

* leak repairs (first response and mains and services repairs)
* preventative maintenance (such as corrosion protection, leakage survey, pipeline patrol and inspections )
* third party/retailer/customer requests (such as asset locations, poor supply investigations, relighting appliances, high account investigations).[[532]](#footnote-532)

Envestra proposed a step change for both Envestra Victoria and Envestra Albury for forecast cost increases when this contract is retendered.[[533]](#footnote-533)

The AER is not satisfied the forecast cost increase was arrived at on a reasonable basis. [[534]](#footnote-534)

Maintenance costs are comprised mostly of labour. The labour portion of Envestra's opex forecast is escalated for forecast real labour cost increases. Consequently, the proposed step change double counts expected real labour cost increases. The AER considers the best forecast available in the circumstance is Envestra's base year maintenance expenditure, escalated for forecast real labour cost increases. The AER is satisfied that this is a forecast arrived at on a reasonable basis.

Increase in insurance costs

Envestra proposed an increase in expenditure for Envestra Victoria for forecast real insurance cost increases based on estimates provided by its insurance broker.

The AER is not satisfied the proposed expenditure increase 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.[[535]](#footnote-535)

Envestra's insurance broker forecast Envestra's insurance costs based on insured values and revenues provided to it by Envestra. The AER notes these values were not consistent with the capex program and revenues proposed by Envestra.

Regardless of this, forecast real cost increases are not required because Envestra will be compensated for the actual insurance cost increases included in CPI. Under the tariff variation mechanism, Envestra's Weighted Average Price Cap will increase by CPI minus X each year. Insurance costs are included in the CPI basket and the contribution of insurance costs to Envestra's total opex is consistent with the weighting in the CPI basket.[[536]](#footnote-536) Therefore Envestra will be compensated for any increase in insurance costs when its base year costs are escalated by CPI. Including a step change for increased insurance costs would double count the effect of price increases. Consequently Envestra's forecasts insurance costs have not been arrived at on a reasonable basis and do not represent the best estimate possible in the circumstances.[[537]](#footnote-537)

Changes in regulatory accounting policy – reactive mains replacement

Reactive replacement of mains occurs when there are urgent safety or supply issues. Envestra's regulatory accounting policy has been to capitalise all mains replacement works. Envestra proposed to align this policy with that of its other networks, where reactive replacement is recognised as repair work and expensed.[[538]](#footnote-538) Consequently Envestra proposed a step change for Envestra Victoria for reactive replacement expenditure, which is not included in its base year opex.

For the reasons set out in attachment 3 and appendix A, the AER considers reactive mains replacement should remain as capex. As such, the AER has assessed Envestra's proposed reactive mains replacement expenditure against the new capex criteria rather than the criteria governing opex, and has not included Envestra's proposed opex for reactive mains replacement in its forecast opex for the 2013–17 access arrangement period.

National Energy Customer Framework (NECF)

The NECF is a new regulatory framework that seeks to harmonise the ways customers interact with retailers and distributors across the gas and electricity sectors. The new framework will alter some of the obligations of Envestra and Envestra submitted that this will result in an increase in its opex over the 2013–17 access arrangement period for Envestra Victoria and Envestra Albury.[[539]](#footnote-539)

The AER considers that Envestra's proposed step change in relation to the introduction of the NECF does not reflect expenditure which would be incurred by a prudent and efficient service provider. The AER has reached this conclusion on the basis of a decision by the Victorian Government, announced on 13 June 2012, to delay the introduction of the NECF in Victoria.[[540]](#footnote-540) The Victorian Government also announced it would explore opportunities to align state retail and consumer protection arrangements with the national framework where it does not result in lower standards.[[541]](#footnote-541)

At the time Envestra submitted its access arrangement proposal the NECF was due to commence in Victoria on 1 July 2012. The calculation of the additional costs put forward in Envestra's access arrangement proposal was predicated on the NECF commencing on this date. However, at this stage it is uncertain when or in what form the NECF will commence in Victoria and so the AER is unable to conclude that the costs proposed by Envestra will reflect the prudent and efficient cost that it will incurred in the 2013–17 access arrangement period.

Accordingly the AER considers that NECF related expenditure can best be assessed as a pass through application once the relevant legislation is passed in Victoria. The AER considers it appropriate to include a NECF specific pass through in Envestra's access arrangement. As discussed in attachment 11 this NECF specific pass through is not subject to a materiality clause.

Network development expenditure

Envestra has proposed expenditure of $17.2 million ($2011) for network development costs for Envestra Victoria and $0.6 million ($2011) for Envestra Albury. These costs include the costs of processing gas connection orders and mains extension requests (including the costs of coordinating those capital works) and the marketing of gas aimed at increasing network connections and usage.[[542]](#footnote-542)

Envestra submitted that this activity was curtailed in the 2008–12 access arrangement period due to the global financial crisis and accordingly the amount of expenditure incurred by Envestra in the 2011 base year is not reflective of prudent and efficient expenditure.[[543]](#footnote-543) Envestra submitted that for this reason it is not appropriate to apply a base year roll-forward approach to forecast network development expenditure. Envestra submitted that it has developed forecasts of the costs of its network development plan over the 2013–17 access arrangement period from a zero base.[[544]](#footnote-544) Envestra proposed to expand its network development expenditure over the 2013–17 access arrangement period.

In its submission the EUCV argued network development expenditure should not be allowed at all as it would seek to increase energy consumption which is acting in the opposite direction to government programs aimed at encouraging consumers to use less energy.[[545]](#footnote-545)

The AER's draft decision is not to approve Envestra’s proposal to forecast its network development expenditure using a zero base approach. As discussed in section 6.5.2 the AER considers that the operation of the ECM requires the base year opex to be consistent with the opex used to determine any carryover amounts under the ECM. Accordingly the AER has included actual 2011 network development expenditure in its base year estimate.

The AER then examined whether a step change above this base year expenditure complies with rr. 74 and 91 of the NGR. The AER does not consider that Envestra's opex was forecast on a reasonable basis or that this would be opex that would 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.[[546]](#footnote-546)

The AER notes that Envestra's forecast costs are highly dependent on assumptions in the take-up of its incentive payments.[[547]](#footnote-547) Envestra forecasted an increase in the take up rate of the incentive payments of 35 per cent in 2012 and 10 per cent per annum thereafter. [[548]](#footnote-548) Envestra indicated that this assumption was developed taking into account the experience of a similar program in South Australia.[[549]](#footnote-549) However, Envestra noted that it does not yet have data to support the forecast take up rate in Victoria.[[550]](#footnote-550)

The AER also notes that Envestra's proposed step change in network development expenditure is discretionary in nature.[[551]](#footnote-551) As such, Envestra had the opportunity to undertake a prudent and efficient level of network development expenditure in the 2008–12 access arrangement period. The AER also notes that the efficiency sharing mechanism provides a continuous incentive to reduce opex to a prudent and efficient level. The AER considers that due to the discretionary nature of this expenditure and the operation of the ECM, that Envestra's actual level of network development expenditure was prudent and efficient, given the circumstances it faced at the time. The AER consider's that due to the discretionary nature of the spending and the uncertainty regarding the take-up, that Envestra's forecast does not comply with rule 74 of the NGR. Accordingly, a step change for this expenditure would not comply with r. 91 of the NGR and the step change amount would not reflect prudent and efficient expenditure.

However, the AER notes that Envestra has stated that its network development expenditure was curtailed due to the global financial crisis, Envestra stated:

For this reason, it was difficult to rapidly cut these [safety related] expenditures at the onset of the Global Financial Crisis. Network Development Expenditure was cut as it was one of the few areas where cuts could be rapidly implemented without triggering compliance issues.[[552]](#footnote-552)

As such the AER has considered whether Envestra's network development expenditure, while prudent and efficient in the 2008–12 access arrangement period is lower than may be prudent and efficient in the 2013–17 access arrangement period.

The AER considers that the global financial crisis is likely to have placed an even greater incentive on Envestra to reduce its opex to a prudent and efficient level. This strong incentive is a further reason to conclude that Envestra's historical expenditure on this program was a prudent and efficient amount given the circumstances Envestra was facing at that time. The AER notes that Envestra's expenditure was substantially lower than forecast during the 2008 to 2010 period.

However, as illustrated by figure 6.7 by 2011 Envestra's network development expenditure had significantly rebounded and the gap between Envestra's expenditure on network development and the amount approved by the ESC had reduced. The AER considers this evidence that the adverse business conditions which caused the need to curtail this expenditure had materially improved. As such, the AER considers that Envestra's expenditure in 2011 reflects a prudent and efficient level of expenditure in the 2013–17 access arrangement period. The AER considers that a step change increased in network development expenditure does not comply with r. 91 of the NGR.

Finally, the AER notes that Envestra has received a benefit from reduced expenditure in the 2008–12 access arrangement period. The AER considers that Envestra may use this underspend to fund an expansion of its network development plan if it considers this appropriate.

* + - 1. Envestra approved and actual network development expenditure



Source: AER analysis.

Easement Vegetation Management

Envestra has proposed expenditure of $10.2 million ($2011) for easement vegetation management costs for Envestra Victoria and $0.4 million ($2011) for Envestra Albury. These costs include:

* engagement of vegetation contractors to clear the highly vegetated areas and maintain the cleared pipeline corridors on a three to five year program
* Net Gain and Offset Management Plan costs associated with the acquisition of offset sites and maintenance program for each site for a ten year period.
* internal resources for managing and facilitating the environmental assessment and vegetation clearance program.[[553]](#footnote-553)

Envestra stated that this project is required by AS/NZS 2885.3-2001 and there is no other option but to proceed with the vegetation management program as proposed to ensure compliance with statutory obligations.[[554]](#footnote-554) The AER notes that AS/NZS 2885.3-2001 has been in place since 2001 and so does not represent a new statutory obligation. Accordingly, the AER queried the extent of vegetation management currently undertaken by Envestra and whether Envestra is currently compliant with AS/NZS 2885.3-2001.[[555]](#footnote-555) Envestra stated that:

While it could be argued that Envestra is currently not compliant with AS2885.3, the impact of any such non-compliance on the safety of consumers and the public has so far remained within tolerable levels. However, and as explained further in this response, Envestra has commenced planning works to remedy this situation before the risk to the safe operation of the pipeline increases to unacceptable levels.[[556]](#footnote-556)

The AER notes that $8.5 million ($2011) of Envestra's proposed expenditure relates to the initial clearance of the pipelines and associated environmental net gain offset costs.[[557]](#footnote-557) The AER considers that this initial clearance is required for Envestra to catch-up and become compliant with its regulatory obligations. Envestra further proposes an ongoing maintenance program to ensure ongoing compliance with these obligations. The AER also notes that Envestra has indicated that its current opex on vegetation management is $0.1 million per annum, however, Envestra states that this is inadequate.[[558]](#footnote-558)

The AER does not consider that the expenditure required for Envestra to become compliant with its regulatory obligations complies with r. 91 of the NGR as it would not 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. The AER considers that a prudent and efficient service provider would have undertaken vegetation management programs from 2001 (when AS/NZS 2885.3-2001 was introduced) onwards to ensure compliance with its regulatory obligations. As such, a prudent and efficient service provider would not require a step change in its opex allowance in the 2013–17 access arrangement period to enable it to become compliant with its regulatory obligations. The AER does not approve a step change for the expenditure required to clear overgrown pipelines and to bring Envestra into compliance with its regulatory obligations.

However, the AER considers that a prudent and efficient service provider would have already instituted an annual vegetation management program to ensure ongoing and continued compliance with its regulatory obligations. As such, the AER considers that it is appropriate that Envestra receives a sufficient opex allowance to fund this expenditure.

The AER has examined whether Envestra's base year opex allowance contains sufficient opex allowance for Envestra to fund an ongoing vegetation management program. The AER notes that Envestra has indicated that it has historical vegetation management costs of approximately $0.1 million per annum ($2011)[[559]](#footnote-559), which the AER considers is included in Envestra's base year opex allowance. The AER accepts that that this is insufficient for Envestra to undertake a prudent and efficient vegetation management program. While Envestra should have already been undertaking a more rigorous vegetation management program, the AER accepts that Envestra's base year opex does not include an amount to allow Envestra to undertake this program. Accordingly the AER considers that Envestra should be provided with a step change to undertake a prudent and efficient vegetation management program. The AER approves as a step change $0.7 million ($2011), which is the amount proposed for the ongoing program for the maintenance of the cleared pipelines less Envestra's historical expenditure on vegetation management, which is already included in Envestra's base year allowance.

* + 1. Escalation of base year opex

Real cost escalators

The AER is not satisfied Envestra's proposed real labour and materials cost escalators have been 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 C contains the AER’s more detailed consideration of the real cost escalators proposed by Envestra.

Table 6.11 outlines the impact of the AER’s draft decision on real cost escalators for Envestra Victoria.

* + - * 1. Envestra Victoria proposal and AER draft decision on real cost escalation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra's proposal | 1.6 | 6.4 | 9.0 | 8.9 | 9.8 | 35.8 |
| AER's draft decision | 0.4 | 0.7 | 1.1 | 1.4 | 1.8 | 5.4 |
| Difference | –1.3 | –5.7 | –7.9 | –7.5 | –8.0 | –30.3 |

Source: AER analysis.

Table 6.12 outlines the impact of the AER's draft decision on real cost escalators for Envestra Albury.

* + - * 1. Envestra Albury proposal and AER draft decision on real cost escalation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra's proposal | –0.01 | 0.16 | 0.26 | 0.29 | 0.41 | 1.10 |
| AER's draft decision | 0.01 | 0.02 | 0.04 | 0.05 | 0.06 | 0.17 |
| Difference | 0.02 | –0.13 | –0.22 | –0.25 | –0.35 | –0.93 |

Source: AER analysis.

* + 1. Other adjustments to forecast opex

As discussed in section 6.2.6 Envestra also proposed adjustments to its forecast opex to add costs included in its base year estimate (Network Management Fee, incentive payments and network development costs) and the costs which are not forecast using a base year roll forward method (ancillary reference services).

This section discusses the AER's draft decision on these issues.

Network Management Fee and incentive payments

Envestra outsources its network operating and maintenance activities to the APA Group for both Envestra Victoria and Envestra Albury, Envestra makes a number of payments to the APA Group, including:[[560]](#footnote-560)

* reimbursement of reasonable costs (direct and indirect) incurred by the APA Group in the performance of its obligations
* a NMF equal to 3 per cent of network revenue
* incentive payments – payable for achieving reductions in costs of new connections and reductions in controllable costs per GJ.

As discussed in appendix E the AER accepts that a NMF of 3 per cent of Envestra's revenue is consistent with the opex criteria but does not consider a forecast of opex that includes incentive payments to be a forecast arrived at on a reasonable basis.

As the NMF is equal to 3 per cent of actual revenue, and the AER has amended Envestra's total revenue forecasts for both Envestra Victoria and Envestra Albury, the AER has approved a lower forecast of the NMF than the forecast submitted by Envestra. To meet the relevant NGR criteria the AER forecasts that the portion of the NMF allocated to opex should be $11.8 million for Envestra Victoria and $0.4 million for Envestra Albury. The AER has not included a forecast of incentive payments in its opex forecast.

Opex for ancillary reference services

Envestra proposed the same ancillary reference services that applied in the 2008–12 access arrangement period.[[561]](#footnote-561)

The AER has reviewed the opex forecasts for ancillary reference services provided by Envestra and is satisfied that the forecasts were arrived at on a reasonable basis and represent the best forecast possible in the circumstances.[[562]](#footnote-562)

Regulatory costs

Envestra has proposed regulatory costs be forecast using a base year approach and accordingly proposed $1.3 million per annum across the access arrangement period. The AER requested further information regarding this amount as there was a discrepancy between this amount and the 2011 regulatory costs of $1.2 million per annum reported in Envestra's Regulatory Information Notice.[[563]](#footnote-563) Envestra advised the AER that the amount of $1.3 million included $0.1 million in licence fees and that this amount should have been excluded for the purposes of Envestra's base year estimate.[[564]](#footnote-564) The AER concurs and considers that to meet r. 74(2) of the NGR this amount should be removed from Envestra's opex forecast in the 2013–17 access arrangement period.

* + 1. Debt raising costs and liquidity costs

Debt raising costs

Debt raising costs are transaction costs incurred each time debt is raised or refinanced. These costs may include underwriting fees, legal fees, company credit rating fees and other transaction costs. Debt raising costs are an unavoidable aspect of raising debt that would be incurred by a prudent service provider acting efficiently. Accordingly, the AER provides an allowance to recover an efficient amount of debt raising costs.

The AER's approach to debt raising costs is based on a report from ACG commissioned by the ACCC in 2004.[[565]](#footnote-565) The AER has updated the ACG approach with more recent market data. The AER most recently updated this market data in August 2011. The approach uses a five year window of up to date bond data to reflect current market conditions.

This method provides estimates of debt raising costs that would be incurred by a prudent service provider, acting efficiently. This is because the ACG approach:

* First, identifies the types of transaction costs that a prudent service provider acting efficiently would incur in raising debt.
* Second, quantifies the level of these costs, taking into account the specific circumstances of the service provider, with reference to market rates for the relevant services.

It follows that, this should, in turn, estimate a debt raising cost forecast that provides Envestra with a reasonable opportunity to recover at least its efficient transaction costs in raising finance.[[566]](#footnote-566)

The ACG method involves calculating the benchmark bond size, and the number of bond issues required to rollover the benchmark debt share (60 per cent) of the RAB. The AER's standard approach is to amortise the upfront costs that are incurred using the relevant nominal vanilla WACC over a ten year amortisation period. This is then expressed in basis points per annum (bppa) as an input into the post tax revenue model (PTRM). The AER's approach recognises that credit rating costs can be spread across multiple bond issues, which lowers the benchmark allowance (as expressed in bppa) as the number of bond issues increases.

Envestra proposed debt raising costs of 15 bppa, or $6.0m (real, 2012) for Envestra Victoria and $0.16m (real, 2012) for Envestra Albury over the access arrangement period. The debt raising costs were based on a September 2010 Deloitte report (the Deloitte report).[[567]](#footnote-567) Envestra requested that Deloitte provide estimates for the benchmark efficient service provider accessing two types of debt funding: domestic bonds (Medium Term Notes (MTN)) and syndicated bank debt.[[568]](#footnote-568) Envestra stated that given the significant changes in debt markets since 2004, the Deloitte report provides a more accurate estimate of the current costs associated with debt financing than the 2004 ACG report—which the AER has relied on in recent decisions.[[569]](#footnote-569)

For the reasons below, the AER does not accept Envestra's debt raising costs method or bbpa rate. The debt raising cost proposed by Envestra are not the costs 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.[[570]](#footnote-570) Also, the forecast costs were not arrived at on a reasonable basis and do not represent the best forecast or estimate possible in the circumstances. As such, the AER considers that Envestra's debt raising costs are not consistent with the opex criteria or revenue and pricing principles, unlike the costs calculated based on the AER’s established method. The AER has therefore applied its established debt raising cost method.

September 2010 Deloitte Debt Financing Costs report

Envestra proposed debt raising costs of 15 bppa, based on a September 2010 Deloitte report (the Deloitte report).[[571]](#footnote-571) The 15 bppa debt raising cost proposal was based on a five year refinance cycle for a medium term note (MTN). The AER recognises that the Deloitte report submitted by Envestra is the same report that Envestra submitted during the 2011–16 South Australia access arrangement initial proposal and 2011­­­­­–16 Queensland access arrangement initial proposal.[[572]](#footnote-572) In those submissions, Envestra proposed debt raising costs, as derived in the Deloitte report, of 20.3 bppa—based on annualised median debt raising costs for the benchmark 10 year corporate bond of 10.1 bppa and 10.2 bppa to cover the cost of having short-term bank debt. Although Envestra's proposed debt raising cost bppa is not the same figure as proposed in the QLD and SA access arrangement proposals, the two figures are both derived from the same Deloitte report and are fundamentally based on the same method.[[573]](#footnote-573)

In the SA and QLD draft decisions, the AER did not agree with the method proposed by the Deloitte report. Envestra agreed to adopt the AER’s method in its revised access arrangement proposal.[[574]](#footnote-574) The AER considers that it has comprehensively evaluated the shortcomings of the Deloitte method and those criticisms continue to apply. Envestra has not provided information addressing those criticisms in its current access arrangement proposals.

Assessment of the Deloitte report

As noted by the AER in the Envestra SA and QLD draft decisions, the AER’s standard method for estimating debt raising costs is based on the 2004 ACG report. While the ACG report was commissioned in 2004, its findings on the general methodology are still relevant. The method uses a five year rolling window of up to date bond data in order to reflect current market conditions.[[575]](#footnote-575) The individual cost components have been indexed to accommodate inflation.[[576]](#footnote-576) Further, the AER has refined the ACG method over time to reflect changing circumstances.[[577]](#footnote-577) The AER considers that is incorrect for Envestra to state that the Deloitte report is more accurate because there have been ‘significant changes in debt markets since 2004’.[[578]](#footnote-578) The AER’s standard method already accounts for any such changes.

There are several reasons to conclude that the AER’s method produces a better estimate than that derived in the Deloitte report. The Deloitte report:

* makes no allowance for multiple bond issues,[[579]](#footnote-579) when the AER’s method correctly recognises that because multiple issues spread fixed costs they reduce the unit rate[[580]](#footnote-580)
* does not adjust for the time value of money,[[581]](#footnote-581) when the AER’s method appropriately amortises upfront costs[[582]](#footnote-582)
* uses the median bond issue size from 2004 ($175m),[[583]](#footnote-583) instead of the more up to date estimates ($250m) used by the AER method[[584]](#footnote-584)
* uses BBB+ rated bonds only,[[585]](#footnote-585) when the AER’s method uses a larger and therefore more statistically reliable sample with no loss of relevance[[586]](#footnote-586)
* is not transparent with regard to many key data attributes.[[587]](#footnote-587)

Therefore, the debt raising costs forecast by Envestra are neither arrived at on a reasonable basis nor represent the best forecast or estimate possible in the circumstances. Additionally, Envestra's proposed debt raising costs bbpa is more than 50 per cent higher than the other Victorian gas service providers' proposals. It is not reasonable to expect that a benchmark efficient service provider in Envestra's circumstances would have a debt raising cost bbpa 50 per cent higher than other Victorian gas service providers, given all these service providers can operate in the same financial markets.

In its current proposal, Envestra did not seek an allowance for short term bank debt or early refinancing costs as proposed by Envestra in SA/QLD. The shortcomings in the Deloitte report on early refinancing costs in respect of the regulatory regime are not discussed here, but are available in the AER’s draft decision for Envestra SA/QLD.[[588]](#footnote-588)

Benchmark debt raising costs

The AER has applied its established debt raising cost method to Envestra, using Envestra's RAB value which has been updated for this draft decision. The AER's benchmark allowance provides for 3 standard sized bond issues for Envestra Victoria and 1 standard sized bond issues for Envestra Albury. The unit costs and the benchmark debt raising cost are shown in table 6.13 for Envestra Victoria and table 6.14 for Envestra Albury. As this draft determination is based on indicative rates, the AER will update this analysis for the final decision based on the debt component of the RAB and WACC to be determined at the time.

* + - * 1. AER’s draft decision on debt raising costs for Envestra Victoria based on a nominal WACC of 7.16 per cent

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Value | Explanation | 1 issue | 2 issues | 3 issues |
| Total amount raised | Multiples of median MTN ($250m) | $250m | $500m | $750m |
| Gross underwriting fee | Median gross underwriting spread, upfront per issue, amortised | 6.45 | 6.45 | 6.45 |
| Legal and roadshow | $195 000 upfront per issue, amortised | 1.12 | 1.12 | 1.12 |
| Company credit rating | $55 000 per annum | 2.20 | 1.10 | 0.73 |
| Issue credit rating | 4.5 basis points upfront per issue, amortised | 0.65 | 0.65 | 0.65 |
| 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** | **10.8** | **9.7** | **9.3** |

Source: AER analysis

* + - * 1. AER’s draft decision on debt raising costs for Envestra Albury based on a nominal WACC of 7.16 per cent

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Value | Explanation | 1 issue | 2 issues | 3 issues |
| Total amount raised | Multiples of median MTN ($250m) | $250m | $500m | $750m |
| Gross underwriting fee | Median gross underwriting spread, upfront per issue, amortised | 6.45 | 6.45 | 6.45 |
| Legal and roadshow | $195 000 upfront per issue, amortised | 1.12 | 1.12 | 1.12 |
| Company credit rating | $55 000 per annum | 2.20 | 1.10 | 0.73 |
| Issue credit rating | 4.5 basis points upfront per issue, amortised | 0.65 | 0.65 | 0.65 |
| 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 | 10.8 | 9.7 | 9.3 |

Source: AER analysis

This has resulted in the debt raising costs outlined in table 6.15 for Envestra Victoria and in table 6.16 for Envestra Albury.

* + - * 1. Debt raising costs for Envestra Victoria ($m real, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 |
| Debt raising costs | 0.60 | 0.63 | 0.65 | 0.65 | 0.66 |

Source: AER analysis

* + - * 1. Debt raising costs for Envestra Albury ($m real, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 |
| Debt raising costs | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |

Source: AER analysis

Liquidity costs

Envestra proposed liquidity costs of $9.3 million (nominal) for Envestra Victoria and $0.09 million (nominal) for Envestra Albury over the 2012­–17 access arrangement period.[[589]](#footnote-589) Envestra stated:[[590]](#footnote-590)

‘Liquidity risk is the risk that a business will have insufficient funds to meet its financial commitments in a timely manner. The two key elements of liquidity risk are short-term cash flow risk and long-term funding risk. The long-term funding risk includes the risk that loans may not be available when the business requires them or that such funds will not be available for the required term or at acceptable cost. All businesses need to manage liquidity risk to ensure that they remain solvent.’

According to Envestra, to keep the benchmark firm’s credit rating of BBB+, Envestra must maintain 'adequate' liquidity as defined by a Standard & Poor’s (S&P) paper.[[591]](#footnote-591) Liquidity is measured by S&P by dividing a service provider's liquidity 'sources' by its liquidity 'uses' (the liquidity ratio).[[592]](#footnote-592) These 'uses' and 'sources' are outlined by S&P.[[593]](#footnote-593) According to S&P, to achieve an adequate liquidity ratio, companies should be able to withstand adverse market circumstance for 12 months while maintaining a liquidity ratio of 1.2. Envestra submitted that the main source of liquidity for a regulated gas network is undrawn available bank debt.[[594]](#footnote-594) Further, Envestra submitted, liquidity costs are not captured in the cost of debt or the operating cost building block of revenue.[[595]](#footnote-595)

The AER does not agree with Envestra’s proposal for liquidity costs. The AER considers that liquidity costs are provided for in the AER’s implicit working capital allowance—which the AER provides through the cashflow timing assumptions in the PTRM.

The implicit allowance for working capital in the PTRM

Firms hold working capital because on average, revenues may be received after expenses are paid. Absent working capital, a firm would not be able to meet its short term liabilities in such cases. Holding working capital, however, gives rise to an opportunity cost because funds are tied up to meet the short term shortfalls and cannot be invested.[[596]](#footnote-596) A network service provider should be compensated for this opportunity cost. Whether an explicit working capital allowance should be provided depends on whether the timing assumptions in the simple building block revenue formula approximately reflect the actual timing of costs and revenues within a year.

In 2002, Allen Consulting Group (ACG) provided the ACCC with a report on working capital.[[597]](#footnote-597) The report concluded that, because the PTRM assumes service providers receive revenue on the last day of the year, target revenue would offset any shortfall in the cost of financing operating expenditure (the required return on working capital). The reports states:[[598]](#footnote-598)

These results provide no rationale for including an additional allowance in target revenue to provide a return on working capital. Rather, the results suggest that, were further precision to be sought in relation to the within-year timing of cash-flow – which underpins the arguments for a return on working capital – then the likely outcome is that the more precise target revenue would be lower than that derived using the PTRM.

Further, the report found that: [[599]](#footnote-599)

The results above imply that [a working capital] allowance is unnecessary – while there may be a (small) financing cost associated with operating expenditure, any shortfall from not including an allowance in respect of working capital is likely to be swamped by the favourable allowance provided in respect of capital assets under the PTRM target revenue formula. It follows that if the Commission were to pursue further precision in relation to the assumptions it makes about the within-year timing of cash flow – which underpins the arguments for a return on working capital – then the likely outcome is that more precise target revenue would be lower than that derived using the PTRM.

In 2007, the AER noted that the PTRM has been modified since the 2002 ACG report to recognise capex in the middle of each year, while still assuming revenues are received on the last day of the year. As noted by the AER previously, this change further benefits the service provider.[[600]](#footnote-600) Service providers and the AER have commonly understood that the favourable cashflow timing assumptions in the PTRM provide an allowance for working capital.[[601]](#footnote-601)

Liquidity and working capital

Working capital is one measure of a service provider’s liquidity.[[602]](#footnote-602) It is calculated as current assets minus current liabilities. ‘Current’ broadly refers to assets/liabilities that will be realised/settled within 12 months.[[603]](#footnote-603)

While S&P’s definition of liquidity includes some additional items to that of the strict definition of working capital, the overall concept is the same—that is, that there be enough cashflow and liquid assets to meet short term liabilities over a 12 month period. The AER provides an allowance to ensure service providers are funded to meet capital requirements that might arise.

When the ACG report was commissioned, the ACCC requested ACG to apply the methodology for determining whether a working capital allowance should be explicitly provided, to a real word example (the Epic-Energy Moomba-Adelaide pipeline). Using 2001 as the test year, ACG found that the cashflow timing assumptions in the PTRM provided Epic Energy with revenue of 1.8 per cent greater than the target revenue. Applying this to the AER's draft decision target revenue for Envestra finds that the benefits received is $15.45 million ($ nominal) for Envestra Victoria and $0.54 million ($ nominal) for Envestra Albury over the access arrangement period.[[604]](#footnote-604) This is well in excess of the liquidity costs sought by Envestra and demonstrates that the working capital allowance is more than sufficient to meet S&P’s liquidity ratio. If this allowance is included in Envestra's liquidity cost calculation (as should be the case according to S&P's liquidity calculation[[605]](#footnote-605)) then Envestra would not require liquidity costs. Envestra has been provided with a reasonable opportunity to recover at least the efficient costs.[[606]](#footnote-606)

The AER acknowledges that the Moomba-Adelaide pipeline was a transmission pipeline whereas Envestra's access arrangement proposal relates to distribution networks. The same timing assumptions may not be appropriate for both network types. If this is the case, it is unclear to the AER whether the appropriate timing assumptions for a distribution network would favour Envestra or not relative to the Moomba-Adelaide pipeline. The AER is not able to resolve such possible differences in timing assumptions based on the information it has. However, the over compensation that ACG estimated is significantly greater than the liquidity costs sought by Envestra. Therefore, the AER considers that this compensates Envestra for liquidity costs. Envestra, however, may provide its own quantification of the working capital allowance provided for in the PTRM, in its revised proposal. If Envestra does so, it should clearly show the assumptions used and provide evidence supporting them, so that the AER can review them.

Notwithstanding that the concepts of liquidity and working capital are the similar, the AER has examined Envestra liquidity cost calculation. If a separate provision for liquidity costs was appropriate, the AER would not be satisfied with the calculation method and assumptions for several reasons. For example, unlike the assumptions used by Envestra:

* The imputation payout ratio rather than the dividend payout ratio should be used.
* Expected capital expenditure may significantly reduce under an adverse market scenario.
* Distributions would be reduced/removed under an adverse market scenario.

Also, the cost would need to be recalculated in light of the AER’s decision on the WACC and forecast expenditures.

In summary, the AER provides Envestra with an allowance for working capital to meet its short term liabilities and therefore, Envestra's proposed liquidity costs are not required. Further, if Envestra included its working capital allowance in its liquidity cost calculation, then using Envestra’s calculation method, an allowance for liquidity would not be required. This is the case notwithstanding the unrealistic assumptions in Envestra's calculation methodology. Given that an allowance has already been made, the AER does not agree with Envestra's proposed liquidity costs of $9.3 million (nominal) for Envestra Victoria and $0.09m (nominal) for Envestra Albury. Allowing Envestra to double recover costs would not 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.[[607]](#footnote-607) Also, Envestra has been provided with a reasonable opportunity to recover at least the efficient costs.[[608]](#footnote-608)

* 1. Revisions
     1. Envestra Victoria

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

Revision 1.1: Make all necessary amendments to reflect the AER's draft decision on the proposed opex allowances for the 2013–17 access arrangement period, as set out in table 6.1.

Revision 1.2: Make all necessary amendments to reflect the AER's draft decision on forecast debt raising costs for the 2013–17 access arrangement period, as set out in Table 6.15.

* + 1. Envestra Albury

The AER requires Envestra Albury make the following revisions to its access arrangement proposal consistent with the NGR and NGL:

Revision 6.1: Make all necessary amendments to reflect the AER's draft decision on forecast opex for the 2013–17 access arrangement period, as set out in table 6.2.

Revision 6.2: Make all necessary amendments to reflect the AER's draft decision on forecast debt raising costs for the 2013–17 access arrangement period, as set out in Table 6.16.

1. Incentive mechanisms

Incentive mechanisms are an important tool to provide service providers a continuous incentive 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 relative 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. This is five years, corresponding to the length of the access arrangement period.

This chapter presents the AER’s assessment of Envestra's proposed:

* carryovers from the operation of the incentive mechanisms in the 2008–12 access arrangement period, namely the efficiency sharing mechanism
* incentive mechanisms for the 2013–17 access arrangement period.
  1. Draft decision
     1. Carryover from the 2008­–12 access arrangement period

Envestra Victoria

The AER does not approve Envestra Victoria's proposed carryover of $4.7 million ($2012) from the 2008–12 access arrangement period. This proposed carryover was not calculated in accordance with the efficiency sharing mechanism set out in its 2008–12 access arrangement. The AER calculated that Envestra Victoria has instead accrued –$8.6 million ($2012) to be carried over from the 2008–12 access arrangement period (table 7.1).

* + - * 1. AER draft decision on Envestra Victoria carryover from the 2008­–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra proposed | 4.8 | 2.6 | –1.1 | –1.6 | – | 4.7 |
| AER draft decision | 2.1 | –1.0 | –7.5 | –2.2 | – | –8.6 |
| Difference | –2.6 | –3.6 | –6.4 | –0.7 | – | –13.3 |

Source: Envestra Victoria Access arrangement information, pp. 177–178, Envestra Vic PTRM , AER analysis .

Envestra Albury

The AER does not approve Envestra Albury's proposed carryover of zero from the 2008–12 access arrangement period. This proposed carryover has not been calculated in accordance with the efficiency sharing mechanism set out in its 2008–12 access arrangement. The AER calculated that Envestra Albury has instead accrued –$2.3 million ($2012) to be carried over from the 2008–12 access arrangement period (table 7.2).

* + - * 1. AER draft decision on Envestra Albury carryover from the 2008­–12 access arrangement period ($million, 2006)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Envestra proposed | – | – | – | – | – | – |
| AER draft decision | –0.7 | –0.7 | –0.7 | –0.2 | – | –2.3 |
| Difference | –0.7 | –0.7 | –0.7 | –0.2 | – | –2.3 |

Source: AER analysis.

* + 1. Proposed incentive mechanism for the 2013–17 access arrangement period

The AER does not approve Envestra Victoria and Envestra Albury's proposal to not include an incentive mechanism to apply to opex in the 2013–17 access arrangement. The AER may require the inclusion of one or more incentive mechanisms to encourage efficiency in the provision of services by Envestra Victoria and Envestra Albury.[[609]](#footnote-609) The AER has decided to require Envestra Victoria's and Envestra Albury's access arrangements to include the incentive mechanism set out in section .

The AER approves Envestra Victoria and Envestra Albury's proposal to not include an incentive mechanism to apply to capex in the 2013–17 access arrangement.

* 1. Envestra proposal
     1. Carryovers accrued in the 2008­–12 access arrangement period

Envestra Victoria

Envestra Victoria proposed a total carryover of $3.9 million ($2006) into the 2013–17 access arrangement period from applying the efficiency sharing mechanism during the 2008–12 access arrangement period (table 7.3).

* + - * 1. Envestra Victoria proposed carryover from the 2008­–12 access arrangement period ($million, 2006)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Opex efficiency carryover | –1.5 | –2.2 | –3.1 | –1.8 | – | –8.7 |
| Capex efficiency carryover | 5.5 | 4.4 | 2.3 | 0.5 | – | 12.6 |
| Total | 4.0 | 2.1 | –0.9 | –1.3 | – | 3.9 |

Source: Envestra, Victoria Access arrangement information, March 2012, pp. 177–178, Envestra Vic PTRM.

Envestra Albury

Envestra Albury proposed a carryover amount of zero in the 2013–17 access arrangement period from applying the incentive mechanism in the 2008–12 access arrangement period. Envestra stated the combined opex and capex efficiency carryover was negative and, in accordance with the Essential Services Commission Appeal Panel's decision of 11 November 2008, the current efficiency carryover mechanism gives no power or discretion that would enable a regulator to impose a negative carry over.[[610]](#footnote-610)

* + 1. Proposed incentive mechanism for the 2013–17 access arrangement period

Envestra Victoria and Envestra Albury proposed to not include an incentive mechanism to apply to either opex or capex in their 2013–17 access arrangements. Envestra considered its outsourcing contract with the APA Group will provide sufficient incentives to achieve lower costs.[[611]](#footnote-611)

* 1. Assessment approach

Under the NGR, the AER must:

* take into account the operation of the efficiency carryover mechanism approved in the 2008–12 access arrangement and ensure the revenue calculations made for the 2013–17 access arrangement period properly reflect increments or decrements resulting from the operation of the efficiency carryover mechanism[[612]](#footnote-612)
* decide whether the 2013–17 access arrangement includes one or more incentive mechanisms to encourage efficiency in the provision of services by Envestra Victoria and Envestra Albury [[613]](#footnote-613)

In ensuring the 2013–17 access arrangement period properly reflect increments or decrements resulting from the operation of the efficiency carryover mechanism, the AER calculated the carryover resulting from the application of the efficiency carryover mechanism as set out in the 2008–12 access arrangement.

In determining whether the AER should require an incentive mechanism to be included in the 2013–17 access arrangements, the AER considered:

* the rationale for applying an incentive mechanism and whether it would encourage efficiency in the provision of services by Envestra Victoria and Envestra Albury
* the appropriate parameters of an incentive mechanism and the specific circumstances of Envestra Victoria and Envestra Albury [[614]](#footnote-614)
* whether the mechanisms are consistent with the RPP.
  1. Reasons for decision
     1. Carryover from the 2008­–12 access arrangement period

The mechanism for carrying over efficiency gains and losses is set out in clause 7.2(b) of Envestra Albury and Envestra Victoria's 2008–12 access arrangements. The mechanism applies to both opex and capex. How those gains and losses are to be calculated is set out in clause 7.2(a) of Envestra Albury and Envestra Victoria's 2008–12 access arrangements. Clause 7.2(b)(3)(B) states opex and capex benchmarks to calculate the carryover amounts to apply for the 2012­–17 access arrangement period should be adjusted to account for differences between forecast output and actual output:

actual expenditure will also be adjusted to take account of the difference between forecast and actual output. This will be done by taking into account the difference in the number of connections (compared to forecast) multiplied by the capital expenditure per connection and operating expenditure per connection.

The Essential Services Commission's (ESC's) final decision provides further guidance on how this should be done for opex:[[615]](#footnote-615)

The Commission considers that adjustments to the operating expenditure benchmarks for growth should be made in accordance with the approach adopted in establishing the operating expenditure benchmarks. Therefore, given that the Commission has adopted a new approach for establishing the operating expenditure benchmarks for the upcoming regulatory period, it is appropriate to include an adjustment mechanism for growth that reflects this new approach.

Envestra used the approach in its access arrangement to adjust the capex benchmarks. However it did not adjust the opex benchmarks using the same approach adopted by the ESC to establish the benchmarks. The AER notes, however, that it was not possible for Envestra to adjust it opex benchmarks using the approach used by the ESC because the required information was not publicly available. The AER obtained the information required from the Pacific Economics Group, which forecast the rate of change for the ESC.

The AER also found errors in the actual opex Envestra used to calculate the carryover. Envestra did not remove its licence fees from actual opex for 2011, which it did for the other years, and included an incorrect estimate of its network management fee for 2011. The AER corrected the actual opex value for 2011 to remove the licence fee paid and reflect actual network management fee paid in 2011.

The AER also removed movements in provisions because it did not consider these to be actual expenditure, as discussed in attachment 6. Actual expenditure should reflect liabilities paid from provision accounts as this reflects the expenses actually paid by a services provider in a given year.

The increase in provisions charged to profit was significant for Envestra Victoria in both 2008 and 2009. However, the liabilities paid from provisions were significantly less in 2008 and no liabilities were paid in 2009. The impact of this was to significantly increase Envestra Victoria's reported opex in 2008 and 2009. This brought forward efficiency losses made by Envestra Victoria. Consequently, these efficiency losses were not carried forward as far in to the 2013–17 access arrangement period and the reward accrued by Envestra Victoria was increased. However, the AER considers the proposed carryover does not reflect the efficiency gains and losses made by Envestra Victoria because movements in provisions do not reflect actual expenditure.

Envestra Albury removed increases in provisions charged to profit from the actual expenditure amounts it used to calculate its carryover (and its opex forecast). Including the liability paid from provision accounts in 2010 and 2011 (none were paid in 2008 and 2009) increases the efficiency loss made in those years. Rolling these losses forward for five years reduces the efficiency carryover accrued by Envestra Albury in the 2008–12 access arrangement period. The AER notes, however, making the same adjustment to Envestra Albury's base opex increases its opex forecast by a greater amount and the net impact of including liabilities paid from provisions is positive.

The AER also recognises the Essential Services Commission Appeal Panel varied Envestra Albury's Final Decision and Further Final Decision concerning the 2008–12 access arrangement to include a zero carryover between the 2003–07 and 2008–12 access arrangement periods.[[616]](#footnote-616) However, the Appeal Panel did not vary the efficiency carryover mechanism in Envestra Albury's access arrangement. Nor did it make any variations requiring any negative carryover accrued in the 2008–12 access arrangement period be set to zero.

As noted above, the AER is required to ensure the revenue calculations made for the   
2013–17 access arrangement period properly reflect increments or decrements resulting from the operation of the efficiency carryover mechanism as set out in Envestra Albury's access arrangement.

For these reasons the AER has recalculated the carryover amounts in accordance with clause 7.2 of Envestra Albury and Envestra Victoria's 2008–12 access arrangements (tables 7.4 and 7.5).

* + - * 1. AER calculation of Envestra Victoria carryover from the 2008­–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Opex efficiency carryover | –1.9 | –4.2 | –9.1 | –2.6 | – | –17.9 |
| Capex efficiency carryover | 4.0 | 3.2 | 1.6 | 0.4 | – | 9.3 |
| Total | 2.1 | –1.0 | –7.5 | –2.2 | – | –8.6 |

Source: AER analysis.

* + - * 1. AER calculation of Envestra Albury carryover from the 2008­–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Opex efficiency carryover | –0.7 | –0.8 | –0.8 | –0.2 | – | –2.5 |
| Capex efficiency carryover | 0.0 | 0.1 | 0.1 | –0.0 | – | 0.1 |
| Total | –0.7 | –0.7 | –0.7 | –0.2 | – | –2.3 |

Source: AER analysis.

* + 1. Proposed incentive mechanism for the 2013–17 access arrangement period

The AER does not accept Envestra’s proposal not to include an incentive mechanism applying to opex in the 2013–17 access arrangement. Envestra's forecast opex is based on its historical opex in a single year, consistent with the AER's general approach to determining forecast opex allowances. The AER considers it important to give Envestra a continuous incentive to reduce costs through the operation of an incentive mechanism. An incentive mechanism applying to opex would encourage efficiency in the provision of services by Envestra Victoria and Envestra Albury and is consistent with the RPP.

The AER accepts Envestra's proposal not to include an incentive mechanism applying to capex in the 2013–17 access arrangement. The AER considers a capex incentive scheme delivers an inappropriate incentive to inefficiently defer capex, which is inconsistent with an incentive mechanism that encourages efficiency and the RPP.[[617]](#footnote-617)

Opex incentive mechanism

The AER considered in detail the rationale for opex incentive mechanisms in the electricity distribution and transmission efficiency benefit sharing schemes.[[618]](#footnote-618) The same rationale largely applies to gas distribution businesses as well. The AER’s reasons for applying an incentive mechanism to opex are summarised below.

Rationale for opex incentive mechanisms

The nature of the building block approach to regulation means a service provider is able to retain benefits from reducing expenditure longer if it does so closer to the start of the access arrangement period. Opex is generally recurrent in nature, so the AER has adopted a revealed cost approach as the basis of forecasting opex. A result of adopting this forecasting approach is that service providers have an incentive to shift expenditure into the base year used to set opex forecasts for the following access arrangement period. Applying an incentive mechanism to opex counteracts these incentives. In particular, an incentive mechanism that allows the service providers to retain the benefits of any efficiencies gained for a period of five years after the year in which the efficiency was made provides service providers a continuous incentive to increase efficiency. This removes the incentive to defer efficiency gains or shift expenditure into the base year.[[619]](#footnote-619)

Efficiency carryover incentive mechanisms provide service providers a continuous incentive to reduce expenditure throughout the access arrangement period. If a service provider shifts costs into the base year to increase future allowances, it will face negative carryovers from the ‘loss of efficiency’ of shifting the costs into the base year. Therefore, the service provider will be no better off and has no incentive to shift costs into the base year.[[620]](#footnote-620) Providing the service provider a continuous incentive to reveal its efficient costs allows those revealed efficient costs to be used to forecast efficient levels of opex for subsequent access arrangement periods, which is in the long term interest of consumers and consistent with the national gas objective.[[621]](#footnote-621)

The AER is also satisfied the inclusion of an opex incentive mechanism in Envestra's access arrangement will provide Envestra a reasonable opportunity to recover at least its efficient costs and be consistent with the RPP. [[622]](#footnote-622) This is because the mechanism rewards efficiency gains and penalises efficiency loss. In this regard it is important to recognise the reward or penalty is set through a combination of using revealed costs to forecast subsequent opex allowances and carryover increments or decrements. For example, if Envestra's opex increases in the base year, its opex allowance for the following access arrangement period will be higher but it will incur a negative carryover ensuring it retains the efficiency loss for five years after the loss being made.

Consequently, how actual opex is used to inform the opex allowance for the following access arrangement period is a key factor in whether the mechanism will allow Envestra to retain the reward associated with efficiency gains for five years. For this to be achieved opex must be forecast based on actual expenditure in the penultimate year of the preceding access arrangement period. If external benchmarks, or a bottom up forecast, is used to set opex allowances Envestra would retain the reward (penalty) of efficiency improving (decreasing) initiatives for longer than five years and would in fact be rewarded (penalised) twice, once in the ex ante opex allowance, which would not reflect the efficiency saving (loss), and a second time in the carryover increments or decrements. Consequently it is important actual expenditure in the base year is used as the basis for setting opex forecasts in the following access arrangement period.

Further, to ensure Envestra retains the reward associated with efficiency improving initiatives for five years, it is important opex forecasts reflect the same level of efficiency as that demonstrated in the opex base year. In this regard it is reasonable to apply real cost escalation and network growth (or scale) escalation. This is because more opex will be required to produce more outputs, or pay higher inputs prices at the same level of efficiency. To ensure step changes also reflect the same level off efficiency, the AER considers step changes should only be provided for new regulatory obligations or changes in the external operating environment beyond Envestra's control.

Envestra’s circumstances

Envestra considers that its contractual arrangements with the APA Group provide sufficient incentives to reduce costs. However, Envestra has control over both the decision to in-source or out‑source services and the design of the pricing arrangements in the contract. Therefore, the AER considers it important to continue to place the same opex incentives on Envestra as it does on other gas service providers.

Envestra also appears to have significant involvement in setting the APA Group’s budget and work program for the operation and management of Envestra’s networks each year. Envestra’s access arrangement information outlines the budget setting process under the outsourcing arrangement with the APA Group.[[623]](#footnote-623) Under the outsourcing arrangement, Envestra sets financial targets for each financial year. The APA Group prepares a draft budget for Envestra based on these financial targets. Envestra reviews the budget prior to a series of meetings between senior executives of Envestra and the APA Group discussing the draft budget. These meetings include discussion of:

* the scope of, and need for, the works program and forecast costs included in the draft budget
* the risks and other associated issues with the proposed works program
* the extent that the draft budget meets the financial targets set by Envestra.[[624]](#footnote-624)

Under its outsourcing arrangement with the APA Group, Envestra is entitled to accept or vary the remainder (referring to discretionary components of the work plan) of the budget submitted to it by the APA Group. Envestra can challenge the budgets submitted by the APA Group for review by questioning how the unit rates are calculated and requiring justification of the opex comprised in the budget.[[625]](#footnote-625)

Further, Envestra states in its access arrangement information that there is:

... “vigorous debate about the activities to be undertaken during the budget year, the volume of gas to be delivered, and the unit rates such as the cost per repair, the cost per meter for construction, the cost per correction of a leak etc” at the meetings discussing the draft budget.[[626]](#footnote-626)

This information indicates that Envestra has significant input in the work program and budget setting process of the APA Group. It is therefore appropriate to provide opex incentives on Envestra to continuously drive lower costs in its outsourcing arrangements with the APA Group. The AER considers this is consistent with r. 98(3) of the NGR and the RPP.

The pricing mechanisms in the outsourcing arrangement with the APA Group do not provide Envestra with continuous incentives to reduce costs and gain efficiencies in the absence of an opex incentive mechanism. The purpose of the incentive payments in the outsourcing arrangement is to drive the APA Group to achieve lower costs. Envestra benefits from those lower costs during an access arrangement period where the actual costs are lower than the forecast allowance. Envestra therefore has an incentive to drive the APA Group to make efficiency gains through the annual budget setting process. However, as noted in the section above, in the absence of an incentive mechanism, Envestra's incentives to reduce costs decreases in each year of the access arrangement period. Envestra would also have no incentive to reduce costs in the base year, as the actual costs in the base year are used as the basis of determining the forecast allowances. Therefore, it is important to place further opex incentives on Envestra to provide it with a continuous incentive to reduce costs.

The application of an incentive mechanism has been effective in driving efficiency gains. Envestra’s past performance indicates the incentive mechanisms have been effective in contributing to Envestra achieving efficient cost outcomes. A partial factor productivity study undertaken by Economic Insights included four different measures of opex (opex per TJ, opex per customer, opex per kilometre and opex per unit output). The benchmarking analysis showed Envestra (both Victorian and Albury networks) decreased opex against all of these measures since 1998.[[627]](#footnote-627)

Envestra should include an incentive mechanism for opex in its access arrangements for 2013–17 because:

* the effective application of an incentive mechanism to Envestra resulted in lower costs
* it is desirable to provide Envestra a continuous incentives to reduce opex.

The AER considers requiring Envestra to include an incentive mechanism for opex in its access arrangements for 2013–17 encourages efficiency in the provision of services and is consistent with the RPP.

Capex incentive mechanism

The AER has previously noted 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.[[628]](#footnote-628) This is because the service provider receives a return on that deferred capital twice in the following access arrangement period (in addition to the return on capital provided in the preceding period) if the deferred capex is not removed from the capex forecast:

* first in the ex ante capex allowance
* a second time in the return on the unspent capex provided by the capex incentive mechanism carryover.

The ESC considered this when it decided to continue to apply the capex incentive mechanism in its 2007 draft decision for the Victorian gas distribution networks.[[629]](#footnote-629) The ESC considered the nature of capex in the gas industry, and its ability to monitor volumes and unit rates better than in the electricity industry, provided it with the ability to adjust benchmarks to reflect the actual amount of capital works undertaken. With gas distribution, a large part of capex is recurrent in nature because a large proportion is ongoing projects, such as replacements. The ESC considered there was scope for service providers to make efficiency gains that are achievable indefinitely into the future in such ongoing projects. This provided it with greater certainty that carryovers would not be generated due to inefficient deferral of capital expenditure.[[630]](#footnote-630)

A comparison of the actual capex spend of the Victorian gas distribution businesses against forecast capex in the 2003–07 and 2008–12 access arrangement periods supports the hypothesis that the distribution businesses are increasingly deferring their capex programs. These deferrals are occurring in all capex categories, including significant deferral of non‑volume driven capex.

In addition, the incentive to maintain service standards must also be considered. Ideally capex incentives would be balanced with an equal incentive to maintain or improve service levels. This would encourage efficiency driven capex reductions without a fall in service standards. Because service standard obligations are only loosely defined for gas distribution businesses,[[631]](#footnote-631) and no service standard incentive mechanism is in place, the AER considers Envestra does not have a balanced incentive to maintain service levels.

For these two reasons, the AER considers a capex incentive mechanism similar to the scheme in Envestra's 2008–12 access arrangements would not provide effective incentives to promote efficient investment. The incentives to defer capex, and the lack of a balanced service standard incentive, would lead to the potential for underinvestment in the pipeline and over utilisation of the pipeline. The AER considers the potential risk of underinvestment in the pipeline outweighs the potential benefits of the incentives to generate capex efficiencies. Therefore, a capex incentive mechanism would result in outcomes inconsistent with the requirements in the RPP[[632]](#footnote-632) and would be inconsistent with r. 98 of the NGR. For these reasons, the AER accepts Envestra's proposal not to apply an incentive mechanism to capex.

* + 1. AER draft decision incentive mechanism to apply in the 2013–17 access arrangement period

The AER has set out an incentive mechanism to be included in Envestra Victoria and Envestra Albury's 2013–17 access arrangements that it considers will encourage efficiency in the provision of services and is consistent with the RPP.

Incentive mechanism

1. The incentive mechanism should only apply to operating expenditure.
2. The incentive mechanism provides Envestra a continuous incentive to find operating expenditure efficiencies through a combination of:

* an ex ante forecast of operating expenditure in Envestra's Total Revenue
* increments or decrements from the operation of this incentive mechanism that allow Envestra to retain efficiency gains or losses for five years.

1. The operating expenditure annual efficiency gain (or loss) for 2013 will be calculated as:

E2013 = (F2013 – A2013) – (F2012 – A2012) + (F2011 – A2011)

where:

E2013 is the efficiency gain in 2013

F2013 is the forecast opex for 2013

A2013 is the actual opex for 2013

F2012 is the forecast opex for 2012

A2012 is the actual opex for 2012

F2011 is the forecast opex for 2011

A2011 is the actual opex for 2011

1. The operating expenditure annual efficiency gain (or loss) for 2014 to 2017 will be calculated as:

Ei = (Fi – Ai) – (Fi-1 – Ai-1)

where:

Ei is the efficiency gain in year i of the access arrangement period

Fi is the forecast opex in year i of the access arrangement period

Ai is the actual opex in year i of the access arrangement period

Fi-1 is the forecast opex in year i–1 of the access arrangement period

Ai-1 is the forecast opex in year i–1 of the access arrangement period

1. Opex in 2017 is to be estimated using the following equation:

A2017\* = A2016 + F2017 – F2016

where:

A2017\* is the estimate of opex for 2017

F2017 is the forecast opex for 2017

F2016 is the forecast opex for 2016

A2016 is the actual opex for 2016

1. For the avoidance of doubt, the operating expenditure annual efficiency gain (or loss) for 2017 will be assumed to equal zero.
2. The annual efficiency gain or loss will be added to Envestra's Total Revenue for five years after the year in which the efficiency gain (or loss) was achieved. If necessary, the annual efficiency gain or loss will be carried forward into the access arrangement period commencing 1 January 2018 until it has been retained by Envestra for a period of five years.
3. To ensure efficiency gains or losses made in 2017 are retained for five years, opex for the access arrangement period commencing in 2018 should be forecast in a manner consistent with the estimate for opex in 2017, A2017\*, in clause 5. This provides Envestra the same reward had the expenditure level in 2017 been known.
4. Increments or decrements from the summation of annual efficiency gains or losses calculated in accordance with the approved incentive mechanism in the Access Arrangement Period will give rise to an additional ‘building block’ in the calculation of the Total Revenue amounts.
5. The following costs will be excluded from the operation of the efficiency carryover mechanism:
6. costs associated with complying with any retailer of last resort requirements
7. amounts for approved Cost Pass Through Events
8. unaccounted for gas expenses
9. licence fees
10. debt raising costs
11. network management fee
12. incentive fees
13. movements in provisions
14. any other activity that Envestra and the Regulator agree to exclude from the operation of the efficiency carryover mechanism.
15. For the avoidance of doubt, the forecast expenditure amounts that are used as the basis for measuring efficiencies are equal to the forecast operating cost for that year as shown in Table X.X[[633]](#footnote-633) in Envestra's Access Arrangement Information, with the following exception:
16. the carryover of cost-related efficiency gains will be calculated in a manner that takes account of any change in the scale of the activities which form the basis of the determination of the original benchmarks. The opex benchmarks will be adjusted consistent with the way in which the benchmark was determined. That is, any adjustment will be made according to the following formula:

Adjustment = (forecast number of connections – actual number of connections) × approved opex per connection

1. Where Envestra changes its approach to classifying costs as either capex or opex during the access arrangement period, Envestra will adjust the forecast opex in table X.X[[634]](#footnote-634) in Envestra's Access Arrangement Information so that the forecast expenditures are consistent with the capitalisation policy changes.
2. If there is a change in Envestra’s approach to classifying costs as either capex or opex, Envestra must provide to the AER a detailed description of the change and a calculation of its impact on forecast and actual opex.

Table 7.6 must be added to Envestra Victoria's access arrangement information for 2013–17 to specify the forecast expenditure used as the basis for measuring efficiencies.

* + - * 1. Envestra Victoria forecast operating expenditure for the purposes of the incentive mechanism in the 2013–17 access arrangement ($million, 2012)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Forecast opex | 52.4 | 52.4 | 54.2 | 54.9 | 55.6 | 56.3 | 57.0 |

Source: AER analysis.

Table 7.7 must be added to Envestra Albury's access arrangement information for 2013–17 to specify the forecast expenditure used as the basis for measuring efficiencies.

* + - * 1. Envestra Albury forecast operating expenditure for the purposes of the incentive mechanism in the 2013–17 access arrangement ($million, 2012)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Forecast opex | 2.42 | 2.42 | 2.49 | 2.51 | 2.53 | 2.55 | 2.57 |

Source: AER analysis.

* 1. Revisions
     1. Envestra Victoria

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

Revision 7.1: amend the access arrangement proposal and access arrangement information as necessary to reflect the AER's draft decision on carryover amounts from the current access arrangement period as set out in tables 7.1 and 7.4.

Revision 7.2: amend the access arrangement proposal to include the incentive mechanism set out in section 7.4.3.

Revision 7.3: amend the access arrangement proposal and access arrangement information to include table 7.6.

* + 1. Envestra Albury

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

Revision 7.1: amend the access arrangement proposal and access arrangement information as necessary to reflect the AER's draft decision on carryover amounts from the current access arrangement period as set out in tables 7.2 and 7.5.

Revision 7.2: amend the access arrangement proposal to include the incentive mechanism set out in section 7.4.3.

Revision 7.3: amend the access arrangement proposal and access arrangement information to include table 7.7.

1. Corporate income tax

When determining the total revenue for Envestra’s Victorian and Albury distribution businesses (Envestra), the AER must estimate the Envestra's cost of corporate income tax.[[635]](#footnote-635) Envestra has adopted the post-tax framework to derive its revenue requirements for the 2013–17 access arrangement period.[[636]](#footnote-636) Under the post-tax framework, a separate corporate income tax allowance is calculated as part of the building blocks assessment.

* 1. Draft decision

The AER approves the Envestra's proposal to use a combination of the ESC’s tax roll forward model and the AER’s post-tax revenue model (PTRM) to estimate the forecast corporate income tax allowance. However, the AER does not approve Envestra’s proposed forecast corporate income tax allowances for the 2013–17 access arrangement period of:

* Envestra Victoria—$40.3 million ($nominal)[[637]](#footnote-637)
* Envestra Albury—$2.0 million ($nominal).

This is mainly because of the AER's adjustments to Envestra’s proposed opening tax asset base as at 1 January 2013 (section 8.4.1), rate of return (attachment 4) and forecast opex (attachment 6).

The AER approves Envestra's proposed method to establish the opening tax asset base as at 1 January 2013. However, the AER does not approve some of Envestra's proposed tax additions during the 2008–12 access arrangement period, and therefore does not approve Envestra's proposed opening tax asset base as at 1 January 2013. The AER’s adjustments to the tax additions reduce Envestra's proposed opening tax asset bases as at 1 January 2013 by approximately:

* Envestra Victoria—$1.1 million (nominal), or 0.3 per cent
* Envestra Albury—$0.4 million (nominal), or 4.9 per cent.

The AER accepts Envestra's proposal to maintain separate tax groups for tax depreciation purposes. The disaggregation of tax groups reflects the different historical tax treatment applied to Envestra's assets. Unlike the capital base, the tax asset base reflects requirements under tax law. These requirements change over time but assets should be rolled forward in line with prevailing tax law at the time the capex enters the tax asset base. Maintaining disaggregated tax groups allows for this.

The AER approves most of Envestra's proposed standard tax asset lives for group 7 tax assets associated with forecast capex for the 2013–17 access arrangement period. These proposed lives are consistent with the ESC’s approved standard tax asset lives for group 6 tax assets in the 2008–12 access arrangement period. The AER also accepts Envestra's proposed change to its tax depreciation approach from the declining balance method (with the exception of the 'Land & buildings' asset class) to the straight-line method for its group 7 tax assets. Both the declining balance and straight-line methods are permissible under the tax law.

The AER’s adjustments result in an estimated cost of corporate income tax allowances of:

* $20.9 million ($nominal) for Envestra Victoria as shown in
* $1.5 million ($nominal) for Envestra Albury as shown in table 8.2

Based on the approach to modelling the cash flows in the PTRM for this draft decision, the AER has derived effective tax rates of 23.73 per cent and 33.87 per cent for Envestra Victoria and Envestra Albury respectively.

* + - * 1. AER's draft decision on corporate income tax allowance for Envestra Victoria ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Tax payable | 1.5 | 3.6 | 6.0 | 7.7 | 9.1 | 27.9 |
| Less: value of imputation credits | 0.4 | 0.9 | 1.5 | 1.9 | 2.3 | 7.0 |
| Net corporate income tax allowance | 1.1 | 2.7 | 4.5 | 5.7 | 6.8 | 20.9 |

Source: AER analysis.

* + - * 1. AER's draft decision on corporate income tax allowance for Envestra Albury ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Tax payable | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 2.0 |
| Less: value of imputation credits | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 |
| Net corporate income tax allowance | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 1.5 |

Source: AER analysis.

* 1. Envestra’s proposal

For the 2013–17 access arrangement period, Envestra proposed a total corporate income tax allowances of:

* Envestra Victoria—$40.3 million ($nominal) as set out in table 8.3.
* Envestra Albury—$2.0 million ($nominal) as set out in table 8.4.

Envestra used a combination of the ESC’s tax roll forward model and the AER’s PTRM to calculate the corporate income tax allowance for each year of the 2013–17 access arrangement period.[[638]](#footnote-638) In estimating its corporate income tax allowances, Envestra used: [[639]](#footnote-639)

* an opening tax asset base of $383.8 million ($nominal) as at 1 January 2013 for its Victorian distribution business
* an opening tax base of $8.2 million ($nominal) as at 1 January 2013 for its Albury distribution business
* 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 its proposed PTRMs.
  + - * 1. Envestra Victoria’s proposed corporate income tax allowance   
           ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | Total |
| Tax payable | 6.0 | 8.3 | 11.1 | 13.1 | 15.2 | 53.8 |
| Less value of imputation credits | 1.5 | 2.1 | 2.8 | 3.3 | 3.8 | 13.4 |
| Net corporate income tax allowance | 4.5 | 6.2 | 8.3 | 9.8 | 11.4 | 40.3 |

Source: Envestra Albury, Post tax revenue model, March 2012.

* + - * 1. Envestra Albury’s proposed corporate income tax allowance   
           ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | Total |
| Tax payable | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 2.6 |
| Less value of imputation credits | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.7 |
| Net corporate income tax allowance | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 2.0 |

Source: Envestra Victoria, Post tax revenue model, March 2012.

Consistent with its earlier access arrangements, Envestra maintained separate tax groups to allow for different standard tax asset lives to be applied to capex incurred in a particular access arrangement period. These standard tax asset lives reflect the tax law applicable at the time. Envestra did not propose any remaining tax asset lives at an asset class level, rather it calculated depreciation in separate tax groups broken down to reflect any changes in tax treatment over time.

For the 2013–17 access arrangement period, Envestra proposed a new tax group (group 7) for capex to be incurred in 2013–17. Envestra proposed changing its tax depreciation approaches from the declining balance method to the straight-line method for most of the group 7 tax assets. This change is shown in table 8.5.

* + - * 1. Envestra's proposed group 7 tax depreciation approaches

|  |  |  |
| --- | --- | --- |
| Tax asset class | Group 6 (2008 to 2012 capex) | Group 7 (proposed 2013 to 2017 capex) |
| Mains and services | Declining balance | Straight-line |
| Meters domestic | Declining balance | Straight-line |
| Meters industrial & commercial | Declining balance | Straight-line |
| Land & buildings | Straight-line | Straight-line |
| Other assets | Declining balance | Straight-line |
| Repairs | Fully deductible | Fully deductible |
| Equity raising costsa | n/a | Straight-line |

Source: Envestra Victoria, Post tax revenue model, March 2012; Envestra Albury, Post tax revenue model, March 2012

(a). Equity raising costs belong to a new tax group (group 8) which Envestra proposed for the 2013–17 access arrangement period.

* 1. Assessment approach

The AER's approach to calculating Envestra’s cost of corporate income tax is set out in the PTRM and begins with an estimate of taxable income that would be earned by an efficient company operating Envestra’s businesses. The AER has modelled Envestra’s tax expenses over the 2013–17 access arrangement period. Interest tax expense is estimated using a benchmark 60 per cent gearing, rather than Envestra’s actual gearing. Tax depreciation is calculated using a separate tax asset base. All tax expenses (including other expenses such as operating expenditure) are offset against the service provider's forecast revenue to estimate the taxable income. The statutory income tax rate of 30 per cent is then applied to the estimated taxable income to arrive at a notional amount of tax payable. The AER then applies a discount to that notional amount of tax payable to account for the assumed utilisation of imputation credits (gamma), which has a value of 0.25. This amount is then included as a separate building block in determining Envestra’s total revenue.[[640]](#footnote-640)

The corporate income tax allowance is an output of the AER’s PTRM. The AER therefore has assessed Envestra’s proposed corporate income tax allowances by analysing Envestra’s proposed inputs to the PTRM for calculating the tax allowance. These inputs include:

* the opening tax asset bases as at 1 January 2013
* the tax depreciation approaches for each asset class
* the standard tax asset life for each asset class
* the income tax rate
* the value of gamma.

In assessing Envestra's proposals, the AER has had regard to the NGO and the revenue and pricing principles.[[641]](#footnote-641)

The AER considers that the roll forward of the opening tax asset bases to 1 January 2013 should be based on the ESC’s approved opening tax asset base as at 1 January 2007 and Envestra’s actual capex in earlier access arrangement periods. The value of the actual capex used for rolling forward the tax asset base is subject to the AER’s assessment of these values as discussed in attachment 2.[[642]](#footnote-642)

The AER assesses Envestra’s proposed standard tax asset lives, where necessary, against those prescribed by the Commissioner for Taxation in Tax Ruling 2012/2. The AER also assesses Envestra’s proposed tax depreciation approaches and standard tax asset lives against the ESC’s approved tax depreciation approaches and standard tax asset lives in the earlier access arrangement period where necessary.

Given Envestra proposed to use the declining balance tax depreciation approach for most of the group 1–6 tax assets,[[643]](#footnote-643) these tax asset classes do not require remaining tax asset lives.[[644]](#footnote-644)

* 1. Reasons for decision

The AER’s draft decision on Envestra’s corporate income tax allowances is:

* Envestra Victoria—$20.9 million ($nominal), which is a reduction of $19.4 million ($nominal) or 48.2 per cent compared to the proposed corporate income tax allowance
* Envestra Albury—$1.5 million ($nominal), which is a reduction of $0.5 million ($nominal) or 23.5 per cent compared to the proposed corporate income tax allowance.

The AER accepts most of Envestra’s proposed method for calculating the corporate income tax allowance because Envestra has used a combination of the ESC’s tax roll forward model and the AER’s PTRM for the calculation. However, the AER adjusted several of Envestra’s proposed inputs to the PTRM for calculating the corporate income tax allowance, which include:

* the opening tax asset base as at 1 January 2013
* the tax depreciation approach for the 'Land & buildings' asset class in group 7 tax assets
* splitting the 'Land & buildings' asset class into two separate asset classes of 'Land' and 'Buildings'.

In addition, there are various other changes to the building block components in this draft decision that impact forecast revenues. These will consequently affect the forecast corporate income tax allowance.

* + 1. Opening tax asset base as at 1 January 2013

The AER accepts most of Envestra's approach to determine the opening tax asset base as at 1 January 2013. In particular, the AER accepts Envestra's proposal to use opening tax asset bases as at 1 January 2007 of:

* Envestra Victoria—$225.0 million ($nominal)[[645]](#footnote-645)
* Envestra Albury—$7.6 million ($nominal).[[646]](#footnote-646)

The ESC approved these amounts in its decision for the 2008–12 access arrangement period.

However, the AER does not approve aspects of the opening tax asset bases. Specifically, the AER has amended:

* tax additions from 2007–12
* the 'Land & buildings' asset class by splitting the asset class into two separate asset classes of 'Land' and 'Buildings'
* minor formulae errors in the proposed tax roll forward model.

The AER considers that Envestra's proposals without these changes do not represent an estimate of the tax asset base that is the best possible in the circumstances, as required by r. 74(2) by the NGR.

Tax additions

The AER does not approve Envestra's proposed tax additions for 2007–12 for both distribution businesses. The AER has amended the tax additions to be consistent with the AER's draft decision on the roll forward of the capital base (attachment 2). Because Envestra's historical tax asset classes differ from its capital base asset classes, the AER has estimated these allocations to ensure total capital base additions for each year are fully allocated to the tax asset base. The AER's adjustment to Envestra Victoria's tax additions represents an increase of $2.7 million ($nominal) from the proposed tax additions for   
2007–12. This is caused largely by:

* an increase of $3.9 million to 2007 tax additions to reflect NGEP capital expenditure
* a reduction of $1.2 million to 2012 tax additions to reflect the AER's draft decision on capex in in the 2008–12 access arrangement period.

The AER's approved tax additions for 2007–12 are set out in table 8.6.

* + - * 1. AER's draft decision on Envestra Victoria's tax additions for 2007–12 ($million, nominal)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Tax asset class | 2007 gas extensiona | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Mains and services | 3.5 | 36.1 | 37.1 | 29.9 | 43.1 | 60.2 | 79.4 |
| Meters (group 5) | 0.1 | 7.8 | n/a | n/a | n/a | n/a | n/a |
| Meters domestic (group 6) | n/a | n/a | 5.1 | 4.9 | 6.0 | 6.0 | 7.8 |
| Meters industrial and commercial (group 6) | n/a | n/a | 3.0 | 2.5 | 2.0 | 2.4 | 1.7 |
| Land and buildings | – | – | 0.2 | – | – | –- | – |
| Other assets | 0.1 | 4.4 | 5.4 | 6.3 | 3.9 | 5.9 | 4.7 |
| Repairs | – | – | – | – | – | – | 2.2 |
| Total | 3.7 | 48.2 | 50.8 | 43.6 | 55.1 | 74.5 | 95.8 |

Source: AER analysis.

(a) These tax additions for gas extensions are as approved by the ESC for the 2008–12 access arrangement period.

n/a Not applicable

Similarly, the AER's adjustment to Envestra Albury's tax additions represents a reduction of $0.5 million (nominal) or 7 per cent of the proposed tax additions for 2007–2012. The AER's approved tax additions for 2007–2012 are set out in table 8.7.

* + - * 1. AER's draft decision on Envestra Albury's tax additions for 2007–12 ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Tax asset class | 2007a | 2008 | 2009 | 2010 | 2011 | 2012 |
| Mains and services | 0.6 | 0.8 | 0.9 | 0.6 | 0.8 | 0.5 |
| Meters (group 5) | 0.3 | n/a | n/a | n/a | n/a | n/a |
| Meters domestic (group 6) | n/a | 0.4 | 0.3 | 0.2 | 0.1 | 0.3 |
| Meters industrial and commercial (group 6) | n/a | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 |
| Land and buildings | – | – | – | – | – | – |
| Other assets | – | – | – | 0.4 | – | 0.0 |
| Repairs | – | – | – | - | – | 0.0 |
| Total | 1.0 | 1.3 | 1.2 | 1.2 | 1.0 | 0.8 |

Source: AER analysis.

(a) The ESC did not approve any tax additions for gas extensions.

n/a Not applicable

The AER considers that these amended tax additions will result in the best possible estimate of Envestra's tax asset bases and therefore the corporate income tax allowances for the 2013–17 access arrangement period, as required by r. 74(2) of the NGR.

'Land & buildings' asset class

The AER does not approve Envestra's proposal to continue using the ‘Land & buildings’ asset class in the opening tax asset base as at 1 January 2013 for tax depreciation purposes in the 2013–17 access arrangement period. However, consistent with the ESC's decision for rolling forward the tax asset base to 2012, the AER does approve Envestra's proposal to maintain the single 'Land & buildings' asset class up to the closing tax asset base for 2012. From 2013, due to land being a non-depreciable asset, the AER considers that the 'Land & buildings' asset class should then be split into separate 'Land' and 'Buildings' asset classes. Neither Envestra nor the AER has sufficient information to accurately allocate the residual asset value from 2013. For the purposes of maintaining consistency with the tax depreciation treatment of this expenditure by the ESC, the AER has allocated all of the residual value into the 'Buildings' asset class so it can continue to depreciate.

In recent decisions, the AER has consistently separated land from other asset classes, and not assigned a standard tax asset life to land (assigned a term of 'n/a' for modelling purposes) in the tax asset roll forward model and the PTRM.[[647]](#footnote-647) This is because land is a non-depreciable asset under the Australian taxation law, and does not diminish in its useful life.[[648]](#footnote-648) The Income Tax Assessment Act (ITAA) 1997 excludes land from the definition of a ‘depreciating asset’.[[649]](#footnote-649)

For its Victorian distribution business, Envestra's proposed opening tax asset base as at 1 January 2013 contains an opening tax asset base value of $2.4 million ($nominal) for the 'Land & buildings' asset class. However, for Envestra's Albury distribution business, there was no proposed opening tax asset base value for the 'Land & buildings' asset class in the opening tax asset base as a result of it being fully depreciated. The AER sent an information request to Envestra to inquire about a possible split of the opening tax asset base value as at 1 January 2013f between land and buildings for its Victorian distribution business.[[650]](#footnote-650) In response, Envestra stated that it did not have enough information that would allow split of the opening tax asset value of the ‘Land & buildings’ asset class.[[651]](#footnote-651) It submitted:

The initial capital base (ICB) was established in 1997 by the Energy Projects Division (EPD) of the Department of Treasury and Finance and occurred while the network was still owned by the Victorian Government. A depreciation schedule (including deprecation on the “Land and Building” asset category) was also developed by EPD at this time. The valuation and depreciation information formed part of the 1998 to 2002 Access Arrangement submitted by the Victorian Government to the Office of the Regulator-General (ORG).

Envestra has reviewed all relevant documents in our possession. No information has been located to provide further detail on the proportion of the land (if any) included in the ICB. Moreover, it is noted that the ORG and the Essential Services Commission (ESC) continued to apply the depreciation schedule developed by the EPD in 1997 through the subsequent 2003 to 2007 and 2008 to 2012 Access Arrangement periods.

For the 2013 to 2017 Access Arrangement period, Envestra has continued the same approach to depreciating “Land and Buildings” as was earlier applied by the Victorian Government, the ORG and the ESC.

Based on Envestra's response, the AER considers that it is reasonable for Envestra to maintain ‘Land & buildings’ as a single asset class to roll forward the tax asset base to the end of 2012. However, the AER considers that separate asset classes should apply for the opening tax asset base at 1 January 2013 and for any future tax additions due to the different tax depreciation laws applicable to land and buildings.

Envestra did not forecast any capex for the 'Land & buildings' asset class for either of its Victorian or Albury distribution businesses over the 2013–17 access arrangement period. Nonetheless, the AER has split this asset class into two separate asset classes of 'Land' and 'Buildings' and assigned relevant standard tax asset lives for these two new asset classes. This is discussed further below in section 8.4.3.

The AER’s draft decision on Envestra's tax asset base roll forward for the 2008–12 access arrangement period is set out in table 8.8 and table 8.9.

* + - * 1. AER's draft decision on Envestra Victoria's tax asset base roll forward for the 2008–12 access arrangement period ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Opening tax asset base | 225.0 | 245.7 | 263.9 | 274.1 | 294.5 | 331.5 |
| Tax additions | 51.8 | 50.8 | 43.6 | 55.1 | 74.5 | 95.8 |
| Tax depreciation | 31.2 | 32.6 | 33.4 | 34.6 | 37.6 | 44.6 |
| Closing tax asset base | 245.7 | 263.9 | 274.1 | 294.5 | 331.5 | 382.7 |

Source: AER analysis.

* + - * 1. AER's draft decision on Envestra Albury's tax asset base roll forward for the 2008–12 access arrangement period ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Opening tax asset base | 7.6 | 7.4 | 7.7 | 7.8 | 8.0 | 8.0 |
| Tax additions | 1.0 | 1.3 | 1.3 | 1.2 | 1.0 | 0.8 |
| Tax depreciation | 1.2 | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 |
| Closing tax asset base | 7.4 | 7.7 | 7.8 | 8.0 | 8.0 | 7.8 |

Source: AER analysis.

* + 1. Tax depreciation approaches

The AER accepts Envestra's proposal to maintain separate tax groups for tax depreciation purposes. The AER approves Envestra's proposal to continue applying the same tax depreciation approaches to group 1–6 tax assets as allowed by the ESC in the 2008–12 access arrangements.

The AER approves Envestra's proposed change in tax depreciation approach from declining balance to straight-line for most group 7 tax assets with the exception of the 'Land & buildings' asset class. This is because the ITAA allows both the declining balance method and   
straight-line method to be used to depreciate new tax additions for tax purposes.[[652]](#footnote-652) The straight-line method is also consistent with the tax depreciation approach approved by the AER in recent decisions.[[653]](#footnote-653)

As land is a non-depreciating asset, the AER has split the 'Land & buildings' asset class into separate asset classes of 'Land' and 'Buildings' from 1 January 2013. Consistent with the 2008–12 access arrangement, the AER considers the 'Buildings' asset class should be depreciated using the straight-line method. However, the AER has not assigned a tax depreciation method for the 'Land' asset class due to the non-depreciating nature of land (assigned a term of 'n/a' for modelling purposes).

The AER’s draft decision on Envestra's tax depreciation approaches to group 7 tax assets associated with forecast capex for the 2013–17 access arrangement period is set out in   
table 8.10.

* + - * 1. AER's draft decision on Envestra's tax depreciation approaches for group 7 tax assets

|  |  |  |
| --- | --- | --- |
| Tax asset class | Envestra Victoria  Group 7 (2013–17 capex) | Envestra Albury Group 7 (2013–17 capex) |
| Mains and services | Straight-line | Straight-line |
| Meters domestic | Straight-line | Straight-line |
| Meters industrial & commercial | Straight-line | Straight-line |
| Landa | n/a | n/a |
| Buildingsb | Straight-line | Straight-line |
| Other assets | Straight-line | Straight-line |
| Repairs | Fully deductible | Fully deductible |
| Equity raising costsc | n/a | Straight-line |

Source: AER analysis.

(a) This asset class is for any actual capex 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 capex that may be incurred for 2013–17.

(c) The AER's analysis in the PTRMs shows that only Envestra Albury will incur benchmark equity raising cost (see attachment 3).

n/a Not applicable.

* + 1. Standard tax asset lives

With the exception of the 'Land & buildings' asset class, the AER approves Envestra's proposed standard tax asset lives for group 7 tax assets for the 2013–17 access arrangement period. This is because most of these proposed lives are consistent with those prescribed by the Commissioner for taxation in Tax Ruling 2012/2 and the ESC’s approved standard tax asset lives in the 2008–12 access arrangement period.[[654]](#footnote-654)

Envestra proposed a standard tax asset life of 40 years for the ‘Land & buildings’ for the purposes of calculating tax depreciation for the 2013–17 access arrangement period.[[655]](#footnote-655) This 40 year life is consistent with the ESC’s approved standard tax asset life for Envestra's ‘Land & buildings’ asset class in the 2008–12 access arrangement.[[656]](#footnote-656)

Although Envestra did not forecast any capex for the 'Land & buildings' asset class for both its Albury and Victorian distribution businesses over the 2013–17 access arrangement period, the AER has split this asset class into two separate asset classes of 'Land' and 'Buildings'. The AER considers that:

* the 'Buildings' asset class should be assigned a standard tax asset life of 40 years. This is consistent with the standard economic life approved by the ESC for the 2008–12 access arrangement period.[[657]](#footnote-657)
* the 'Land' asset class should not be assigned a standard tax asset life reflecting the   
  non-depreciating nature of the asset ('n/a' is assigned for tax modelling purposes in Envestra's PTRMs).

The AER's approved standard tax asset lives for Envestra's group 7 tax assets for the   
2013–17 access arrangement period are set out in table 8.11.

* + - * 1. AER's draft decision on Envestra's standard tax asset lives for group 7 tax assets

|  |  |  |
| --- | --- | --- |
| Tax asset class | Envestra Victoria Group 7 (2013–17 capex) | Envestra Albury Group 7 (2013–17 capex) |
| Mains and services | 20 | 20 |
| Meters domestic | 4 | 4 |
| Meters industrial & commercial | 15 | 15 |
| Land | n/a | n/a |
| Buildings | 40 | 40 |
| Other assets | 10 | 10 |
| Repairs | Fully deductiblea | Fully deductiblea |
| Equity raising costsb | n/a | 5c |

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.

(b) Equity raising costs belong to a new tax group (group 8) which was proposed by Envestra for the 2013–17 access arrangement period.

(c) The AER's analysis in the PTRMs shows that only Envestra Albury will incur benchmark equity raising cost (see attachment 3). The AER has accepted Envestra's proposal to assign a tax standard economic life of 5 years for the ‘Equity raising costs’ asset class. This proposed tax standard economic life is consistent with the tax standard economic life for the ‘Equity raising costs’ asset class approved in previous AER decisions.

* + 1. Remaining tax asset lives

Envestra did not proposed any remaining tax asset lives at the asset class level. This is because tax depreciation for an individual asset class is calculated in the separate tax groups based on the historical tax approach adopted for each group. Remaining tax asset lives for the majority of Envestra's assets in its tax groups are also unnecessary. This is because the tax depreciation approach used for those assets in the earlier access arrangement periods is the declining balance method, rather than the straight-line method. Therefore, the AER considers that remaining tax asset lives at an asset class level are not necessary for the purposes of calculating Envestra's tax depreciation.

* + 1. Utilisation of imputation credits (gamma)

Under the Australian imputation tax system, domestic investors receive a credit for tax paid at the company level (an ‘imputation credit’ or gamma) that offsets part or all of their personal income tax liabilities. For eligible shareholders, imputation credits represent a benefit from the investment in addition to any cash dividend or capital gains received. As part of the post‑tax nominal framework, the value of gamma must be applied to calculate the net income tax allowance for the 2013–17 access arrangement period.

The AER approves Envestra's proposal to adopt the value of 0.25 for gamma. The proposed gamma value is consistent with the findings by the Australian Competition Tribunal (Tribunal) in its review of the AER’s 2010 distribution determinations for Energex, Ergon Energy and ETSA Utilities.[[658]](#footnote-658) The AER also adopted the value of 0.25 for gamma in its recent final decision for the Roma to Brisbane gas pipeline access arrangement.[[659]](#footnote-659) There is no new evidence before the AER to cause it to vary from the findings of the Tribunal.

* 1. Revisions

The AER requires the following revisions to make the access arrangement proposals acceptable:

Revision 8.1: Make all necessary amendments to reflect the AER’s draft decision on the proposed corporate income tax allowance for the 2013–17 access arrangement period, as set out in table 8.1 and table 8.2.

Revision 8.2: Make all necessary amendments to reflect the AER’s draft decision on the tax additions for 2007–2012, as set out in table 8.6 and table 8.7.

Revision 8.3: Make all necessary amendments to reflect the AER’s draft decision on the tax depreciation approach for group 7 tax assets associated with forecast capex for the 2013–17 access arrangement period, as set out in table 8.10.

Revision 8.4: Make all necessary amendments to reflect the AER’s draft decision on the standard tax asset lives, as set out in table 8.11.

1. Demand

This attachment sets out the AER's assessment of the demand forecasts proposed by Envestra for its Victorian and Albury gas distribution networks for the 2013–17 access arrangement period. Demand is an important input into the derivation of Envestra's reference tariffs. It also affects opex and capex linked to network growth.

* 1. Draft decision

The AER does not approve the proposed demand forecasts as they do not comply with r. 74(2) of the NGR. In applying its forecasting methodology, Envestra used some assumptions and data sets that have biased the modelling results. In particular, for weather normalisation:

* estimates of Effective Degree Day (EDD) used by Envestra resulted in demand forecasts that are biased
* the heating degree days (HDD) data used by Envestra for its Albury network is not the most current data available.

The AER considers that Envestra's proposed demand forecasts are not arrived at on a reasonable basis and do not represent the best forecasts possible in the circumstances. The reasons for the AER's decision are discussed below.

* 1. Envestra proposal

Envestra engaged Core Energy Group Pty Ltd (Core) to prepare its demand forecasts. Core applied a six step approach to produce Envestra's proposed demand forecasts:[[660]](#footnote-660)

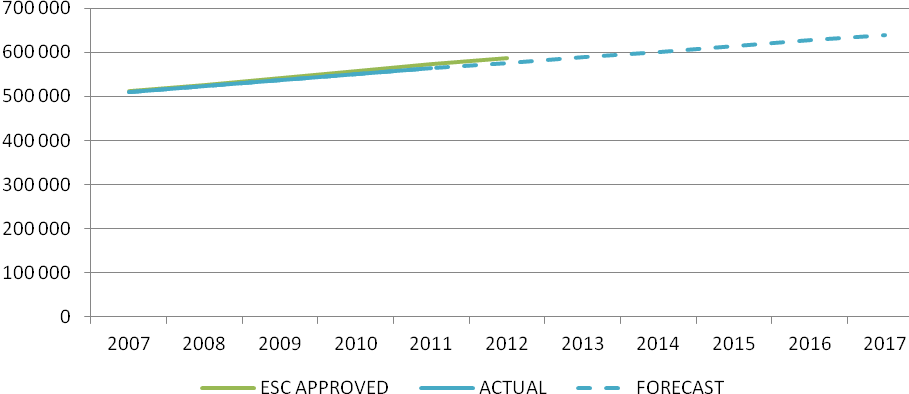
* normalise historic demand data for weather considerations
* identify drivers of demand for each tariff category and screen available data for completeness and suitability
* select a preferred methodology for demand forecasting based on statistical significance and supportability
* collate required data sets for each tariff category
* derive forecasts for defined variables
* produce forecasts of demand by tariff category and zone as appropriate.
* Table 9.1 below shows the drivers of gas demand that Core considered in developing Envestra's proposed demand forecasts.
  + - * 1. Drivers of customer connections and usage of gas

|  |  |  |
| --- | --- | --- |
| Tariff | Connection number drivers | Usage drivers |
| Tariff V - Residential | Starting connections, growth in customer base, substitution and near term planned connections | Historic volumes, weather, persons per dwelling, appliance take ups and retirements, price elasticity |
| Tariff V - Non-Residential / Small Industrial | Starting connections, growth by industry, policy/incentives , near term planned connections | Historic volumes, gross state product, price elasticity |
| Tariff D - Industrial Demand | Starting connections, growth by industry, policies/incentives, near term planned connections | Historic MHQ per customer, gross state product, price elasticity |

Source: Core Energy Group, Demand, Energy and Customer Forecasts - Envestra Limited - Gas Access Arrangement Review - Victoria and Albury Networks (2013 to 2017), March 2012, p. 17-19.

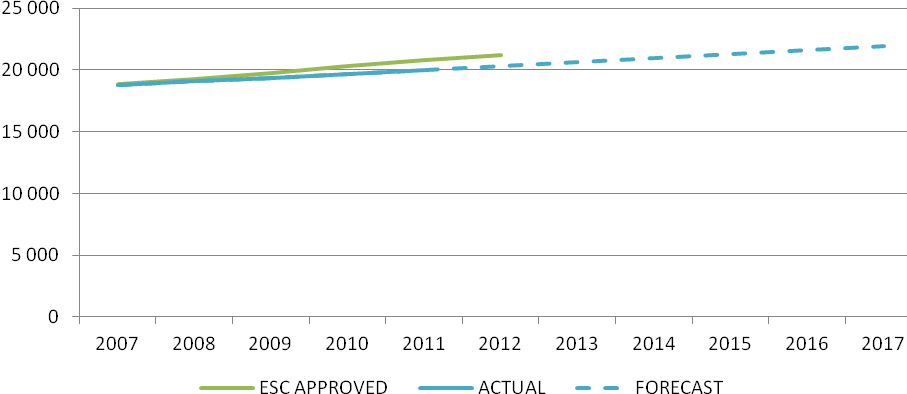
Figure 9.1 to Figure 9.6 illustrate Envestra's proposed demand forecasts.

* + - 1. Envestra Victoria – Tariff V residential and non-residential customer numbers, approved, actual and forecast 2007 to 2017



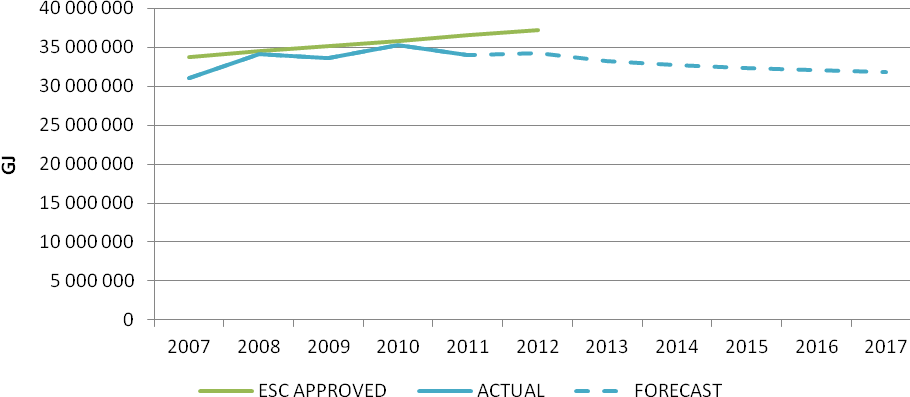
Source: Envestra Victorian, Access arrangement information, 30 March 2012, p. 187-210.; and Envestra Victorian, Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, March 2008, Chapter 11,

* + - 1. Envestra Albury – Tariff V residential and non-residential customer numbers, approved, actual and forecast 2007 to 2017



Source: Envestra Albury, Access arrangement information, 30 March 2012, p. 171-190.; and Envestra Albury, Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, March 2008, Chapter 11,

* + - 1. Envestra Victoria – Tariff V residential and non-residential consumption, approved, actual and forecast 2007 to 2017



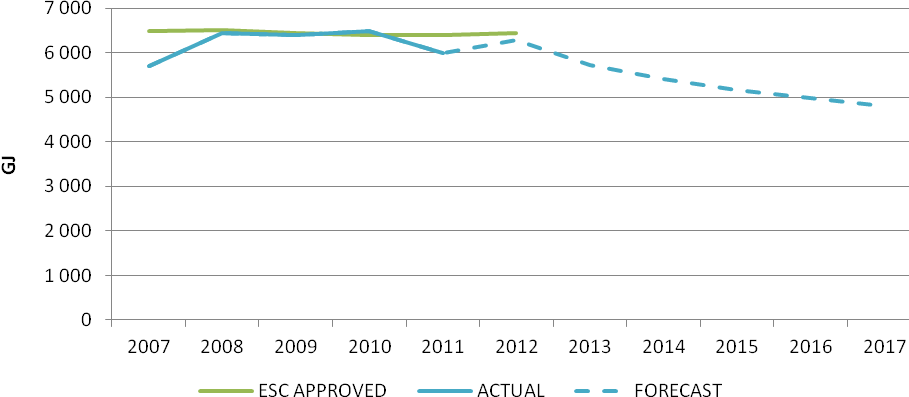
Source: Envestra Victorian, Access arrangement information, 30 March 2012, p. 187-210.; and Envestra Victorian, Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, March 2008, Chapter 11

* + - 1. Envestra Albury – Tariff V residential and non-residential consumption, approved, actual and forecast 2007 to 2017



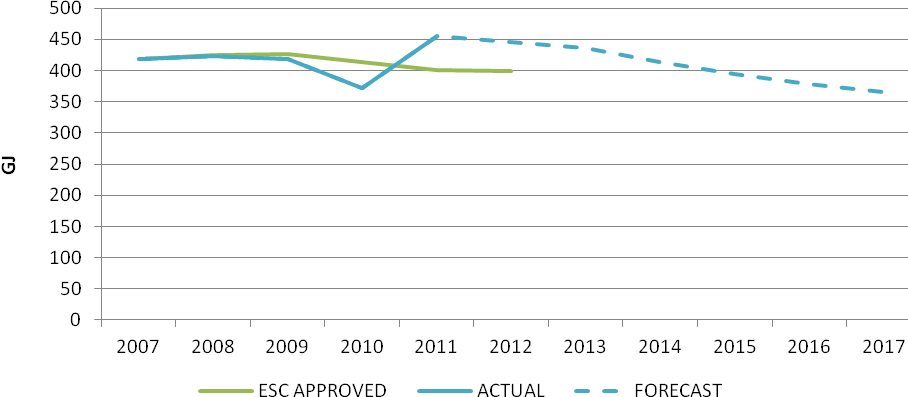
Source: Envestra Albury, Access arrangement information, 30 March 2012, p. 171-190.; and Envestra Albury, Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, March 2008, Chapter 11.

* + - 1. Envestra Victoria – Tariff D maximum hourly quantities (MHQ), approved actual and forecast 2007 to 2017



Source: Envestra Victorian, Access arrangement information, 30 March 2012, p. 187-210.; and Envestra Victorian, Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, March 2008,Chapter 11.

* + - 1. Envestra Albury – Tariff D maximum hourly quantities (MHQ), approved, actual and forecast 2007 to 2017



Source: Envestra Albury, Access arrangement information, 30 March 2012, p. 171-190.; and Envestra Albury, Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, March 2008, Chapter 11.

* 1. AER approach

The NGR require a full access arrangement proposal for a distribution pipeline to include usage of the pipeline over the earlier access arrangement period showing:

* minimum, maximum and average demand; and customer numbers in total and by tariff class[[661]](#footnote-661)
* to the extent that it is practicable to forecast pipeline capacity and utilisation of pipeline capacity over the access arrangement period, a forecast of pipeline capacity and utilisation of pipeline capacity over that period and the basis on which the forecast has been derived.[[662]](#footnote-662)

In making a decision to approve or not to approve an access arrangement, the AER must be satisfied that the forecasts used in setting reference tariffs:[[663]](#footnote-663)

* are arrived at on a reasonable basis
* represent the best forecast or estimate possible in the circumstances.

The AER considers that there are two important considerations in assessing whether demand forecasts are arrived at on a reasonable basis and whether they represent the best forecasts possible in the circumstances.[[664]](#footnote-664) These are:

* the appropriateness of the forecast methodology – this involves consideration of how the demand forecast has been developed and whether or not all relevant factors have been taken into account.
* the application of the forecasting methodology – this involves consideration of the accuracy of data and assumptions on each of the input parameters.

To determine whether Envestra's proposed demand forecasts are arrived at on a reasonable basis and are the best possible forecasts in the circumstances, the AER reviewed the data used to implement the forecasting methodology. In doing this, the AER had regard to other broader trends of demand forecasts such as recent trends in gas consumption and peak demand relative to expectations at the time the forecasts for the 2008–12 access arrangement were made. The AER then compared actual system performance (gas delivery and peak demand by customer class) during the 2008–12 access arrangement period with forecast demand for the 2008–12 access arrangement period.

The AER engaged ACIL Tasman (ACIL) to advise on Envestra's demand forecasts, and to assist the AER develop alternative demand forecasts where the AER is not satisfied that forecasts comply with the requirements of the NGR.

In making its draft decision, the AER relied on:

* information provided by Envestra as part of its proposed access arrangement; specifically, Envestra's consultant report on demand forecast, demand forecast spreadsheets, access arrangement information, the regulatory information notice (RIN) pro forma.
* additional information provided by Envestra in response to the AER's information requests
* a report provided by ACIL [[665]](#footnote-665)
* submissions received over the course of consulting on the access arrangement proposal.[[666]](#footnote-666)
  1. Reasons for draft decision

The AER approves Envestra's forecasting methodology as a reasonable basis for determining its forecasts. However, the AER does not approve the proposed demand forecasts. In applying its forecasting methodology, Envestra used some assumptions and data sets that have biased the modelling results. In particular, for weather normalisation:

* estimates of Effective Degree Day (EDD) used by Envestra resulted in demand forecasts that are biased
* the heating degree days (HDD) data used by Envestra for its Albury network is not the most current data available.

The AER considers that Envestra's proposed demand forecasts are not arrived at on a reasonable basis and do not represent the best forecasts possible in the circumstances. The reasons for the AER's decision are discussed below.

* + 1. Minimum, maximum and average demand

Under the NGR, Envestra's access arrangement information must include minimum, maximum and average demand for the earlier access arrangement.[[667]](#footnote-667) The AER considers that the information contained within the AAI and the RIN pro forma satisfy the requirement of r. 72(1)(a)(iii)(A) of the NGR. The AER also considers that the total customer numbers as shown in the access arrangement information and the breakdown by tariff class as shown in the RIN pro forma satisfy the requirement of r. 72(1)(a)(iii)(B) of the NGR.

* + 1. Forecast pipeline capacity and utilisation

Rule 72(1)(d) of the NGR requires that, to the extent practicable, the access arrangement information should include forecast pipeline capacity and utilisation of pipeline capacity over the access arrangement period. Envestra did not provide information on pipeline capacity and utilisation. The AER understands that a distribution network is a meshed network made up of interconnected pipes, and there are a number of practical considerations governing why the calculation of utilisation is not straightforward.

* + 1. Forecasting methodology

Envestra's consultant Core outlined a six step approach to forecast gas demand. One of the steps was to identify key factors that are likely to drive gas demand. To do this, Core adopted a method which assumes that the combined effect of individual drivers of demand is largely represented in the linear trend of weather adjusted historic data. Core submitted that it was not practical to separately estimate the effect of each demand driver due to data limitations (small number of observations).[[668]](#footnote-668) Core submitted that in developing Envestra's proposed demand forecasts, it focused on transparency and repeatable process (i.e. process that can be replicated). The AER understands that the small sample size available to and used by Core made it impracticable for Core to produce reliable estimates of the effect of each gas demand driver.

ACIL reviewed each of the six steps of Core's forecast methodology. It identified a number of issues with Core's methodology that have the potential to introduce bias and distort the results.[[669]](#footnote-669) These issues include:

* simultaneity problem - the two step approach to forecasting gas assumes prices of gas will remain constant throughout the forecast period
* non-linearities in demand
* absence of dynamics and price elasticities in estimation
* potential for spurious correlation and stationarity testing
* omitted variable bias
* degrees of freedom
* discrete dependent variable.

ACIL reviewed each of these issues to determine how they could be addressed and whether addressing these would improve Envestra's forecasting methodology.[[670]](#footnote-670) ACIL stated that given the short time series of data available and the difficulty in estimating the regression coefficients for Envestra's gas demand function, it is not clear that a more rigorous approach would necessarily result in a more reliable forecast. ACIL considered that in the current circumstances the approach used by Core to develop Envestra's proposed demand forecasts is acceptable[[671]](#footnote-671). The AER accepts ACIL's conclusion and considers that an attempt to improve the model (in terms of either the range of explanatory variables included or the estimates of the demand coefficients) is impracticable. In this context, and given Envestra's transparency in relation to its approach, the AER accepts that the methodology used to forecast the proposed demand is arrived at on a reasonable basis.

* + 1. Application of the forecast methodology

The AER considers that the proposed demand forecasts are not the best forecasts possible in the circumstances.[[672]](#footnote-672) This is because some assumptions and data sets used in applying Envestra's forecasting methodology have biased and distorted the modelling results. This section outlines the AER's reasons for its conclusion that the inputs and assumptions used by Envestra result in forecasts which are not consistent with r. 74(2) of the NGR.

Weather normalisation of historical data

There is a strong relationship between gas demand and climate. Lower than normal temperatures increase gas demand for residential heating. Therefore, the AER recognises the need to adjust actual gas consumption to ensure that one-off events do not unduly bias demand forecasts.

Envestra's forecasts account for the impact that weather has on gas demand through a process of weather normalisation. Envestra applied a different measure of weather normalisation for each of its distribution networks. These are discussed below.

Victorian distribution network

For its Victorian network, Envestra used measures of annual effective degree days (EDD) derived by the CSIRO to normalise historical gas consumption data.[[673]](#footnote-673) The CSIRO's analysis reveals a warming trend over the past 60 years for Victoria.[[674]](#footnote-674) Envestra accounted for this warming trend by assuming that 'normal' weather is reflected by the CSIRO's medium anthropogenic global warming projection. This assumption implies that there is a 50 per cent probability for 'normal' weather conditions to be exceeded between 2005 and 2010.[[675]](#footnote-675)

ACIL reviewed Envestra's approach to weather normalisation for the Victorian network by assessing the data used and assumptions made.[[676]](#footnote-676) ACIL noted that the key issue with Envestra's approach related to the assumption about normal weather between 2005 and the 2011.[[677]](#footnote-677) ACIL identified that Envestra's forecasts are based on a projection of EDD between 2005 and 2011.[[678]](#footnote-678) ACIL stated that this approach is unusual and that a more appropriate approach would be to base an assumption about normal weather conditions on historical data. [[679]](#footnote-679) Such historical data was published by AEMO following its 2012 review of weather standards for gas forecasting.[[680]](#footnote-680)

In its review of Envestra's proposed demand forecasts, ACIL compared CSIRO's EDD (projections) and AEMO's EDD (historical). CSIRO data cover the period 1950 to 2011, of which data points between 2005 and 2011 are based on a projection. AEMO data cover the period 1970 to 2011 – all data points are based on actual observations.[[681]](#footnote-681) ACIL found that the CSIRO's projection results in a higher EDD value relative to the AEMO's EDD (see Figure 9.7).

* + - 1. Comparison of CSIRO EDD projections with AEMO EDD trended values

|  |
| --- |
|  |

Source: ACIL Tasman, Review of Demand Forecasts for Envestra Victoria - Victorian Gas Access Arrangement for the period 2013-2017, August 2012, p. 30.

While AEMO and CSIRO's series show a decline in EDD, the difference between the two series is that the CSIRO’s projection starts from a lower base. The effect of using a lower EDD trend based on the CSIRO forecast results is that the demand forecasts are on average lower than if the AEMO regression line was used as the basis of weather normalisation.[[682]](#footnote-682)

In its submission, the EUCV noted that the demand forecasts proposed by the Victorian gas distribution businesses could be understated.[[683]](#footnote-683) The EUCV submitted that AEMO's gas consumption forecasts show a slight increase in consumption in contrast to the forecasts proposed by the distribution businesses. However, the EUCV acknowledged that some of the discrepancy could be explained by gas to power generation and exports to adjacent regions. AEMO's forecasts relate to the Victorian transmission system (VTS). The AER understands that the remaining discrepancy is likely to be explained by the fact that some customers obtain their gas supply through a direct connection to the VTS. The volume of gas supply through a direct connection to the VTS is not captured by the distribution networks.

The AER accepts ACIL's findings on weather normalisation.[[684]](#footnote-684) The AEMO's data for the six years to 2011 are based on actual observations (not on a projection as in the CSIRO's data). The AER considers that the AEMO's series is a reasonable basis and represents the best estimates possible under the circumstances. For this reason, it is appropriate for Envestra to use the current AEMO EDD standard as the basis for weather normalising the historical data. The use of AEMO data to weather normalise historic gas demand will increase Envestra's proposed tariff V demand forecasts by approximately 1.2 per cent. The AER requires Envestra Victoria to amend its demand forecasts as outlined in the revisions section below.

Albury distribution network

Envestra used measures of annual heating degree days (HDD) instead of EDD to normalise historical gas consumption because of the lack of weather data for Albury.[[685]](#footnote-685) The HDD are recorded by the Bureau of Meteorology (BoM) at Albury Airport. At the time of preparing Envestra's access arrangement proposal, this data was available from 1994 to 2010.[[686]](#footnote-686)

The AER notes that AEMO's preferred measure for weather normalisation is EDD.[[687]](#footnote-687) However, given the absence of such data, the AER accepts the use of HDD to weather normalise Albury's historical gas demand. In its review of the demand forecasts proposed by Envestra , ACIL attempted to replicate Core's weather normalisation using the BoM data which Core referenced as the basis of the weather normalisation calculation. ACIL identified that 11 observations were missing. The AER requested Envestra to explain how it imputed the missing temperature data as the Core model did not show missing data or zero values for HDD on the relevant days.[[688]](#footnote-688) In response, Envestra submitted that Core substituted missing Albury temperature data by using an average of days on either side of the missing data point.[[689]](#footnote-689) The AER accepts that this approach is an acceptable method for imputing the missing temperature data.

ACIL also noted that the rate of change in HDD is sensitive to the length of the input data set. Core’s analysis was based on data from January 1994 to December 2010. The BoM has now added data for 2011. The AER understands that the lack of incorporation of the 2011 data reflects the fact that Core’s analysis was done before the end of 2011.[[690]](#footnote-690) The AER considers that it is necessary to rely on the most recent and accurate data to produce a gas demand forecast that complies with r. 74(2) of the NGR. The AER has requested Envestra to adjust its demand forecasts for the Albury distribution network to account for the HHD data in 2011.

Tariff D aggregate MHQ

The proposed maximum hourly quantities (MHQ) for tariff D customers exhibit a declining trend that accelerates towards to the end of 2013–17 access arrangement period (Figure 9.5 and Figure 9.6). Envestra did not provide evidence of policy changes or other factors that would justify the steep decline in Envestra's proposed forecasts for tariff D aggregate MHQ. The AER sought clarification on the matter and requested Envestra to re-estimate its tariff D MHQ forecasts taking into account the revised weather normalisation (discussed above).[[691]](#footnote-691) In response, Envestra submitted that the declining trend of the proposed MHQ for tariff D customers can be explained by the effect of:[[692]](#footnote-692)

* the introduction of a carbon cost following passage of the Clean Energy Bill 2011, and
* wholesale gas price increases.

Envestra provided the outcome of its analysis of MHQ for tariff customers in the form of a spreadsheet.[[693]](#footnote-693) The AER notes that none of the above effects are incorporated into historical trends. The AER considers that Envestra's assumptions on carbon costs and wholesale gas prices are arrived at on a reasonable basis.

* + 1. Other issues

Impact of network development and extensions on demand forecasts

Envestra proposed a network development program to address the trend decline in gas usage.[[694]](#footnote-694) To support the proposed network development program, Envestra included a line item in its proposed opex. The AER has reduced the proposed opex related to network development (Attachment 6). The AER has also reduced the proposed capex related to network extensions (Attachment 3). Accordingly, the AER requires Envestra to reflect the impact of this reduction in opex and capex on its demand forecasts. The revision to demand forecasts outlined below account for this adjustment.

Based on all the above reasons, the AER does not approve the proposed demand forecasts, and considers that the revised forecasts below are the best forecast possible in the circumstances.

* 1. Revisions

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

Revision 9.1: Amend the Victorian network access arrangement information to delete table 13.23 and replace with the following:

* + - * 1. AER draft decision for Envestra's Victorian Network

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Residential tariff V |  |  |  |  |  |
| Customer numbers | 565 938 | 577 776 | 589 722 | 601 384 | 613 288 |
| Demand (TJ) | 26 852 | 26 555 | 26 297 | 26 204 | 25 827 |
| Non–residential tariff V |  |  |  |  |  |
| Customer numbers | 22 950 | 23 136 | 23 307 | 23 413 | 23 612 |
| Demand (TJ) | 6 234 | 6 062 | 5 911 | 5 791 | 5 704 |
| Tariff D |  |  |  |  |  |
| Customer numbers | 281 | 283 | 285 | 288 | 290 |
| Demand - MHQ (GJ) | 5 721 | 5 420 | 5 176 | 4 983 | 4 808 |

Source: AER analysis

Revision 9.2: Amend the Albury network access arrangement information to delete table 13.20 and replace with the following:

* + - * 1. AER draft decision for Envestra's Albury Network

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Residential tariff V |  |  |  |  |  |
| Customer numbers | 19 700 | 20 022 | 20 348 | 20 680 | 21 018 |
| Demand (TJ) | 849 | 847 | 848 | 850 | 853 |
| Non–residential tariff V |  |  |  |  |  |
| Customer numbers | 889 | 892 | 895 | 897 | 900 |
| Demand (TJ) | 230 | 223 | 218 | 214 | 211 |
| Tariff D |  |  |  |  |  |
| Customer numbers | 10 | 9 | 9 | 9 | 9 |
| Demand - MHQ (GJ) | 355 | 336 | 321 | 308 | 297 |

Source: AER analysis

1. Tariff setting

This attachment outlines the AER’s assessment of the reference tariffs proposed by Envestra against the requirements of the NGR, specifically rr. 93 and 94. The AER's assessment focuses on the structure of reference tariffs. The AER's assessment takes into account the revenue and pricing principles including ss. 24(2) and 24(5) of the NGL.

* 1. Draft decision

The AER approves Envestra's proposed restructure of reference tariffs for the 2013–17 access arrangement period. The AER is satisfied the proposed structure of the reference tariffs complies with the requirements under rr. 93 and 94 of the NGR.

However, the AER, taking into account the revenue and pricing principles, considers that the quantum of the proposed reference tariffs must be amended as set out in revision 1.3 of attachment 11 of this draft decision. This revision is required to reflect the changes to forecast total revenue and forecast demand. The reasons for the AER's decision are discussed in detail below.

* 1. Envestra Victoria's proposal

Envestra proposed three changes to its current reference tariff structure:

* distinction between tariff V residential and tariff V non–residential[[695]](#footnote-695)
* removal of seasonal pricing (peak/off peak) for tariff V customers (residential and non–residential)[[696]](#footnote-696)
* change to the volume steps for all customers and further distinguish the steps between commercial and domestic customers (Table 10.1). Envestra also proposed to add greater weight to fixed charges in most of its pricing zones (Envestra has 5 pricing zones, including Albury).[[697]](#footnote-697)

* + - * 1. Envestra - Reference Tariff V – consumption bands

|  |  |
| --- | --- |
| Current consumption bands (2008–12) | Proposed consumption bands (2013–17) |
| Tariff V residential | |
| First 0.1GJ | First 0.0274GJ |
| Next 0.1 GJ | Next 0.0219GJ |
| Next 1.2GJ | Balance |
| Balance |  |
| Tariff V non–residential | |
| First 0.1GJ | First 0.05GJ |
| Next 0.1 GJ | Next 0.50GJ |
| Next 1.2GJ | Next 0.82GJ |
| Balance | Balance |

Source: Envestra Victorian, Regulatory Information Notice; Envestra Victorian, Access arrangement information, 30 March 2012, p. 214; Envestra Albury, Regulatory Information Notice; Envestra Albury, Access arrangement information, 30 March 2012, p. 194.

The reference tariffs proposed by Envestra are outlined in Table 10.2. The proposed tariff classes directly reflect Envestra's proposed reference services. Attachment 1 of this draft decision discusses the proposed reference services.

Envestra proposed to maintain its current ancillary reference service tariffs.[[698]](#footnote-698) For the Victorian gas network, Envestra also proposed to recover carbon tax related costs through a separate carbon tax tariff, which will be determined following the AER's approval of a cost pass through application.[[699]](#footnote-699)

* + - * 1. Envestra's proposed reference services, tariff classes and tariff parameters: 2013–17 access arrangement period

|  |  |  |
| --- | --- | --- |
| Reference services | Tariff class | Tariff parameters |
| Residential haulage reference services | Tariff V residential – Central zone  Tariff V residential – Northern zone  Tariff V residential – Murray Valley zone  Tariff V residential – Bairnsdale zone  Tariff V residential – Albury zone | All residential tariff V are made up of fixed and stepped variable usage charges |
| Non–residential haulage reference services | Tariff V non–residential – Central zone  Tariff V non–residential – Northern zone  Tariff V non–residential – Murray Valley zone  Tariff V non–residential – Bairnsdale  Tariff V non–residential – Albury zone  Tariff D non–residential Central zone  Tariff D non–residential Murray Valley zone  Tariff D non–residential Bairnsdale zone  Tariff D non–residential Albury zone | All non–residential tariff V are made up of fixed and stepped variable usage charges  All non–residential tariff D are made up of stepped variable demand charges |
| Ancillary reference services | Meter and Gas Installation Test  Disconnection  Reconnection  Meter removal  Meter reinstallation  Special meter read | Fixed charge |

Source: Envestra Victorian, Access arrangement information, 30 March 2012, p. 183; p. 206 and p. 203–212; Envestra Albury, Access arrangement information, 30 March 2012, p. 193–196.

* 1. AER approach

In a full access arrangement, a service provider is required to specify for each reference service the reference tariff, the proposed approach to the setting reference tariffs.[[700]](#footnote-700) This is done by:

* explaining how revenues and costs are allocated, including the relationship between costs and tariffs [[701]](#footnote-701)
* defining the tariff classes[[702]](#footnote-702)
* comparing the revenue to be raised by each reference tariff with the cost of providing each individual reference service[[703]](#footnote-703)
* explaining any pricing principles it employed[[704]](#footnote-704)
* describing any pricing principles it employed.[[705]](#footnote-705)

The AER is required to assess Envestra's proposed reference tariffs. Where the AER does not approve Envestra's proposal, the AER must determine the initial reference tariffs.

In its assessment of Envestra's proposed reference tariffs, the AER considered the:

* information provided by Envestra, particularly:
* the access arrangement information (AAI) – this document provides details of Envestra's reference tariffs, including pricing principles, re-balancing constraints and information demonstrating the economic efficiency of Envestra reference tariffs
* Part B of Envestra's access arrangement – this document sets out Envestra's reference tariffs and reference tariff policy[[706]](#footnote-706)
* tariff neutrality model – this model shows that Envestra's 2012 tariff V in the proposed structure is revenue neutral relative the approved 2012 tariffs[[707]](#footnote-707)
* the cost allocation model – this model sets out the method used by Envestra for the attribution of direct costs and the allocation of shared costs to, and between, its categories of gas distribution services
* additional information provided by Envestra in response to the AER's information requests
* submissions received in the course of consulting on the access arrangement proposal.

Identifying the reference service

The NGR require Envestra to specify a reference tariff for each reference service.[[708]](#footnote-708) In assessing Envestra's proposed reference tariffs, the AER first considers what is (or are) the reference service(s) for the purposes of r. 101 of the NGR. The AER's draft decision on what constitutes the reference services is set out in attachment 1

Assessing the tariff setting methodology for the reference service

The reference tariffs for a full access arrangement must be designed to meet the requirements of rr. 93 and 94 of the NGR. The AER has full discretion under rr. 93 of the NGR and limited discretion under r. 94 of the NGR.[[709]](#footnote-709)

The AER considered how Envestra intends to charge for reference services. Firstly, the AER assessed how Envestra intends to allocate costs and revenues between reference services and other services. Rule 93 of the NGR requires a service provider to demonstrate that total revenue is allocated between reference and other services in the ratio in which costs are allocated between reference and other services.[[710]](#footnote-710)

Secondly, the AER assessed how Envestra grouped its customers into tariff classes.[[711]](#footnote-711) Rule 94(1)-(2) of the NGR requires that a tariff class group together customers for reference services on an economically efficient basis and to avoid unnecessary transaction costs. The AER considered that customer connection and usage characteristics are reasonable cost drivers within a service providers gas distribution system. The grouping of customers with similar connection and usage characteristics in the same tariff class reveals consistency with r. 94(1)–(2) as this approach is likely to be economically efficient and avoid unnecessary transaction costs.

Thirdly, for the purpose of compliance with r. 94(3)–(4) of the NGR, the AER assessed:

* how the expected average revenue of a tariff class compares with the stand alone cost and avoidable cost of providing the reference service to that tariff class[[712]](#footnote-712)
* whether the tariff takes into account transaction costs associated with the tariff[[713]](#footnote-713)
* whether the tariffs take into account the long run marginal costs of reference services[[714]](#footnote-714)
* whether customers belonging to the relevant tariff class are able or likely to respond to price signals.[[715]](#footnote-715)
  1. Reasons for draft decision

The AER approves Envestra's proposed reference tariff structure. The AER considers the proposed structure of reference tariffs complies with the requirements of the NGR. However, the AER considers that the proposed initial reference tariffs must be amended as set out in the revisions section of attachment 11. This revision is required to reflect the changes to forecast total revenue and forecast demand. The changes in total revenue are outlined in the revenue section of this draft decision and the changes to forecast demand are outlined in attachment 9 of this draft decision.

The NGR do not prevent service providers from restructuring tariffs at the access arrangement review. However, any tariff structure must comply with broad principles, which include:

* the principles guiding the division of customers into tariff classes[[716]](#footnote-716)
* tariffs should be on or between stand alone and avoidable cost[[717]](#footnote-717)
* tariff components reflect long run marginal cost[[718]](#footnote-718)
* consideration be given to transaction costs and whether customers can respond to price signals.[[719]](#footnote-719)

This section sets out the reasons for the AER's decision under the following headings:

* the allocation of revenues and costs to reference tariffs
* the establishment of tariffs classes
* tariff classes and revenue limits

The Energy Users Coalition of Victoria (EUCV) submitted that there was a significant increase in the level of the proposed reference tariffs compared with the approved level under the ESC. The EUCV noted that all of the distribution businesses have attributed the higher tariffs to the combination of increased claims for rates of return, higher capex and opex claims and an expected reduction in the consumption of gas.[[720]](#footnote-720) The EUCV further noted that great care is required in assessing whether the reference tariffs are cost reflective, citing that it was unable to make its own assessment due to information asymmetry.[[721]](#footnote-721)

The AER has considered the EUCV submissions in making this draft decision on Envestra's proposed reference tariffs.

* + 1. Allocation of revenues and costs to reference tariffs

The AER is satisfied that Envestra's proposed allocation of total revenue and costs between reference services and other services complies with r. 93(1)–(2) of the NGR for the following reasons:

* Envestra submitted that the costs set out in its access arrangement information relate only to reference services (including reference ancillary services) and that these costs are allocated between the two reference services provided by Envestra.[[722]](#footnote-722) Costs incurred in providing non–reference services are not included in the access arrangement information because they are directly recovered from the particular customers requesting the service.[[723]](#footnote-723) The reference services provided by Envestra are further discussed in attachment 1 of this draft decision. The AER reviewed Envestra's costs allocation and it is satisfied that the approach to allocating costs between reference services and non–reference services is consistent with r. 93(1)-(2) of the NGR.
* The AER reviewed Envestra's costs allocation model (CAM).[[724]](#footnote-724) This model shows how costs are allocated between the two reference services provided by Envestra.[[725]](#footnote-725) The CAM also allocates the building block revenue components to each tariff class based on a combination of cost allocators, which include asset values, customer numbers and consumption.[[726]](#footnote-726) The AER is satisfied that Envestra's costs and revenue allocation approach is consistent with r. 93(1)-(2) of the NGR.
  + 1. Establishment of tariff classes

Rules 94(1)–(2) of the NGR set out the requirements for tariff classes for a distribution pipeline. The AER assessed the proposed structure of reference tariffs against these requirements and also assessed the impact of the proposed changes on customers. The results of the AER's assessment are outlined below.

Distinction between residential and non–residential customers

Envestra proposed to split its tariff V customers into residential and non–residential tariff V customers.[[727]](#footnote-727) Envestra proposed a similar distinction during the 2011 Envestra South Australia review which was accepted by the AER.[[728]](#footnote-728) Other Victorian gas service providers, specifically Multinet and SP AusNet, already have such a split in their tariffs. The AER considers that the distinction between tariff V residential and non–residential customers is likely to be more economically efficient because the consumption profile of these customers groups is likely to be driven by different factors. Further, the proposed split of tariff V customers is likely to promote greater cost reflectivity. Therefore, the AER is satisfied that the proposed split of tariff V customers into residential and non–residential is consistent with r. 94(1)–(2).

Removal of peak and off peak tariffs

Envestra proposed to remove the distinction between peak and off peak charging for tariffs V residential and non–residential.[[729]](#footnote-729) Envestra submitted that customers cannot respond to these price signals.[[730]](#footnote-730) The AER considers that seasonal based pricing is unlikely to provide significant price signals to customers. It is impossible for the vast majority of customers to shift consumption to other seasons, although they may curtail consumption to some degree during peak seasons due to higher tariffs. However, this incentive to shift consumption is weakened by Envestra’s proposed restructuring of the volume steps (discussed below). The proposed restructuring of the volumes steps has a bigger impact on prices than the rationalisation of peak and off peak tariffs. The AER considers that Envestra's proposed rationalisation of tariff V is likely to simplify tariffs and reduce transaction costs (for example, menu costs) to some degree, and is therefore consistent with rr. 94(2) and 94(4)(b)(i). The AER is satisfied that, in designing the proposed reference tariffs, Envestra had regard to the ability of customers to respond to price signals as required under r. 94(4)(b)(ii) of the NGR.

Tariff steps and fixed charges

Envestra proposed to change the volume steps for all customers and further distinguished the steps between residential and non–residential customers as shown in Table 10.1. Envestra also added greater weight to fixed charges in most of its pricing zones.[[731]](#footnote-731) Envestra submitted that these changes better reflect the nature of the costs it incurs.[[732]](#footnote-732) The outcome of these changes is that the steps now begin at lower volumes of consumption than previously. Envestra also proposed a significant increase to the tariffs associated with the initial steps.[[733]](#footnote-733) The AER understands that Envestra’s proposal is designed to introduce more cost reflective tariffs structures at the small customer level. This approach is similar to that of Envestra in South Australia and Queensland, as approved by the AER.[[734]](#footnote-734)

The AER considers that the proposed steps are not inconsistent with the requirements of r. 94 of the NGR. In particular, the tariff steps can be considered to reflect long run marginal costs at each of the different consumption levels. Envestra proposed to change targets cut-off points in the steps that relate to particular customer profiles (Table 10.1). This is consistent with r. 94(4)(a) of the NGR.

Impacts of proposed changes for small customers

Envestra stated that for smaller customers, its restructured tariffs now deliver annual bills more in line with, but still lower than, other gas service providers. It also stated that the charges are more reflective of costs.[[735]](#footnote-735) The AER analysed the bill impact of the proposed changes on small customers with annual consumption of 10 GJ (top of first step), 18 GJ (top of second step) and 28 GJ (10GJ into the third step). Envestra submitted that such consumption levels would represent a customer with gas cooker only (10 GJ) and a customer with gas cooker and gas hot water system (18GJ).[[736]](#footnote-736) Consumption of greater than 18GJ per annum would pick up customers using gas for space heating.[[737]](#footnote-737) The AER's analysis focused on zones with the bulk of customers, namely Central (82 per cent of all customers) and North Victoria (12 per cent of all customers). The annual bill impacts of the proposed restructure are shown in Table 10.3.

* + - * 1. Annual bill impacts of tariff restructure

|  |  |  |  |
| --- | --- | --- | --- |
| Envestra: Central Vic - 82% of total customers | |  |  |
| Consumption level (GJ pa) | Approved 2012 tariffs | Restructured 2012 tariffs | Change |
| 10 | $106 | $133 | $28 |
| 18 | $154 | $182 | $28 |
| 28 | $215 | $216 | $0 |
| Envestra: North Vic - 12% of total customers | |  |  |
| Consumption level (GJ pa) | Approved 2012 tariffs | Restructured 2012 tariffs | Change |
| 10 | $96 | $123 | $27 |
| 18 | $137 | $165 | $29 |
| 28 | $188 | $194 | $7 |

Source: AER analysis

Envestra submitted that 23 per cent of residential customers fall within the first two steps under the revised structure.[[738]](#footnote-738) This suggests about a quarter of all residential customers will experience an annual bill increase of about $30 based on this tariff restructuring alone. Small residential customers in the Envestra pricing zone of Bairnsdale (which has less than one per cent of all customers) will be most significantly affected with those consuming 10GJ or 18 GJ per annum experiencing around a $40 annual bill increase.[[739]](#footnote-739)

The AER compared Envestra's restructured 2012 bills against the 2012 residential customers' bills for SP AusNet’s and Multinet’s tariff V residential customers. These results indicate that Envestra’s charges, despite the restructure, are still comparable with the other service providers, at least for those zones with the bulk of customers (Table 10.4).[[740]](#footnote-740)

* + - * 1. Annual bills (residential customers)–SP AusNet and Multinet customers

|  |  |
| --- | --- |
| Multinet: Metro - 97 per cent of total customers | |
| Consumption level (GJ pa) | Approved 2012 tariffs |
| 10.00 | $132 |
| 18.00 | $188 |
| SP AusNet: Central - Majority of customers | |
| Consumption level (GJ pa) | Approved 2012 tariffs |
| 10.00 | $123 |
| 18.00 | $193 |

Source: AER analysis

* + 1. Tariff classes and revenue limits

The AER is satisfied that Envestra's proposed reference tariffs are consistent with the NGR requirements.[[741]](#footnote-741) The NGR provide that reference tariffs for each tariff class should lie on or between the stand alone cost of providing the reference service to customers who belong to that class and the avoidable cost of not providing the reference service to those customers.[[742]](#footnote-742)

The AER reviewed Envestra's definitions of avoidable and stand alone costs for residential, non–residential and demand tariff classes and considers that they are acceptable for assessing compliance with rule 94(3). Envestra demonstrated that for each tariff within the tariff V and tariff D classes, the expected tariff revenue lies on or between the avoidable and stand alone costs (Table 10.5 and Table 10.6). The AER notes that it reviewed the stand alone and avoidable costs for Tariff V split by residential and   
non–residential customers, although this information has been aggregated in the below tables for confidentiality reasons.

* + - * 1. Envestra Victoria – avoidable, expected and stand alone costs (excluding GST, $2013 million)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tariff class | Avoidable costs | Weighted average revenue | Stand alone coast | Compliance with rule 94(3) |
| Tariff V – Central | 14.20 | 165.65 | 185.33 | Yes |
| Tariff V – North | 1.94 | 19.67 | 53.60 | Yes |
| Tariff V – Murray Valley | 0.23 | 1.76 | 34.54 | Yes |
| Tariff V – Bairnsdale | 0.08 | 1.15 | 33.41 | Yes |
| Tariff D – Central/North | 0.00 | 3.97 | 16.42 | Yes |
| Tariff D – Murray Valley | 0.00 | 0.11 | 16.42 | Yes |
| Tariff D – Bairnsdale | 0.00 | 0.04 | 16.42 | Yes |
| Meter and gas installation test | 0.00 | 0.01 | 0.01 | Yes |
| Disconnection test | 0.00 | 0.45 | 0.45 | Yes |
| Reconnection | 0.00 | 0.50 | 0.50 | Yes |
| Meter removal | 0.00 | 0.17 | 0.17 | Yes |
| Meter reinstallation | 0.00 | 0.01 | 0.01 | Yes |
| Special meter reads | 0.00 | 1.25 | 1.25 | Yes |

Source: Envestra Victorian, Access arrangement information, 30 March 2012, p.218.

* + - * 1. Envestra Albury – avoidable, expected and stand alone costs (excluding GST, $2013 million)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tariff class | Avoidable costs | Weighted average revenue | Stand alone coast | Compliance with rule 94(3) |
| Tariff V | 0.51 | 6.05 | 7.72 | Yes |
| Tariff D | 0.00 | 0.25 | 1.60 | Yes |
| Meter and gas installation test | 0.00 | 0.00 | 0.00 | Yes |
| Disconnection test | 0.00 | 0.05 | 0.05 | Yes |
| Reconnection | 0.00 | 0.05 | 0.05 | Yes |
| Meter removal | 0.00 | 0.01 | 0.01 | Yes |
| Meter reinstallation | 0.00 | 0.00 | 0.00 | Yes |
| Special meter reads | 0.00 | 0.05 | 0.05 | Yes |

Source: Envestra Albury, Access arrangement information, 30 March 2012, p.198.

* 1. Revisions

Before the access arrangement can be approved, SP AusNet must amend the proposed reference tariffs as outlined below.

Revision 10.1: Amend Annexure B of the access arrangement proposal as indicated in revision 11.3 of attachment 11

1. Tariff variation mechanism

This attachment sets out the AER’s consideration of the reference tariff variation mechanism proposed by of Envestra. 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
  1. Draft decision

The AER does not approve Envestra's proposed tariff variation mechanism for the 2013–17 access arrangement period. The AER considers that some elements of Envestra's proposed tariff variation mechanism are not consistent with the NGL and the NGR or that there are alternatives to some elements of the proposal that better meet the purpose of the NGR and NGL. In particular, the AER considers that:

* The CPI definition, the magnitude of the rebalancing constraint, elements of the cost pass through variation mechanism and the annual reference tariff variation process are not consistent with r. 97 of the NGR regarding the mechanics of tariff variation. These proposed elements must be amended as indicated below.
* the proposed initial reference tariffs and x factors must be amended to reflect the changes to the forecast total revenue identified in the revenue section of the draft decision.
* The definition of Network User Failure Event, Tax Change Event and Insurance Cap Event require amendment.

The reasons for the AER's decision are further discussed below.

* 1. Envestra's proposal

Envestra proposed a tariff variation mechanism that is generally consistent with that of the current access arrangement other than updated values for the x factor and an increased rebalancing constraint.[[743]](#footnote-743) The proposed tariff variation mechanism includes: [[744]](#footnote-744)

* an annual reference tariff adjustment mechanism and process, which applies for each year of the access arrangement period
* a cost pass through reference tariff variation mechanism and process.
  + 1. Annual tariff variation mechanism

Haulage reference services

Envestra proposed an annual tariff variation mechanism in the form of a weighted average price cap (WAPC) formula, consistent with its current access arrangement.[[745]](#footnote-745) The proposed tariff control formula is: [[746]](#footnote-746)



where:

 is the CPI for year t[[747]](#footnote-747)

 see Table 11.1 below for different values corresponding to year/business.

 is the number of different haulage reference tariffs;

 is the different components, elements or variables ("components") comprised within a haulage reference tariff;

 is the proposed component j of haulage reference tariff i in year t;

 is the prevailing component j of haulage reference tariff i in year t-1;

 is the quantity of component j of reference tariff i sold in year t-2

 is the licence fee pass through adjustment factor for calendar year t.

 refers to the carbon tax tariff.

Envestra proposed a separate carbon tax tariff formula to recover its carbon tax costs for the Victorian distribution network.[[748]](#footnote-748)

* + - * 1. Envestra: x factors proposed for the 2013–17 access arrangement period

|  |  |  |
| --- | --- | --- |
| Year | Envestra Victoria | Envestra Albury |
| 2014 | -0.123 | -0.066 |
| 2015 | -0.073 | -0.016 |
| 2016 | -0.073 | -0.016 |
| 2017 | -0.073 | -0.016 |

Source: Envestra Victorian, Access arrangement information, 30 March 2012, p. 227 and Envestra Albury, Access arrangement information, 30 March 2012, p. 205.

The key change from Envestra's current tariff variation mechanism is an increase in the rebalancing constraint from two per cent to 10 per cent.[[749]](#footnote-749)

Ancillary services

Envestra is proposing to maintain its current tariff variation mechanism for ancillary reference services. This mechanism increases the level of ancillary reference tariffs by CPI on an annual basis.[[750]](#footnote-750)

* + 1. Cost past through tariff mechanism

Envestra proposed a number of cost pass through events.[[751]](#footnote-751) However, Envestra did not include a cost pass through adjustment factor in its proposed tariff variation formula.[[752]](#footnote-752) The cost pass through events proposed by Envestra include:[[753]](#footnote-753)

* a regulatory change event
* a service standard event
* a tax change event
* a terrorism event
* a network user failure event
* an insurer credit risk event
* an insurance cap event
* a natural disaster event

Envestra proposed no materiality threshold for these pass through events.[[754]](#footnote-754)

* + 1. Annual tariff variation process

Envestra proposed to notify the AER in respect of any reference tariff variations at least 35 business days prior to implementation.[[755]](#footnote-755) The proposed time frame includes 20 business days for the AER to approve or reject the proposed variations and 15 business days for market participants to prepare for the implementation of the new tariffs.[[756]](#footnote-756)

* 1. Assessment approach

Under the NGR, a reference tariff variation mechanism for an access arrangement:

* must be designed to equalise (in present value terms):[[757]](#footnote-757)
* forecast revenue from reference services over the access arrangement period and
* the portion of total revenue allocated to reference services for the access arrangement period
* may provide for variation of a reference tariff: [[758]](#footnote-758)
* in accordance with a schedule of fixed tariffs or
* in accordance with a formula set out in the access arrangement or
* as a result of a cost pass through for a defined event or
* by the combination of two or more of these operations

A formula for variation of a reference tariff may (for example) provide for variable caps on the revenue to be derived from a particular combination of reference services; or tariff basket price control; or revenue yield control; or a combination of all or any of these factors[[759]](#footnote-759)

A reference tariff variation mechanism must give the AER adequate oversight or powers of approval over variation of the reference tariff.[[760]](#footnote-760)

The AER is required to have regard to the following factors in deciding whether a reference tariff variation mechanism is appropriate for an access arrangement:[[761]](#footnote-761)

* the need for efficient tariff structures
* the possible effects of the reference tariff variation mechanism on administrative costs
* the regulatory arrangements (if any) applicable to the relevant reference services before the commencement of the proposed reference tariff variation mechanism
* the desirability of consistency between regulatory arrangements for similar services
* any other relevant factor.

Based on these factors, the AER considered the implications of the proposed reference tariff variation mechanism for efficient tariff structures and administrative costs of the AER, Envestra and natural gas consumers or potential consumers.[[762]](#footnote-762) The AER took into account the nature and scope of pipeline reference services to which reference tariffs are applicable. Further, the AER compared the proposed reference tariff variation mechanism arrangements with the current arrangements for the Envestra and with other recent gas distribution access decisions for consistency in approach across the provision of similar services.

Rule 97(3)(e) of the NGR provides the AER with broad discretion to take into account any factors it considers relevant in deciding whether particular mechanics for reference tariff variation are appropriate. In this context, the AER assessed the potential impacts of Envestra's proposal on incentives for pipeline operation in a manner consistent with the National Gas Objectives (NGO) and with the revenue and pricing principles (RPP).[[763]](#footnote-763) The AER considered the implications of Envestra's proposal for the allocation of operational risk amongst the pipeline operator and users of pipeline services. Further, the AER assessed the implications of Envestra's proposed reference tariff variation mechanism for effective risk management in light of the long term interests of consumers of natural gas.

The AER has full discretion in assessing Envestra's proposed reference tariff variation mechanism.[[764]](#footnote-764) Accordingly, the AER can reject a proposed element of the reference tariff variation mechanism if it considers a preferable alternative exists that complies with the requirements of the NGL and the NGR. To reach its decision, the AER, had regard to the above factors and:

* assessed whether the proposed tariff variation mechanism meets the requirements of the NGL and NGR
* considered whether an alternative to the proposed reference tariff variation mechanism would better promote the purpose of the regulatory framework.

In making its decision, the AER relied on:

* information provided by Envestra; particularly, the access arrangement information (AAI) and Part B of the proposed access arrangement – these documents provide details of Envestra's proposed price control mechanism
* additional information provided by Envestra in response to the AER's information requests
* submissions received in the course of consulting on the access arrangement proposal.
  1. Reasons for decision

The AER does not approve Envestra's proposed tariff variation mechanism for the 2013–17 access arrangement period. The AER considers that some elements of Envestra's proposed tariff variation mechanism are not consistent with the NGL or the NGR or that there are alternatives to some elements of Envestra's proposed tariff variation mechanism that better promote the purpose of the regulatory framework.[[765]](#footnote-765) The elements that the AER does not approve relate to limited aspects of Envestra's proposal.

This section sets out the reasons for 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.
  + 1. Annual tariff variation mechanism

Revenue equalisation

Under r. 92(2) of the NGR, the annual tariff variation mechanism over an access arrangement period must be designed to equalise (in present value terms) the forecast revenue from reference services and the portion of forecast total revenue allocated to reference services. Envestra’s proposed annual tariff variation formula complies in principle with r. 92(2) of the NGR. However, the AER considers that the initial reference tariffs must be amended as set out in revision 1.3. This amendment is required to reflect the changes to forecast total revenue and forecast demand. The changes in total revenue are outlined in the revenue section of the draft decision and changes to forecast demand are outlined in attachment 9 of this draft decision.

Annual tariff variation formula

The AER approves the overall structure of Envestra's proposed formula for variations to the reference service tariffs. The proposed form is consistent with that of the current access arrangement, in that it provides for an inflation adjustment, an x factor adjustment and a licence fee factor adjustment. However, the AER does not approve some elements of that proposed formula, including the proposed:

* magnitude of the rebalancing constraint,
* definition of CPI,
* x factors.

The reasons for the AER decision in regard to the proposed CPI definition and the magnitude of the rebalancing constraint are discussed below. The AER's reasoning for not approving the proposed x factor values is discussed in the revenue section of this draft decision.

Rebalancing constraint

The AER approves Envestra's proposal not to apply the rebalancing constraint in the first year of the access arrangement period. In accordance with r. 97(3)(d) of the NGR, the AER has taken into account the factor that Envestra's proposal is consistent with how the rebalancing constraint applies in other gas decisions made by the AER and in the electricity industry.[[766]](#footnote-766)

Envestra submitted that the proposed increase in the rebalancing constraint (from two to 10 per cent) will provide it with a reasonable opportunity to recover its efficient costs (as required by the RPP).[[767]](#footnote-767) It also stated that the proposed rebalancing constraint would allow Envestra to transition to the revised tariff structures in a way that effectively manages price changes to the customers (as required by the NGO).[[768]](#footnote-768) Envestra added that an increased rebalancing constraint would provide some consumers with protection from large price changes.[[769]](#footnote-769)

In assessing the rebalancing constraint within the proposed tariff variation mechanism, the AER had regard to the relevant factors under r. 97(3) of the NGR. The AER's reasoning is outlined below.

The AER does not approve the proposed increase (two to 10 per cent) of the rebalancing constraint. In summary:

* The proposed rebalancing constraint could lead to increased price volatility and potential price shocks to customers within the access arrangement period. The AER considers that such outcomes are not consistent with the NGO.[[770]](#footnote-770)
* The AER notes that the proposed rebalancing constraint is inconsistent with Envestra's current arrangements; the current arrangements for the other Victorian gas service providers; and the AER's recent decisions for Queensland and South Australia gas service providers.
* The AER has agreed to the rebalancing of Envestra's 2012 reference tariffs which will significantly mitigate the need for further rebalancing.
* The AER considers that the current form of rebalancing constraint, in combination with the cost pass through provisions under the NGR, provides Envestra with a reasonable opportunity to recover at least its efficient costs.

The need for efficient tariff structures (rule 97(3)(a))

Envestra submitted that the proposed increase in the rebalancing constraint will allow it to transition to the revised tariff structures in a way that effectively manages price changes to the customers and provide some consumers with protection from large price changes.[[771]](#footnote-771) The AER has approved a significant tariff restructuring proposed by Envestra (see attachment 10 of this draft decision). The AER considers that a higher rebalancing constraint could lead to increased price volatility and potential price shocks to customers within the regulatory period. This would create uncertainty for downstream users which, in turn, may be detrimental to the efficient investment in and utilisation of pipeline assets. The AER considers that a reference tariff control should preferable result in a price path with a reasonable degree of certainty and predictability. This view was also raised by AGL.[[772]](#footnote-772) This is important for a retailer in considering medium and long term contracts for consumers and its ability to manage the cost of providing services.[[773]](#footnote-773) The AER considers that such outcomes are not inconsistent with the RPP.[[774]](#footnote-774) Therefore, a rebalancing constraint of two per cent is appropriate for the 2013–17 access arrangement period.

Effects of the reference tariff variation mechanism on administrative costs (rule 97(3)(b))

The AER considers that once reference tariffs have been allowed to change, relative to the prices in year t-1, the administrative costs to the AER and the service provider of assessing a larger change in tariffs are likely to be immaterial.

The regulatory arrangements applicable to the relevant reference services (rule 97(3)(c))

The AER notes that the proposed reference tariff variation mechanism is different from that which applies to Envestra currently.

Consistency between regulatory arrangements for similar services (rule 97(3)(d))

Envestra submitted that its proposed rebalancing constraint of 10 per cent is consistent with that approved by the AER for the New South Wales gas distributor.[[775]](#footnote-775) The AER acknowledges that it determined a rebalancing constraint of 10 per cent for Jemena Gas Networks (NSW).[[776]](#footnote-776) However, the AER revised its view on the magnitude of the rebalancing constraint in its revenue determination decision for the Victorian electricity DNSPs, setting a rebalancing constraint of two per cent.[[777]](#footnote-777) This view was recently reaffirmed in the AER's decision on Envestra's QLD and SA access arrangement.[[778]](#footnote-778) The AER considers that it is desirable for the Envestra's rebalancing constraint to be consistent with the rebalancing constraints in the recent access arrangements decided by the AER. The AER notes that a rebalancing constraint of two per cent currently applies to Envestra, the other Victorian gas service providers and electricity DNSPs.[[779]](#footnote-779)

Other relevant factors 97(3)(e)

Envestra submitted that the proposed increase in the rebalancing constraint is required to provide it with a reasonable opportunity to recover its efficient costs.[[780]](#footnote-780) As noted above, the AER has approved a significant tariff restructuring proposed by Envestra (see attachment 10 of this draft decision). The AER considers that a higher rebalancing constraint could lead to increased price volatility and potential price shocks to customers within the regulatory period. This would create uncertainty for downstream users which, in turn, may be detrimental to the efficient investment in and utilisation of pipeline assets.

For all the above reasons, the AER does not approve the rebalancing constraint as proposed by Envestra. The AER considers that a rebalancing constraint of two per cent is appropriate for the 2013–17 access arrangement period. The AER will consult with market participants to assess how this decision aligns with their preference.

Definition of CPI

Envestra defined the CPI as:

the Consumer Price Index (All Groups Weighted Average for the Eight Capital Cities) as published by the Australian Bureau of Statistics or its successor or, if that Consumer Price Index is not published for any reason; whatever alternative index Envestra determines (with the AER’s approval) from time to time is reasonably equivalent to that Consumer Price Index.[[781]](#footnote-781)

The AER considers that this definition is vague and it is not consistent with the CPI definition of other Victorian gas service providers. The AER considers that an indicator of inflation that closely aligns with the annual tariff variation process is appropriate.[[782]](#footnote-782) The CPI to apply to Envestra over the 2013–17 access arrangement period should appropriately reference the CPI change from the September quarter immediately preceding the start of the relevant calendar year for the tariff variation (t-1) to the September quarter immediately preceding the calendar year (t-2). The AER is of the view that this is consistent with the most accurate measure available of the inflationary impacts on Envestra's costs and the CPI definition currently applied to Envestra. Envestra is required to amend its proposed definition of CPI as indicated in revision 1.1, before its tariff variation mechanism can be approved.

Other technical issues

Envestra did not include a cost pass through adjustment factor in its proposed tariff variation formula for the haulage reference service. The AER notes that Envestra outlined its proposed approach to cost pass through (further discussed below). However, the proposed reference tariff variation formula does not show how Envestra intends to implement any pass through amount approved by the AER. For clarity and certainty, it would be preferable for Envestra to show to all stakeholders how the cost pass through will operate within the annual reference tariff variation formula. The AER requires Envestra to include a pass through adjustment factor in its formula for the annual variation of haulage reference services before it can be approved as prescribed by revision 1.4.[[783]](#footnote-783)

Ancillary reference services

The AER approves Envestra's proposed variation formula for ancillary reference services. The proposed formula is consistent with the earlier access arrangement in that it provides for an inflation adjustment.[[784]](#footnote-784) However, the definition of CPI that Envestra proposed to use for the adjustment of ancillary reference services is not the same to that of the haulage reference service tariff variation mechanism; it refers to:[[785]](#footnote-785)

...the CPI for the year ending 31 March immediately preceding the start of year t, divided by the CPI for the year ending 31 March immediately preceding the start of year t-1.

The AER considers that the proposed definition is not consistent with the most accurate measure available of the inflationary impacts on Envestra's costs that should apply to the annual variations of ancillary service tariffs. As discussed above, the CPI change from the September quarter immediately preceding the start of the relevant calendar year for the tariff variation (t-1) to the September quarter immediately preceding the calendar year (t-2) would be more appropriate for that purpose. Therefore, the AER does not approve the proposed CPI definition. The AER requires Envestra to amend its proposed definition of CPI as indicated in the revision section below.

Envestra's proposed access arrangement does not indicate whether ancillary reference service tariffs will be adjusted in accordance with the proposed rebalancing constraint formula.[[786]](#footnote-786) Historically, the rebalancing constraint has not been applied to ancillary reference service tariff variations. This is also consistent with the approach taken by Multinet and SP AusNet. Taking this into account, the AER requires Envestra to amend the proposed access arrangement to specify that the rebalancing constraint will not apply to ancillary reference service tariff variations over the 2013–17 access arrangement [[787]](#footnote-787)

Energy Safe Victoria levy

The AER understands that Energy Safe Victoria (ESV) has proposed to change the level of gas industry levies that it charges to the Victorian gas distribution businesses. The ESV is currently consulting with the pipeline and gas industry on its proposal. A decision on the matter is unlikely to be made before the AER's draft decision is published. If the proposed changes are adopted, the AER notes that there is likely to be a material increase in the ESV levy for the Victorian gas distribution businesses from 2013–14. To account for this potential increase in the ESV levy, the AER proposes that gas distribution businesses include an additional element in the annual tariff variation mechanism that will recover the incremental amount of the ESV levy – that is, the amount above their proposed ESV levy related opex forecasts. Envestra is to submit a revised annual tariff variation formula with an additional factor (similar to the licence fee). The AER will assess the revised tariff variation formula in making its final decision on the 2013–17 access arrangement.

* + 1. Cost pass through tariff variation mechanism

The AER approves most aspects of Envestra's proposed cost pass through tariff variation mechanism. The cost pass through categories and definitions, while largely new to Envestra's Victorian distribution system are generally consistent with recent gas pipeline decisions by the AER.[[788]](#footnote-788) The AER approves the proposed categories of cost pass through events and most of the proposed definitions without change. The AER requires minor amendments to the definitions of some of the proposed cost pass through events, to bring them into conformity with definitions approved by the AER in previous gas pipeline decisions, including pipelines owned by Envestra.

However, the AER does not approve Envestra proposal of no materiality threshold in respect of cost pass through events. The reasons for the AER's decision are further discussed below.

Carbon tax

The AER understands that to recover its carbon tax costs in respect of the Victorian gas network for the 2013–17 access arrangement period, Envestra proposed to:

* include an opex allowance made up of the costs of administering the carbon tax scheme
* set a separate carbon tax tariff intended to recover its carbon tax liability costs with a true up mechanism each year.[[789]](#footnote-789)

Envestra submitted a revised carbon tax tariff formula following the AER's decision on its carbon tax cost pass through application for the Queensland and South Australian distribution network.[[790]](#footnote-790) Based on this information, the AER requires Envestra to amend the proposed access arrangement to account for the AER's recent decision on carbon tax cost pass through. Given the proposed true up mechanism, Envestra is to provide the AER with all information that will enable it to assess the carbon tax tariff as part of the annual tariff variation. The AER requires Envestra to amend its access arrangement proposal to specify the required information as outlined in revision section below.

Pass through events

Rule 97(1)(c) of the NGR provides 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. The AER has full discretion to withhold its approval to an element of a reference tariff variation mechanism if it believes that a preferable alternative exists.[[791]](#footnote-791)

The AER needs to assess a Service Provider's proposal to make a decision on a proposed reference tariff variation mechanism. When deciding whether a reference tariff variation mechanism is appropriate to an access arrangement the AER must have regard to the factors in r. 97(3) of the NGR. The cost pass through provisions of an access arrangement must be consistent with these rules and the NGO.[[792]](#footnote-792)

The AER considers the requirements of a cost pass through mechanism should be designed to achieve the NGO through the support of an appropriate level of administrative costs. The AER considers a cost pass through mechanism should appropriately balance the risk of material, unexpected and uncontrollable events that impact on a service provider with the long-term interests of consumers.

In particular, the AER considers there should be incentives for a service provider to bear some risk of unexpected events, as this will encourage the service providers to manage or mitigate the costs associated with such events. The AER also considers that any pass through mechanism should be symmetric, such that users will benefit from unexpected or uncontrollable events that materially reduce the costs faced by a service provider. The AER considers that a pass through mechanism should seek to minimise any administrative costs.

Cost pass through events should provide service providers and other stakeholders with sufficient protection against unexpected and uncontrollable risks. However, the AER considers that cost pass through events should not remove incentives from service providers to engage in efficient business practices.

All businesses are subject to the risk of unexpected and uncontrollable events and like unregulated businesses, regulated businesses should be required to bear some of these costs as part of the normal course of doing business. The AER considers that cost pass through events should be designed to encourage service providers to engage in prudent and efficient business practices.

Assessment Criteria

In deciding on the appropriateness of a proposed cost pass through event the AER must consider the factors in r. 97(3) and assess its consistency with the NGO. The AER, in its Victorian Electricity Distribution Network Service Provider's Draft Decision, set out a detailed consideration of its conceptual approach to assessing cost pass through events.[[793]](#footnote-793) The AER developed a number of criteria to assist it in assessing proposed cost pass through events against the NEO. The AER considers that the NEO are sufficiently similar to the NGO for the same criteria to be applicable. However, the National Electricity Rules do not contain a rule analogous to r. 97(3). Nonetheless, the AER considers that these criteria can act as general principles to assist it in assessing whether a proposed cost pass through event for a gas network is consistent with the NGO.

* the event is not already provided for:
* through the opex allowance (e.g. the insurance or self insurance components)
* through the WACC (events which affect the market generally and not just the provider are systematic risk and already compensated through the WACC), or
* through any other mechanism or allowance
* the event is foreseeable—in that the nature or type of event can be clearly identified
* the event is uncontrollable—in that a prudent service provider through its actions could not have reasonably prevented the event from occurring or substantially mitigated the cost impact of the event
* the event cannot be self-insured because a self insurance premium cannot be calculated or the potential loss to the business is catastrophic
* the party who is in the best position to manage the risk is bearing the risk
* the passing through of the costs associated with the event would not undermine the incentive arrangements within the regulatory regime.[[794]](#footnote-794)

The AER has had regard to these criteria in assessing Envestra's proposed cost pass through events against the NGO. However, the AER has not applied the criteria strictly and has departed from them where it considers it necessary to better promote the NGO.

Envestra has included a number of new cost pass through events in its access arrangement proposal. These events are largely consistent with recent AER decisions.[[795]](#footnote-795)

The AER considers that most of Envestra's proposed cost pass through events meet the criteria outlined above and are needed to provide Envestra with sufficient cover when acting prudently and efficiently. The AER requires the definition of three of Envestra's proposed cost pass through events to be amended. The AER also requires the inclusion of two new cost pass through events.

Except for the events discussed below, the AER accepts Envestra's proposed cost pass through events and definitions. The following discussion only covers the additional cost pass through events required by the AER and the proposed cost pass through events or definitions that the AER does not accept on the basis that they do not comply with the requirements of the NGL or the NGR or that a preferable alternative exists that better satisfies the requirements under the NGL and the NGR, as well as the NGO and revenue and pricing principles.[[796]](#footnote-796)

Where the AER requires the definition of a cost pass through event to be revised, the revised definition is set out in section 1.6 below.

Network user Failure Event

Envestra proposed the following definition for this event:

A network user failure event means the occurrence of an event whereby an existing network user becomes insolvent or is unable to continue to supply gas to its customers, and those customers are transferred to another network user, and which materially increases the costs of Envestra providing reference services.

The definition of this event is largely consistent with the definition the AER approved in Envestra's South Australian access arrangement. However, Envestra's proposed definition contains the additional phrase 'becomes insolvent, or'. The AER requires this insertion to be removed.

The AER considers that the inclusion of insolvency does not add any value to this definition. Firstly, the use of 'or' means that the events of insolvency or an inability of the network user to supply gas to its customers are disjunctive. In the definition, 'those customers' referred to are the customers that the network user would be unable to supply. If the relevant event is insolvency, there is no prior reference to the customers that are 'those customers'. Accordingly, with respect to insolvency, the definition becomes unclear. Secondly, if a network user was to become insolvent, it would not be able to continue to supply gas to its customers. Therefore, the definition would apply anyway.

Tax Change Event

Envestra proposed the following definition for this event:

Tax Change Event’ occurs if any of the following occurs during the course of an access arrangement period for Envestra:

(a) a change in a Relevant Tax, in the application or official interpretation of a Relevant Tax, in the rate of a Relevant Tax, or in the way a Relevant Tax is calculated; or

(b) the removal of a Relevant Tax; or

(c) the imposition of a Relevant Tax; and

in consequence, the costs to Envestra of providing prescribed reference services are increased or decreased.

This definition is largely consistent with the definition approved in recent decisions by the AER. However, the exception to those recent decisions is that the materiality requirement has been excluded. The AER requires this definition to be amended by the insertion of 'materially' between 'are' and 'increased' in the final line.

The purpose of the cost pass through mechanism is to offer protection to service providers, from uncontrollable events that impact on the costs to the business. It is not intended to recover all costs that a business would otherwise be expected to absorb. The AER considers that, in general, cost pass through events should only apply where the event has a material impact on costs. Events that have a small or non material impact on costs should be considered to be part of the general costs and risks of doing business and service providers should not be able to pass them on.

National Energy Customer Framework Event

The AER requires Envestra to include a new pass through event in its access arrangement to allow it to recover costs that it may incur following the implementation of the National Energy Customer Framework (NECF) in Victoria or any part of NECF.

In its access arrangement proposal, Envestra proposed a step change to recover additional operating expenditure that it considered it would incur as a result of the implementation of NECF in Victoria.[[797]](#footnote-797) Envestra’s proposal was based on the expectation that NECF would commence in Victoria on 1 July 2012 in line with the intended timeframe for its national implementation. The Victorian Government, subsequent to Envestra submitting its access arrangement proposal, announced its decision to delay the introduction of NECF in Victoria. The Victorian Government has yet to announce an alternative date for when the relevant legislation will be implemented to give effect to NECF.

Given the uncertainty around when NECF will commence in Victoria, the AER does not consider that Envestra’s proposed step change reflects expenditure that would be incurred by a prudent and efficient service provider. The AER therefore does not accept Envestra’s proposed step change for NECF related expenditure (refer to attachment 6, section 6.5.4).

Notwithstanding this decision, the AER considers that it is appropriate for Envestra to recover any expenditure it incurs in implementing NECF following its implementation in Victoria. The AER considers that any such expenditure should be assessed as a pass through application once NECF, or any part of it, is adopted in Victoria.

The AER considers that the future commencement of NECF in Victoria would satisfy the AER’s criteria for a defined pass through event. The AER considers that it can be clearly defined with reference to the commencement of NECF in Victoria, and is uncontrollable to the extent that it will only be triggered following a legislative act or decision of the Victorian Government. Further, the event represents an incremental cost as it has not been provided for through Envestra’s opex allowance, as discussed above.

Lastly, the AER does not consider that a materiality threshold should apply for this defined pass through event. The AER recognises that Envestra may have incurred additional expense as a result of the delayed commencement of NECF in Victoria. Further, the AER notes that there continues to be ongoing uncertainty as to the timeframe for its implementation and the extent to which the state regulatory regime may be amended to reflect NECF in the interim. Given this added uncertainty—and noting that this event is entirely beyond Envestra’s control—the AER considers it appropriate to allow Envestra to pass through costs associated with the commencement of NECF in Victoria, without the additional criteria that those costs be material.

The AER requires Envestra to revise its access arrangement proposal to include the following definition of a National Energy Customer Framework Event:

A National Energy Customer Framework Event means:

A legislative act or decision that:

(a) occurs during the access arrangement period;

(b) has the effect of implementing in Victoria, either in part or in its entirety, the National Energy Customer Framework; and

(c) increases the costs to Envestra of providing Reference Services.

For the purposes of this pass through event, the National Energy Customer Framework means any legislation, regulations or rules, that give effect in Victoria to any or all of the Schedule 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) as amended from time to time.

Mains replacement pass through event

The AER requires Envestra to include a new pass through event in its access arrangement to recover costs that it has incurred, or will incur, to complete a volume of mains replacement in excess of the volumes approved by the AER in its access arrangement final decision. This pass through event is limited to the replacement of low pressure distribution mains with high pressure polyethylene mains.

In its access arrangement proposal, Envestra proposed capital expenditure based on a forecast increase in its rate of low pressure mains replacement over the annual average achieved during the 2008–12 access arrangement period.[[798]](#footnote-798) The AER does not approve Envestra’s proposed capital expenditure and considers that the volume of mains replacement proposed by Envestra exceeds what is necessary and what would be delivered by a prudent and efficient service provider (refer to attachment 3). The AER considers that a reasonable basis for determining volume related capex is to base this on historical volumes actually delivered over the 2008-12 access arrangement period adjusted for the 2013-17 period.

Nevertheless, 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 Envestra should be afforded sufficient flexibility to respond to changing conditions, including in the market, which may require Envestra to alter the volume of mains replacement delivered during the 2013–17 access arrangement period.

The AER therefore considers that an additional event should be included in Envestra pass through tariff variation mechanism to cover mains replacement. This event will allow Envestra to pass through costs it incurs, or is to incur, to complete a volume of mains replacement that exceeds the volumes approved by the AER in its access arrangement final decision. The AER considers, however, that for this pass through event to be clearly defined it should be limited in its scope to the forecast volumes of mains replacement in Envestra initial access arrangement proposal. Any costs that Envestra incurs, or is to incur, to complete a volume of mains replacement in excess of its forecast volumes will not fall within the scope of this defined pass through event.

Lastly, the AER does not consider that a materiality threshold should apply to this defined pass through event, given the nature of the costs to be passed through. The AER notes that 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 does not consider it appropriate to apply a materiality threshold where it may operate as a disincentive to Envestra to undertake mains replacement work where it may be efficient and prudent having regard to the existing risk profiles of its network.

The AER requires Envestra to revise its access arrangement proposal to include the following definition of a Mains Replacement Event:

A Mains Replacement Event means an event whereby Envestra completes the Adjusted Historical Volumes of Mains Replacement during the course of the 2013–17 access arrangement period and:

(a) costs are incurred, or are to be incurred, by Envestra in the remainder of the 2013-17 access arrangement period to complete a volume of Mains Replacement in excess of the Adjusted Historical Volumes; and

(b) the total volume of Mains Replacement to be completed during the 2013-17 access arrangement period is not greater than the volumes proposed by Envestra in its initial access arrangement proposal for that period.

For the purposes of this Mains Replacement Event:

(c) Adjusted Historical Volumes means 265 km, being the average annual volume of mains replacement completed by Envestra for the four years from 2008 to 2011 applied across the 2013-17 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

(d) Mains Replacement means mains replacement for low pressure to high pressure block rollout, which involves the replacement of 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.

Insurance Cap event

Envestra proposed the following definition for this event:

Insurance Cap Event’ means an event that would be covered by an insurance policy but for the amount that materially exceeds the policy limit, and as a result Envestra must bear the amount of that excess loss. For the purposes of this Cost Pass Through Event, the relevant policy limit is the greater of the actual limit from time to time and the limit under Envestra’s insurance cover at the time of making this access arrangement. This event excludes all costs incurred beyond an insurance cap that are due to Envestra’s negligence, fault, or lack of care. This also excludes all liability arising from Envestra’s unlawful conduct, and excludes all liability and damages arising from actions or conduct expected or intended by Envestra.

An insurance cap event allows a service provider to pass through costs that exceed the maximum payout that the service provider receives from its insurer when an insured risk eventuates.

Envestra's current access arrangement does not include an Insurance Cap Event or any event analogous to the proposed Insurance Cap Event.

The AER requires the definition of an Insurance Cap Event to be amended so that the policy limit referred to in the definition is defined as the greater of the actual policy limit at the time of the event that gives rise to the claim and the policy limit at the time the AER makes its final decision on Envestra’s access arrangement proposal for the 2013-17 access arrangement period. Further, the AER requires the policy limit to be defined with reference to the forecast operating expenditure allowance for the 2013-17 access arrangement period, approved by the AER in its Final Decision.

A network business, acting efficiently and prudently in managing its risks, is expected to take out an insurance policy that provides an efficient level of insurance coverage. It is appropriate to include provision in the cost pass through mechanism to allow the AER to determine whether any excess costs that are not covered under such a policy can be recovered from customers. This may occur in circumstances where a prudent network business has obtained an efficient level of insurance coverage, consistent with the standard expected and approved in its forecast operating expenditure allowance, but due to circumstances beyond its control, the policy coverage does not cover the costs incurred once a claim is made on that policy.

The kinds of circumstances that may lead to such an excess cannot be self-insured nor could the network business have taken actions to reasonably prevent these circumstances from occurring, or to substantially mitigate the relevant cost impact. Where this is the case, the AER does not consider that the network business should bear the costs in excess of their insurance policy coverage. A network business is not in a position to manage the risk of such circumstances occurring as they are beyond its control. It is therefore a legitimate cost that the network business incurs in the provision of reference services, that should be recovered from customers by way of a cost pass through. In these circumstances, the pass through of these costs will not undermine the incentives for the network business to efficiently and prudently manage the risks that are within its control.

Envestra's base forecast operating expenditure allowance includes a component for insurance coverage. There is an expectation that Envestra will expend that component to obtain an efficient level of insurance coverage, but the AER cannot compel Envestra to actually do this.

This raises the risk that Envestra 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 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.

To address this risk, the AER requires Envestra to amend the definition of an Insurance Cap Event so that it is defined with reference to an efficient insurance policy limit as contemplated in the forecast operating expenditure allowance. This ensures that consumers pay for the premium as contemplated in the forecast operating expenditure allowance and beyond this may only pay for any excess loss incurred by the network business that would otherwise be considered an efficient cost.

The AER considers that the amended definition of an insurance event is a preferable alternative that complies with the NGL and is consistent with the NGR and NGO. As previously defined, the inclusion of an Insurance Event in the pass through regime may result in customers effectively paying twice. This is not in the long term interests of consumers, and therefore is inconsistent with the NGO. However, it is in the long term interests of consumers to allow a network business to recover costs that are legitimately outside of its control. The recovery of such costs is also consistent with ensuring that the network business is provided a reasonable opportunity to recover at least its efficient costs, as is consistent with the revenue and pricing principles.

The AER therefore requires Envestra to amend the definition of an Insurance Cap Event in its access arrangement proposal as follows:

An Insurance Cap Event means an event whereby:

(a) Envestra makes a claim on a relevant insurance policy;

(b) Envestra incurs costs beyond the relevant policy limit; and

(c) The costs beyond the relevant policy limit materially increase the costs to Envestra of providing reference services.

For the purposes of this Insurance Event:

(d) The relevant policy limit is the greater of Envestra’s actual policy limit at the time of the event that gives rise to the claim and its policy limit at the time the AER made its Final Decision on Envestra’s access arrangement proposal for the period 2013-17, with reference to the forecast operating expenditure allowance approved in the AER’s Final Decision and the reasons for that decision; and

(e) A relevant insurance policy is an insurance policy held during the 2013-17 Access Arrangement Period or a previous period in which access to the pipeline services was regulated.

The AER considers that an assessment of Envestra’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 Envestra’s control—is relevant to the AER’s decision whether or not to approve the Relevant Pass Through Event.

To give effect to this, the AER considers that the cost pass through mechanism should include 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 Envestra 's decisions, actions and omissions in relation to the risk of a pass through event, including whether Envestra 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 Envestra, 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 Envestra's control.

The AER considers that this will incentivise Envestra 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.

The AER considers that this approach will best achieve the NGO. The AER considers that it needs to examine the circumstances that led to or resulted in an application for a pass through of costs in excess of an insurance cap, when making a decision that is in the long term interests of consumers.  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.

For this reason, the AER has not excluded negligence. 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.

Materiality Threshold

Envestra submitted that it should not be necessary to specify a materiality threshold because:

* the cost of preparing a cost pass through application places a discipline on a distributor in respect of making claims;
* cost pass through events are, by their nature, infrequent;
* it is inconsistent to apply a materiality threshold to a cost pass through amount, when no such threshold exists when determining amounts to be recovered by way of forecast costs during an access arrangement review process;
* the costs would have been included in the forecast expenditure had they been known, regardless of their magnitude;
* to-date, where no defined materiality threshold has applied, Envestra has not made any frivolous claims in respect of any of its networks;
* the NGR otherwise require the administrative costs to be considered. [[799]](#footnote-799)

The AER does not accept Envestra's reasons for excluding the materiality threshold. The purpose of the cost pass through mechanism is to offer protection to service providers, where unexpected events place the financial viability of the service provider at risk. It is not intended to recover all costs that a business would otherwise be expected to absorb. The AER considers that the exclusion of a materiality threshold removes the incentive for Envestra to mitigate the risk and costs of a cost pass through event. The AER considers this would disproportionately burden end users with risk. Envestra has submitted that in the past it has not made any frivolous applications and the cost of preparing a cost pass through application places a discipline on a distributor when making a claim. The AER considers that, notwithstanding Envestra's submissions, the exclusion of a materiality threshold provides a service provider with the option of claiming any additional costs covered by a cost pass through event and that there may be some costs which would be below the materiality threshold proposed but which would exceed any administrative cost in preparing the application.

The AER considers that a materiality threshold of one per cent better accommodates the efficiency incentives required under the regulatory regime, and better satisfies the revenue and pricing principles under the NGL.[[800]](#footnote-800)

The Australian Competition Tribunal recently upheld the AER's exercise of its discretion in relation to setting the materiality threshold for the Victorian electricity DNSPs at one percent of the smoothed forecast revenue.[[801]](#footnote-801)

Envestra’s cost pass through events have not previously been subject to a specific materiality threshold.[[802]](#footnote-802) However, the AER considers a defined materiality threshold better serves the long term interests of energy stakeholders by providing greater certainty and consistency for Envestra and its customers.

* + 1. Procedure for oversight and approval of tariff variations

The NGR state that a reference tariff variation mechanism must give the AER adequate oversight or powers of approval over variation of the reference tariff.[[803]](#footnote-803)

Part Year tariffs

The AER’s final decision on the 2013-17 access arrangements for the Victorian gas service providers is due to be made in March 2013. This is after the 1 January 2013 revision commencement date specified in the 2008-12 access arrangements for these service providers.

Rule 92(3) of the NGR prescribes that in the event of an interval between a revision commencement date stated in a full access arrangement and the date on which revisions to the access arrangement actually commence:

(a) the reference tariff in force at the end of the previous access arrangement period, continue without variation for the interval of delay; but

(b) the operation of this subrule may be taken into account in fixing reference tariffs for the new access arrangement period

There will be a delay in the making of the final decision. The AER has therefore taken into account the operation of r. 92(3) of the NGR in fixing reference tariffs for the 2013–17 access arrangement period. 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.

The AER considers that the interval of delay should not result in service providers incurring a windfall gain or loss, compared with what would have occurred if the 2013-17 access arrangements had taken effect from 1 January 2013. This approach is consistent with the efficiency objectives under the NGO and long term interest of gas consumers. This approach will also provide service providers with a reasonable opportunity to recover at least the efficient costs of providing reference services as approved in the access arrangements, consistent with the RPP.

The AER considers that the Reference Tariff Policy must be amended as set out in revision 11.8.

Annual and Within-Year Variations

Envestra proposed a conflicting timeframe of when it is to notify the AER in respect of any reference tariff variations.

* In its access arrangement information, Envestra proposed at least 35 business days prior to the implementation.[[804]](#footnote-804) The proposed time frame includes 20 business days for the AER to approve or reject the proposed variations; and 15 business days for market participants to prepare for the implementation of the new tariffs.[[805]](#footnote-805)
* In its access arrangement, Envestra proposed 50 business days prior to the implementation.[[806]](#footnote-806)

The AER sought clarification on the matter.[[807]](#footnote-807) In response, Envestra proposed a continuation of the current process for tariff variation approvals, which requires the tariff adjustment notification to be submitted to the AER 35 days before the tariffs are proposed to come into effect.[[808]](#footnote-808) Envestra also submitted that a 50 business day notification period is not efficient given it requires it to submit two tariff notifications:[[809]](#footnote-809)

* the first with an estimated September quarter CPI
* then, a revised submission once the CPI become known.

The AER notes that this process does not require Envestra to revise its entire tariff notification as the required revision is limited to one figure (the CPI). The NGR state that a reference tariff variation mechanism must give the AER adequate oversight or powers of approval over variation of the reference tariff.[[810]](#footnote-810) The proposed 20 business days does not provide it with adequate time to assess the tariff variation notification.[[811]](#footnote-811) The AER considers that 50 business days prior to the new tariff implementation is appropriate and will give the AER adequate oversight as required under rule 97(4) of the NGR. This will give the AER 30 business days to approve or reject the proposed variation; and 20 business days for market participants to prepare for the implementation of the new tariffs. This approach is consistent with the AER's recent decision on gas access arrangements.[[812]](#footnote-812)

However, this timeframe may not be appropriate for the AER to approve tariff variation if an application is incomplete or information is not substantiated. As a result, the AER considers that Envestra's access arrangement must be amended as outlined in revision 1.8. This is consistent with the AER's recent decisions on gas access arrangements.[[813]](#footnote-813)

An important input in the proposed annual tariff variation mechanism is the use of past gas quantities to weight each tariff components. The AER considers it is appropriate that Envestra be required to provide an independent statement to support the actual gas quantities. This will allow the AER to verify the quantities used in the tariff variation mechanism.[[814]](#footnote-814) The independent verification statement should provide for audited or verified quarterly and annual quantities for the year consistent with the proposed changes in CPI. This information is to be collected as part of the annual reporting requirements (audit requirement to be set out in RIN). The AER requires Envestra to amend its access arrangement proposal as outlined in revision 1.8. .

Based on the above reasons the AER does not approve the proposed annual tariff reference variation process for the 2013–17 access arrangement period. Envestra is required to amend its proposed reference tariff variation process as outlined in revisions of this draft decision before it can be approved.

Relevant Pass Through Events

Envestra's proposed approach is substantially the same as that approved by the AER in its recent decisions, including the decision on Envestra's South Australian pipeline. However, the proposal does differ in some respects. The AER considers that the cost pass through approval mechanism should be amended to be consistent with its recent decisions.

Following the move to a national regulatory framework, the AER is responsible for regulating all network businesses in the National Energy Market. A consistent approval process is therefore desirable from the perspective of transparency and administrative efficiency. By specifying a consistent approach whereby it has to apply the same process for each cost pass through application, the AER will be able to process cost pass through applications in a more timely and efficient manner. The AER considers that the application of a consistent approach to the assessment of the same type of application from different service providers is consistent with the NGO.

The AER considers that it must be notified of a cost pass through event within 90 days of the costs being incurred, regardless of whether the event would result in a positive or negative impact on tariffs. The AER considers it should notify Envestra of its decision on any cost pass through application within 90 days of the application, except where it considers the cost pass through application is sufficiently complex as to require an extension. The AER must notify Envestra where this is the case. The AER considers that there is a risk that 30 days will be an insufficient period of time for it to make a complete and informed decision.

The AER considers that the time frames described above should balance the need for a timely response, with the flexibility for the AER to make a complete and informed decision.

The AER considers that a tariff variation as a result of a cost pass through event should take effect from the next 1 January, following approval of the cost pass through application.

The AER considers that the factors to be taken into account when assessing a cost pass through application should be uniform across access arrangements. The AER proposes to amend the factors proposed by Envestra to align them with the factors approved by the AER in recent gas pipeline decisions, subject to the inclusion of an additional factor as discussed above in the context of the Insurance Cap Event definition. The AER considers that this is consistent with the NGR and NGO.

* 1. Revisions

Before the access arrangement can be approved, Envestra must make the following amendments.

Revision 11.1: Amend glossary in the access arrangement proposal to include the following statement before the table (page 19) as follows:

Delete definition of CPI and replace with the following:

CPI is:

(a) the consumer price index: all groups index for the eight state capitals as published by the Australian Bureau of Statistics for the September quarter immediately preceding the start of the relevant Calendar Year (a);

divided by

(b) the consumer price index: all groups for the eight state capitals as published by the Australian Bureau of Statistics for the September quarter immediately preceding the September quarter referred to in paragraph (a);

minus one.

Revision 11.2: Amend Annexure B of the access arrangement proposal to include the following statement before the table (page 27):

The initial reference tariffs are expressed in real 2013 dollars and the first annual tariff variation is made for the year commencing 1 January 2014.

Revision 11.3: Amend Annexure B of the access arrangement proposal as follows:

Delete tables in Annexure B and replace them with the following updated tables for Envestra Victoria and Envestra Albury, respectively

* + - * 1. Envestra Victoria -Tariff V - Tariff Schedule 2013

|  |  |
| --- | --- |
| Central Zone |  |
| Residential |  |
| Base Charge ($/day) | 0.1418 |
| Charge for the first 0.0274GJ of gas delivered ($/GJ) | 8.1048 |
| Charge for the next 0.0219GJ of gas delivered ($/GJ) | 6.0786 |
| Charge for additional gas delivered ($/GJ) | 3.3371 |
| Non-residential |  |
| Base Charge ($/day) | 0.1419 |
| Charge for the first 0.05GJ of gas delivered ($/GJ) | 6.2784 |
| Charge for the next 0.50GJ of gas delivered ($/GJ) | 3.4995 |
| Charge for the next 0.82GJ of gas delivered ($/GJ) | 2.6154 |
| Charge for additional gas delivered ($/GJ) | 1.0601 |

|  |  |
| --- | --- |
| North Zone |  |
| Residential |  |
| Base Charge ($/day) | 0.1418 |
| Charge for the first 0.0274GJ of gas delivered ($/GJ) | 7.0552 |
| Charge for the next 0.0219GJ of gas delivered ($/GJ) | 5.2891 |
| Charge for additional gas delivered ($/GJ) | 2.9037 |
| Non-residential |  |
| Base Charge ($/day) | 0.1418 |
| Charge for the first 0.05GJ of gas delivered ($/GJ) | 5.5249 |
| Charge for the next 0.50GJ of gas delivered ($/GJ) | 3.0795 |
| Charge for the next 0.82GJ of gas delivered ($/GJ) | 2.3005 |
| Charge for additional gas delivered ($/GJ) | 0.9329 |

|  |  |
| --- | --- |
| Murray Valley Zone |  |
| Residential |  |
| Base Charge ($/day) | 0.1968 |
| Charge for the first 0.0274GJ of gas delivered ($/GJ) | 6.1454 |
| Charge for the next 0.0219GJ of gas delivered ($/GJ) | 4.6091 |
| Charge for additional gas delivered ($/GJ) | 2.9973 |
| Non-residential |  |
| Base Charge ($/day) | 0.1968 |
| Charge for the first 0.05GJ of gas delivered ($/GJ) | 4.9418 |
| Charge for the next 0.50GJ of gas delivered ($/GJ) | 3.5153 |
| Charge for the next 0.82GJ of gas delivered ($/GJ) | 2.6261 |
| Charge for additional gas delivered ($/GJ) | 1.2439 |

|  |  |
| --- | --- |
| Bairnsdale Zone |  |
| Residential |  |
| Base Charge ($/day) | 0.2335 |
| Charge for the first 0.0274GJ of gas delivered ($/GJ) | 13.3420 |
| Charge for the next 0.0219GJ of gas delivered ($/GJ) | 10.0065 |
| Charge for additional gas delivered ($/GJ) | 5.4934 |
| Non-residential |  |
| Base Charge ($/day) | 0.2335 |
| Charge for the first 0.05GJ of gas delivered ($/GJ) | 10.6351 |
| Charge for the next 0.50GJ of gas delivered ($/GJ) | 5.9278 |
| Charge for the next 0.82GJ of gas delivered ($/GJ) | 4.4284 |
| Charge for additional gas delivered ($/GJ) | 1.7958 |

* + - * 1. Envestra Victoria - Tariff D - Tariff Schedule 2013

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Central Zone | North Zone | Murray Valley | Bairnsdale |
| 10 GJ or less ($/GJ) | 1,164.1660 | 1,164.1660 | 1,356.8950 | 1,925.5727 |
| Next 40GJ ($/GJ) | 711.6544 | 711.6544 | 837.2898 | 1,192.9003 |
| Additional GJ ($/GJ) | 129.9627 | 129.9627 | 142.6052 | 217.5580 |

* + - * 1. Envestra Albury -Tariff V - Tariff Schedule 2013

|  |  |
| --- | --- |
|  |  |
| Residential |  |
| Base Charge ($/day) | 0.2410 |
| Charge for the first 0.0274GJ of gas delivered ($/GJ) | 6.7884 |
| Charge for the next 0.0219GJ of gas delivered ($/GJ) | 5.0913 |
| Charge for additional gas delivered ($/GJ) | 2.7950 |
| Non-residential |  |
| Base Charge ($/day) | 0.2410 |
| Charge for the first 0.05GJ of gas delivered ($/GJ) | 5.2434 |
| Charge for the next 0.50GJ of gas delivered ($/GJ) | 2.9226 |
| Charge for the next 0.82GJ of gas delivered ($/GJ) | 2.1833 |
| Charge for additional gas delivered ($/GJ) | 0.8854 |

* + - * 1. Envestra Albury - Tariff D - Tariff Schedule 2013

|  |  |
| --- | --- |
|  |  |
| 10 GJ or less ($/GJ) | 1 148.9952 |
| Next 40GJ ($/GJ) | 713.6256 |
| Additional GJ ($/GJ) | 172.4526 |

Revision 11.4: Amend Annexure D of the access arrangement proposal as follows:

Include a cost pass through adjustment factor in the tariff control formula – page 32 for the Albury distribution network and page 34 for the Victorian distribution network.

Include a demonstration of how this pass through adjustment factor will be calculated.

Revision 11.5: Amend Annexure D of the access arrangement proposal as follows:

Delete Yt = 0.10 in the rebalancing control formula in Annexure D, Box 3 and replace with and replace it with Yt = 0.02.

Delete the definition of Xt in tariff control formula in Annexure D, Boxes 1, 2 and 3; and replace with:

Xt is defined by the alignment of the service provider's building block revenue requirement with the NPV of its forecast revenues and is determined to be:

Victorian Distribution Network

Xt = 2.8% in 2013

Xt= 0.0% in 2014-17

Albury Distribution Network

Xt = 3.4% in 2013

Xt= 0.0% in 2014-17

Revision 11.6: Amend Annexure D of the access arrangement proposal as follows:

 Delete the content of Box 15.4 and replace with:

When assessing Envestra’s proposed tariffs, submitted in accordance with this Access Arrangement, the AER will assess whether the Carbon Payment Revenue (), is less than or equal to the Maximum Carbon Payment Revenue allowed () as follows:



where:

 is the total of Envestra’s proposed Carbon Payment Revenue charges multiplied by the corresponding forecast quantities to be distributed for each tariff component of each tariff, in calendar year t.

 is the maximum revenue that Envestra is allowed to receive from its Carbon Payment Revenue tariffs from all consumers for the calendar year t and is expressed as:



where:

 is the aggregate of all costs that Envestra forecasts it will incur in respect of the Carbon Scheme in calendar year t, and

 is a correction factor to account for any under or over recovery arising from actual Carbon Payment Revenue tariffs in relation to allowed revenue and is expressed as follows:



where:

 is the actual total revenue earned by Envestra from Carbon Payment tariffs in respect of all distribution customers in calendar year t–2;

 is the value calculated for MCPR for year t-2;

 is the cost of carbon permit acquisition that Envestra actually incurred in respect of the Carbon Scheme in year t -2; and

 is the figure used for CPPt when calculating MCTR for year t-2.

Note:  is zero for years 2012/13 and 2013/14

Revision 11.7: Amend section 3 of the access arrangement proposal as follows:

Delete section 3.1 of the access arrangement and replace with the following:

The Tariff Schedule set out in Annexure B to this Access Arrangement shows the initial Reference Tariffs that will apply to the Haulage Reference Services.

The initial Reference Tariffs will apply from 1 January 2013, until those Reference Tariffs are varied in accordance with section 4 of this Access Arrangement.

All Haulage Reference Tariffs for the Victorian distribution network have been designed to effectively increase by 2.8% in year 1, and 0% in each of the subsequent years and 3.4% in year 1, and 0% in each of the subsequent years for the Albury distribution network.

The Charges payable in respect of a DP vary according to the Tariff Zone in which that DP is located.

The Reference Tariffs for Reference Services will be set out in Tariff Schedules that Envestra will publish from time to time on its website at www.envestra.com.au.

Revision 11.8: Amend section 4 of the access arrangement proposal as follows:

Delete the fourth paragraph in section 4.4.1 of the access arrangement and replace it with:

The second Reference Tariff Control Formula is designed to ensure that the average revenue (in $/GJ or $/GJ of MDQ) that Envestra receives from any single type of Haulage Reference Service, after any proposed variation to Reference Tariffs, does not increase by more than CPI plus 2 per cent.

Delete definition of CPI in section 4.4.2 of the access arrangement and replace with the following:

CPIt is the CPI as defined in the glossary for year t

Delete section 4.6.1 of the access arrangement and replace with the following:

(i) Where Envestra wishes to vary any Reference Tariff pursuant to section 4.4, Envestra will notify the AER in respect of the proposed variation, such that variations occur on the first of January of any year. The notification will be made at least 50 Business Days before the date of implementation and include:

(a) the proposed variations to the Reference Tariffs; and

(b) an explanation and details of how the proposed variations have been calculated.

If Envestra proposes variations to the Reference Tariffs pursuant to section 4.4 and those variations have not been approved by the next 1 January then the Reference Tariffs will be varied with effect from that next 1 January by the same percentage increment or decrement as occurred on the previous 1 January, until such time as variations to Reference Tariffs are approved by the AER.

If it appears to the AER that any past tariff variation contains a material error or deficiency because of a clerical mistake, accidental slip or omission, miscalculation or misdescription, the AER may change subsequent tariffs to account for these past issues.

Within 30 Business Days of receiving Envestra’s variation notice, the AER will inform Envestra in writing of whether or not it has verified the proposed haulage reference tariff and/or haulage reference tariff components in the service provider's variation notice as compliant with the annual tariff variation mechanism.

The 30 Business Day period may be extended for the time taken by the AER to obtain information from Envestra, obtain expert advice or consult about the notification. However, the AER must assess a variation application within 90 Business Days of receiving Envestra’s variation notice, including any extension of the decision making time.

(ii) Envestra will include a statement to support the gas quantity inputs in the tariff variation formula. The statement will be independently audited or verified and the quantity input will reflect the most recent actual annual quantities available at the time of tariff variation assessment. The actual quantity will be provided as four quarters of gas quantity data reconciling to an annual total quantity of gas.

(iii) At the same time as submitting the reference tariff variation notice to the Regulator, Envestra will also provide to the Regulator information in respect of the carbon tax tariff, including the following information and supporting documentation:

(1) the most recent available certified emissions figure for the network, this being the reported figure for the previous financial year

(2) a forecast of emissions for the current financial year

(3) a forecast of emissions for the subsequent financial year

(4) the actual cost of carbon permit acquisition for the previous financial year

(5) a forecast cost of carbon permit acquisition for the current financial year

(6) a forecast cost of carbon permit acquisition for the subsequent financial year

(7) the dollar amount allowed each year by the AER for recovery, for all previous years

(8) the difference between amounts allowed and the actual or forecast cost for the previous and current financial year; and

(9) the amount being sought for recovery in the following financial year, being the sum of (6) and (7) above, which amount is to be included in the carbon tariff.

(iv) Envestra will include a rounding convention in section 4.6.

In making these amendments Envestra needs to take account of the need:

 to make clear the Reference tariffs which applied in 2012 will continue to be apply in nominal terms until 1 July 2013.

 to make clear that 2013 Reference tariffs will only apply for the period 1 July 2013 to 31 December 2013

 to make changes to the process of the access arrangement to reflect that 2013 Reference tariffs will commence on 1 July 2013 rather than on the start of the calendar year (1 January).

Revision 11.9: Amend the definition of Network User Failure Event in section 4.5 of the access arrangement proposal as follows:

Delete the words 'becomes insolvent or'.

Revision 11.10: Amend the definition of Tax Change Event in section 4.5 of the access arrangement proposal as follows:

Insert the word 'materially' between “are” and “increased” in the final line.

Revision 11.11: Amend the definition of Insurance Cap Event in section 4.5 of the access arrangement proposal as follows:

Delete the definition of Insurance Cap Event and insert the following:

An Insurance Cap Event means an event whereby:

(a) Envestra makes a claim on a relevant insurance policy;

(b) Envestra incurs costs beyond the relevant policy limit; and

(c) The costs beyond the relevant policy limit materially increase the costs to Envestra of providing reference services.

For the purposes of this Insurance Cap Event:

(d) The relevant policy limit is the greater of Envestra’s actual policy limit at the time of the event that gives rise to the claim and its policy limit at the time the AER made its Final Decision on Envestra’s access arrangement proposal for the period 2013-17, with reference to the forecast operating expenditure allowance approved in the AER’s Final Decision and the reasons for that decision; and

(e) A relevant insurance policy is an insurance policy held during the 2013-17 Access Arrangement Period or a previous period in which access to the pipeline services was regulated.

Revision 11.12: Amend section 4.5 of the access arrangement proposal as Follows:

After the second paragraph, change factor (e) to (f) and insert a new factor (e) as follows:

(e) the efficiency of Envestra's decisions and actions in relation to the risk of the Relevant Pass Through Event occurring, including whether Envestra has failed to take any action that could reasonably be taken to reduce the magnitude of the costs incurred as a result of the Relevant Pass Through Event and whether Envestra has taken or omitted to take any action where such action or omission has increased the magnitude of the costs; and

Revision 11.13: Amend section 4.5 of the access arrangement proposal as follows:

Insert the following definition of a National Energy Customer Framework Event:

A National Energy Customer Framework Event means:

A legislative act or decision that:

(a) occurs during the access arrangement period;

(b) has the effect of implementing in Victoria, either in part or in its entirety, the National Energy Customer Framework; and

(c) increases the costs to Envestra of providing Reference Services.

For the purposes of this pass through event, the National Energy Customer Framework means any legislation, regulations or rules, that give effect in Victoria to any or all of the Schedule 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) as amended from time to time.

Revision 11.14: Amend section 4.5 of the access arrangement proposal as follows:

Insert the following definition of a Mains Replacement Event:

A Mains Replacement Event means an event whereby Envestra completes the Adjusted Historical Volumes of Mains Replacement during the course of the 2013–17 access arrangement period and:

(a) costs are incurred, or are to be incurred, by Envestra in the remainder of the 2013-17 access arrangement period to complete a volume of Mains Replacement in excess of the Adjusted Historical Volumes; and

(b) the total volume of Mains Replacement to be completed during the 2013-17 access arrangement period is not greater than the volumes proposed by Envestra in its initial access arrangement proposal for that period.

For the purposes of this Mains Replacement Event:

(c) Adjusted Historical Volumes means 265 km being the average annual volume of mains replacement completed by Envestra for the four years from 2008 to 2011 applied across the 2013-17 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

(d) Mains Replacement means mains replacement for low pressure to high pressure block rollout, which involves the replacement of 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.Insert a new definition of Materiality threshold as follows:

Revision 11.15: Amend section 4.5 of the access arrangement proposal as follows:

Insert the following definition of Material:

For the purpose of any relevant pass through event, an event is considered to materially increase or decrease costs where that event has an impact of one per cent of the smoothed forecast revenue specified in the AER's final decision, in the years for the regulatory control period that the costs are incurred. Revision 11.16: Amend section 4.6.2 of the access arrangement proposal as follows:

Delete 4.6.2 and insert the following:

Envestra will notify the AER of cost pass through events within 90 business days of the relevant pass through event occurring, whether the costs would lead to an increase or decrease in Reference Tariffs.

When the costs of the Cost Pass-through Event incurred are known (or able to be estimated to a reasonable extent), then those costs shall be notified to the AER. When making a notification to the AER, Envestra will provide the AER with a statement, signed by an authorised officer of Envestra, verifying that the costs of any pass through events are net of any payments made by an insurer or third party which partially or wholly offsets the financial impact of that event (including self insurance).

The AER must notify Envestra of its decision to approve or reject the proposed variations within 90 Business Days of receiving the notification. This period will be extended for the time taken by the Regulator to obtain information from Envestra, obtain expert advice or consult about the notification.

However, if the AER determines the difficulty of assessing or quantifying the effect of the relevant Trigger Event requires further consideration, the AER may require an extension of a specified duration. The AER will notify Envestra of the extension, and its duration, within 90 business days of receiving a notification from Envestra.

1. Non-tariff components

Envestra’s access arrangement proposal sets out terms and conditions that are not directly related to the nature or level of tariffs paid by users. However, these are important to the relationship between Envestra and Network Users. These are referred to by the AER as non-tariff components of the access arrangement and include:

* capacity trading requirements—how users may assign contracted capacity and change delivery and receipt points
* queuing requirements—a process or mechanism for establishing an order of priority between prospective users of spare and / or developable capacity
* extension and expansion requirements—the method for determining whether an extension or expansion is a part of the covered pipeline and the effect this will have on tariffs. These requirements are relevant when identifying the covered pipeline and pipeline services which will be regulated through the access arrangement
* commencement and review dates
* terms and conditions on which the reference service will be provided.

A more detailed consideration of the terms and conditions of Envestra's access arrangement is also set out below. The remaining non-tariff components are considered after the terms and conditions.

* 1. Terms and conditions

Rule 48(d)(ii) of the NGR requires that a full access arrangement specify for each reference service the other terms and conditions on which the reference service will be provided. The terms and conditions set out in an approved access arrangement will be the terms and conditions that the AER must give effect to in the event that there is an access dispute, requiring it to make an access determination.[[815]](#footnote-815)

Notwithstanding this, nothing in the NGL prevents a Service Provider from entering into an agreement with a user or a prospective user about access to a pipeline service that is different from the applicable access arrangement.[[816]](#footnote-816) The parties are therefore able to negotiate terms and conditions that are suitable to their commercial circumstances. The AER expects that the terms and conditions as set out in an approved access arrangement would act as a starting point for such negotiations.

* + 1. Draft decision

The AER does not approve Envestra's non-tariff components. The AER requires Envestra to make revisions to the following non-tariff components:

* Terms and conditions to qualify Envestra's discretion and provide for a greater degree of reciprocity of rights and obligations
* Envestra's capacity trading approach
* Change to receipt or delivery points
  + 1. Access arrangement proposal

Envestra's proposed general terms and conditions are contained in Annexure F of its access arrangement proposal.[[817]](#footnote-817) Envestra's proposed terms and conditions vary significantly from the terms and conditions in its current access arrangement. However, the proposed terms and conditions are broadly consistent with the terms and conditions the AER recently approved for Envestra's South Australian and Queensland gas distribution networks.[[818]](#footnote-818)

Envestra submits that the main differences between the terms and conditions in its proposed access arrangement and those in its approved South Australian and Queensland access arrangements relate to:

* changes necessary to ensure the access arrangement reflects the National Energy Customer Framework (NECF)
* terms dealing with specific Victorian legislation or regulations.

Envestra states that the continued use of terms and conditions similar to those in the current Victorian access arrangement would create inefficiencies in relation to Envestra's Victorian distribution network. Specifically, the terms in the Victorian network would be different to Envestra's South Australian and Queensland networks.[[819]](#footnote-819) Envestra's goal is to adopt terms and conditions in each jurisdiction that are as consistent as is possible, with variations for differences between the jurisdictions that arise from regulatory derogations or different tariff structures.[[820]](#footnote-820)

Envestra submits that its proposed approach will:

* streamline negotiations with retailers
* streamline the contracting process
* streamline the process of seeking legal advice in relation to terms and conditions
* enable Envestra to develop and utilise consistent internal procedures across multiple jurisdictions
* streamline Envestra's response to regulatory change
* streamline the process of regulatory reviews
* reduce legal and administrative costs.[[821]](#footnote-821)
  + 1. Assessment Approach

Non-tariff components must be consistent with the NGO.[[822]](#footnote-822) But, otherwise, the AER has full discretion in dealing with them.[[823]](#footnote-823) The AER has considered whether each term of Envestra's access arrangement proposal is consistent with the NGO.[[824]](#footnote-824) The AER considers that assessing consistency with the NGO requires the AER to assess and balance the competing interests of the Service Provider, Network Users and consumers. In particular, the AER has considered:

* the appropriate allocation of risk
* the desirability of avoiding a prescriptive approach on commercial matters in the access arrangement.

Allocation of risk

The NGO involves the promotion of efficient investment in and efficient operation and use of natural gas pipeline services for the long term interest of consumers. The AER considers that requiring risk to be borne by the party best able to manage it promotes this objective. This is because such an approach provides the opportunity to minimise the risk, which can lead to greater efficiency and lower prices.

The AER considers that non-price terms and conditions that unduly favour a gas pipeline service provider are not consistent with the NGO. Such terms could discourage new businesses from entering the retail sector. They are also likely to increase Network Users' costs, which retailers would pass on to end consumers. A similar logic applies to terms and conditions that unduly favour Network Users. If the gas pipeline service providers face an inefficient level of risk, they are likely to pass additional costs on to the Network Users and consumers.

Commercial matters

The AER considers that consistency with the NGO requires terms and conditions to be sufficient to provide for a clear, legally certain and effective ongoing relationship between the parties. This becomes particularly relevant should an access dispute arise. In that scenario, the terms and conditions in the access arrangement will come into central focus.[[825]](#footnote-825) The AER does not consider an access arrangement's terms and conditions can or need to cover every possible area of interaction between the parties.

The AER considers that Envestra and a Network User may wish to reach agreement on several aspects of their commercial relationship, separate from the access arrangement's terms and conditions. These aspects are likely to depend on the parties' particular circumstances. The AER considers that it should provide such parties with commercial flexibility to agree on terms that are relevant to their businesses and circumstances, consistent with s. 322 of the NGL. A prescriptive approach would not provide this flexibility. The AER considers that such an approach would not be consistent with the NGO.

In general, the AER considers that the terms and conditions Envestra has proposed are necessary for there to be a clear, effective and legally certain agreement between Envestra and a Network User.

By itself, a term may be necessary for an agreement to be clear, effective and legally certain. However, there may still be scope to adapt the language or level of detail of that term to apply to different commercial circumstances. In these cases, the AER considers that amending a term will be consistent with the NGO. Nonetheless, for commercial reasons, a Network User may seek to vary the wording or depth of a term. In these cases the AER considers that the proposed term should be approved. The parties can then negotiate any changes to the wording or detail of the term.

In these cases, the AER will generally avoid proposing amendments. This is particularly the case where the AER has received submissions that it considers go to the commercial form of a term, rather than its operation.

For the above reasons, the AER considers that this assessment approach will deliver a result consistent with the NGO.[[826]](#footnote-826)

* + 1. Reasons for the Decision

The following discussion focuses on the terms and conditions that the AER has concerns with and requires to be amended. Appendix D sets out the AER's reasoning with respect to proposed terms that it has accepted and submissions that it has not referred to in the following discussion.

Envestra has completely redrafted its proposed terms and conditions, with minimal carry over from its current Victorian access arrangement. The AER considers that much of the change is acceptable. However, there are some proposed terms that involve a significant derogation of the users' rights when compared against Envestra's current Victorian access arrangement.

Envestra has stated that the differences between its proposed Victorian terms and conditions and the terms and conditions approved by the AER in South Australia and Queensland are to give effect to the NECF and to deal with Victoria specific legislation and regulations. However, there are differences that do not appear to relate to either of these reasons and Envestra has not explained them.

Many of the proposed changes in Envestra's terms and conditions are designed to implement NECF. However, since Envestra lodged its access arrangement proposal, the Victorian government has deferred implementing the NECF.[[827]](#footnote-827) Victoria's decision to defer the implementation of NECF means that Envestra has proposed terms and conditions to give effect to a new regulatory regime that is not currently in place. There are also a number of clauses in the approved South Australian terms and conditions that Envestra has not proposed for its Victorian proposal. Envestra has not given any reasons for these.[[828]](#footnote-828)

The AER acknowledges Envestra's desire for nationally consistent terms and conditions. One reason is that it will enable Envestra, and the gas retailers with which it contracts, to take a consistent national approach to regulation and contracting on Envestra Networks.[[829]](#footnote-829)

However, AGL submits that there should be as much consistency as possible across all gas distribution agreements. It considers that the proposed access arrangements are less uniform than those proposed in previous review periods.[[830]](#footnote-830) Origin submits that the terms and conditions for all distributors in Victoria should be consistent using similar terminology, structure and content.[[831]](#footnote-831)

The AER therefore considers that there is a tension between Envestra's desire for nationally consistent terms and conditions across its networks and Network Users' desire for jurisdictionally consistent terms and conditions across the various Service Providers.

In assessing Envestra's proposed terms and conditions the AER has taken both points of view into consideration.

* + 1. Proposed revisions to terms and conditions

NECF

The NECF contains a number of provisions governing the relationship between gas distribution and retail businesses and consumers. It also contains two parts that govern the relationship between Network Users and Service Providers (retail support obligations).[[832]](#footnote-832) As discussed above, the Victorian Government has deferred the adoption and implementation of the NECF and these parts are not operative in Victoria.

Envestra states that the proposed Victorian General Terms and Conditions incorporate changes from its South Australian and Queensland terms and conditions to reflect the NECF.[[833]](#footnote-833) The AER notes that there are a number of clauses in Envestra's proposed terms and conditions that refer to or adopt provisions of the NECF.

In its submissions AGL suggested that in order to avoid confusion over which NECF provisions are incorporated in the access arrangements, all access arrangements should incorporate the NECF as if it was in force in Victoria.[[834]](#footnote-834) Origin submitted that:

* the NECF would largely ameliorate the need for gas access arrangement terms and conditions
* the terms and conditions for all service providers in Victoria should be consistent; and
* the AER should incorporate suitable provisions into the service providers' terms and conditions to accommodate a transition to the NECF once it commences in Victoria.[[835]](#footnote-835)

The AER considers that it would not be appropriate to require Envestra to implement the NECF as though it had been adopted in Victoria. This is because the Victorian Government has made a decision to delay its adoption. For the AER to require Envestra to implement the NECF as though it had been adopted in Victoria would be to act inconsistently with the policy of the Victorian Government and to pre-empt the Government's decision. Further, this approach would also create inconsistency between the terms and conditions and the current regulatory framework.

Sub-clause 22.1 of Envestra's proposed terms and conditions refers to the National Energy Retail Law (NERL) and the National Energy Retail Rules (NERR). Sub-clauses 21.5 and 23 refer to rule 510 of the NGR. The NERL, NERR and rule 510 of the NGR are components of the NECF reforms. These reforms have not been adopted in Victoria.

In order to avoid confusion arising from references to legislative instruments that are effective in other jurisdictions, but have not been adopted in Victoria, the AER requires these clauses to be amended.

The AER requires Envestra to amend its proposed terms and conditions as follows:

* Amend clause 21 by inserting a new clause 21.7 and duplicating NECF rule 510 of the NGR in that new clause.
* Amend sub-clause 21.5 by deleting "rule 510 of the National Gas Rules" and replacing it with "clause 21.7"
* Amend sub-clause 22.1 by inserting the following after "NERR":

(once they are adopted in Victoria)

* Amend clause 23 by deleting "Rule 510 of the National Gas Rules" and replacing it with "clause 21.7"

Haulage reference Services

The AER does not accept sub-clause 2.7. The AER requires Envestra to amend sub-clause 2.7 in accordance with Revision 12.1.

Sub-clause 28.2(f) permits Envestra to terminate the Agreement if it ceases to hold a distribution licence.

The AER considers that Envestra losing its distribution licence could potentially cause serious harm to Network Users and consumers. If Envestra was to lose its licence, it could no longer legally operate its network and no gas could be delivered.

Envestra's compliance with its licence conditions is solely within its control and is outside Network Users' control. Further, there is minimal scope for Network Users to avoid or mitigate the risk of Envestra losing its distribution licence.

The AER considers that these factors warrant an obligation for Envestra to exercise its best endeavours to avoid the loss of its distribution licence. The AER considers that such an obligation promotes the efficient operation and use of natural gas services, which is an aspect of the NGO.

The AER requires Envestra to amend sub-clause 2.7 as follows:

* Insert the following between "holds" and "whatever".

and exercise its best endeavours to ensure that it continues to hold

Guaranteed Service Level Payments

The AER does not accept clause 3. The AER requires Envestra to amend clause 3 in accordance with Revision 12.2.

Clause 7.6 of Envestra's current access arrangement contains obligations surrounding guaranteed service levels. Envestra proposes to remove these obligations for the 2013–17 access arrangement period.

The AER considers that including a clause requiring Envestra to notify a Network User when it makes a guaranteed service level payment is beneficial. It avoids the potential of duplicated payments. The AER considers avoiding duplication promotes the efficient operation of natural gas services, an aspect of the NGO.

AGL's submission highlighted this issue.[[836]](#footnote-836) Also, in its response to the retailers' submissions, Envestra stated that it was amenable to this amendment.[[837]](#footnote-837)

* The AER requires Envestra to amend clause 3 as follows:
* Insert new sub-clause 3.4 as follows:

The Service Provider must notify the Network User where it makes a Guaranteed Service Level payment directly to a Customer under the Regulatory instruments.

* The AER requires Envestra to amend clause 10 of its access arrangement as follows:
* Insert a new definition as follows:

Guaranteed Service Levels or GSL's means the standard of service that must be provided by the Service Provider in respect of certain Distribution Services as set out in a regulatory instrument.

Payments for Network User Services

The AER does not accept sub-clause 3.5. The AER requires Envestra to amend sub-clause 3.5 in accordance with Revision 12.3.

The AER considers that it is consistent with the NGO to require the inclusion of a clause that provides for payment by the Service Provider for services provided to it by the Network User. To not include such a term would limit Network Users' ability to seek payment for services they provide to Envestra. The AER considers that consistency with the NGO requires each party to receive appropriate compensation for services they provide as this promotes the efficient operation of gas services, which is an aspect of the NGO.

AGL highlighted this issue. It notes that the proposed terms and conditions do not include a provision for the payment of Network User services. AGL also submitted that the terms and conditions should include a clause similar to that SP AusNet or Multinet proposed.[[838]](#footnote-838)

In Envestra's response to the retailers' submissions, it stated that it was amenable to AGL's proposal.[[839]](#footnote-839)

The AER requires Envestra to amend sub-clause 3.5 as follows:

* Insert new sub-clause 3.5 as follows:

The Service Provider shall pay the Network User fair and reasonable fees in respect of any Retail Services provided by the Network User to the Service Provider at the request of the Service Provider.

The Network User may render an invoice to the Service Provider upon the provision of any Retail Services.

An invoice issued under clause 7.2(b) shall be in a format determined by the network User and must contain sufficient information as is reasonable to allow the Service Provider to assess the accuracy of the charges specified in the invoice.

If the Service Provider receives an invoice from the Network User the Service Provider must pay the Network User the aggregate amount stated in the invoice not later than 10 Business Days after having received the invoice.

If the Service Provider disputes the fairness or reasonableness of the charge for Retail Services or otherwise disputes its obligation to pay all or part of that invoice, the dispute will be resolved in accordance with the procedure set out in clause 23.

* Amend section 10 of the access arrangement proposal by inserting a new definition for Retail Services as follows:

Retail Services means the following services that are provided by a User to the Service Provider at the Service Provider’s request:

processing of Guaranteed Service Level payments;

notification of Reference Tariffs;

provision of information and documentation to Shared Customers; and

delivering to a Shared Customer any notification, information or documentation as requested by the Service Provider

but does not include any such services to the extent that the User is obliged to perform those services under the Regulatory Instruments;

Overselling capacity

The AER does not accept sub-clause 4.5. The AER requires Envestra to amend sub-clause 4.5 in accordance with Revision 12.4.

Sub-clause 4.5 provides that Envestra must not connect a new Delivery Point (DP) to the Network or expand the capacity of an existing DP if it believes that, under normal conditions there will be insufficient capacity in the Network to meet the anticipated demand.

The AER has concerns with unfettered discretion. Such discretions may allow a party to act on its own belief, regardless of whether it has a reasonable basis for that belief. The AER considers that this is not consistent with the NGO because it may allow an element of arbitrariness into the Agreement or create uncertainty. Such arbitrariness and uncertainty may create unnecessary additional risk to other parties. Such an outcome would not promote efficient investment in and operation of the network, which is an aspect of the NGO.

AGL highlighted this issue. AGL considers that Envestra's discretion must be reasonable.[[840]](#footnote-840) Also, in its response to the retailers' submissions Envestra stated that it was amenable in principle to this amendment.[[841]](#footnote-841)

* The AER requires Envestra to amend sub-clause 4.5 as follows:
* Insert "reasonably" between "Envestra" and "believes"

Maintenance and removal

The AER does not accept sub-clause 9.3. The AER requires Envestra to amend sub-clause 9.3 in accordance with Revision 12.5.

Sub-clause 9.3 relevantly provides that where a Metering Installation at a DP includes equipment for telemetry or interval metering and the law no longer requires that equipment at that DP, then the Network User will bear the costs of removing that equipment.

Envestra has not given any reasons for the inclusion of this sub-clause. However, in its draft decision on Envestra's South Australian access arrangement the AER referred to an analogous clause.[[842]](#footnote-842) In its submissions on its revised access arrangement proposal Envestra stated that it did not include the removal of interval meters in the cost of providing reference services.[[843]](#footnote-843)

The AER does not consider that it is reasonable for Envestra to be able to make a unilateral decision to remove the relevant equipment and require the Network user to pay. The AER considers that the terms and conditions should only oblige the Network User to pay removal costs where it requests Envestra to remove the equipment. If Envestra decides of its own accord that it wants to remove the equipment, it should bear the costs of doing so.

Requiring each party to bear the costs of a removal that it requests or decides on will cause the relevant party to make an assessment of the need or benefit to be obtained from removing the equipment. If the Network User could request the equipment's removal without bearing costs, or Envestra could remove it and demand the cost from the Network User, there would be no incentive to make an informed and considered decision.

The AER considers that the party that requires the removal of the equipment should cover the costs of removal. This provides an incentive for the party requesting removal to consider the most efficient use of that equipment and, therefore, promotes the efficient operation of Envestra's gas services, an aspect of the NGO.

AGL highlighted this issue. AGL submitted that this clause deemed the Network User liable for the costs of removal, regardless of the circumstances and that the Network user should only be liable for these costs where it has requested the removal.[[844]](#footnote-844)

* The AER requires Envestra to amend sub-clause 9.3 as follows:
* Insert the following phrase between the words "DP," and "then":

And the Network User requests that the equipment be removed,

Maximum correction

The AER does not accept sub-clause 10.8. The AER requires Envestra to amend sub-clause 10.8 in accordance with Revision 12.6.

Sub-clause 10.8 provides that Envestra will not have to correct the readings taken from any metering installation more than one year prior to the relevant test date, unless the law requires otherwise.

The language in the remaining meter accuracy clauses refers to 'the party that is responsible for a Metering Installation' and 'the other party'. This language is neutral and can apply to either Envestra or the Network User. However, the limitation in clause 10.8 is restricted to Envestra.

As this clause stands, if a Network User is responsible for a Metering Installation and readings from that Metering Installation have been inaccurate over a number of years, the Network User would have to correct the readings for the entire period of the inaccuracy.

The AER does not consider that this clause is consistent with the NGO. It applies to one party whereas the remaining meter accuracy clauses apply to both parties. There does not appear to be any reason for this imbalance. The AER considers that such imbalance could have a potential impact on consumer pricing.[[845]](#footnote-845) Making this obligation reciprocal promotes efficiency and places an incentive on each business to ensure their meter readings' accuracy. The promotion of efficiently operating gas services is an aspect of the NGO.

AGL highlighted this issue. It submitted that the AER should require Envestra to correct the readings as far back as possible if the reading would lead to an overcharge.[[846]](#footnote-846)

However, the AER does not accept AGL's further submission that where the reading would lead to an undercharge, Envestra should be limited to nine months.[[847]](#footnote-847)

The AER does not accept AGL's view that corrections should apply differently to Network Users and Envestra. The AER considers that this sub-clause should be reciprocal and that reciprocity promotes an efficiently operating gas service, which is an aspect of the NGO.

* The AER requires Envestra to amend sub-clause 10.8 as follows:
* Delete the word "Envestra" in the first line and replace it as follows:

The party responsible for a Metering Installation

* Delete the word "Envestra" in the second line and replace it with the word "it".

No measurements

The AER does not accept sub-clause 11.7. The AER requires Envestra to amend sub-clause 11.7 in accordance with Revision 12.7.

Sub-clause 11.7 provides for the manner in which Envestra will estimate the volume of gas delivered at a DP if the meter does not measure the volume at the DP. Factor (c) is "on whatever basis Envestra considers reasonable in the circumstances."

The AER has outlined its concerns with unfettered discretions above.[[848]](#footnote-848) Accordingly, the AER considers that the criterion of reasonableness should be objective and not what Envestra considers to be reasonable.

* The AER requires Envestra to amend sub-clause 11.7 as follows:
* Delete the phrase "whatever basis Envestra considers reasonable in the circumstances" and replace it with

A basis that is reasonable in the circumstances.

Specifications

The AER does not accept sub-clause 12.1. The AER requires Envestra to amend sub-clause 12.1 in accordance with Revision 12.8.

Sub-clause 12.1 requires the Network User to ensure that gas delivered into the network by or for its account meets any specifications imposed by law, and to the extent consistent with the law, the specifications reasonably specified from time to time by Envestra.

Based on the information available to the AER, it considers that requiring a Network User to ensure that gas meets additional specifications beyond the specifications imposed by law is not in accordance with accepted good industry practice. The AER understands that upstream suppliers will not agree to obligations over the specifications imposed by law. The AER considers that allowing Envestra to unilaterally specify additional specifications beyond accepted standards will create uncertainty and may place Network users in a position where they are unable to comply. This obligation and its potential to lead to uncertainty creates additional risk to the Network User, which does not promote efficient investment in and operation of the Network, aspects of the NGO.

The AER's decision takes into account AGL's submission that Specifications should cover gas quality sufficiently and is what is referenced in the upstream agreements.

The AER requires Envestra to amend sub-clause 12.1 as follows:

* Delete the following phrase

And, to the extent consistent with the law, the specifications reasonably specified from time to time by Envestra by notice given to the Network User.

Temperature

The AER does not accept sub-clause 12.2. The AER requires Envestra to delete sub-clause 12.2 in accordance with Revision 12.9.

Sub-clause 12.2 states that for the purposes of sub-clause 12.1 Envestra notifies the Network User that gas delivered into the network must have a temperature of at least two degrees Celsius.

For the reasons discussed in relation to sub-clause 12.1 above, the AER considers that Envestra should not be able to impose additional specifications. Further, the AER's proposed amendment to sub-clause 12.1 renders this sub-clause unnecessary.

The AER's decision takes into account AGL's submission that a Network User's ability to control temperature is limited to what is in the specifications.

The AER requires Envestra to delete sub-clause 12.2.

Failure to comply

The AER does not accept sub-clause 12.3. The AER requires Envestra to amend sub-clause 12.3 in accordance with Revision 12.10.

Sub-clause 12.3 provides for Envestra to undertake a number of acts it considers necessary if gas delivered into the Network does not meet the Specifications.

The AER has outlined its concerns with unfettered discretions above.[[849]](#footnote-849) Accordingly, the AER considers that Envestra should only be able to exercise this discretion reasonably.

AGL and Origin highlighted this issue. They submitted that Envestra's discretion should be reasonable.[[850]](#footnote-850) Envestra stated that it was amenable in principle to including a reasonableness qualification.[[851]](#footnote-851)

* The AER requires Envestra to amend sub-clause 12.3 as follows:
* Insert the word "reasonable" between "other" and "steps".

Notice

The AER does not accept sub-clause 12.4(a). The AER requires Envestra to amend sub-clause 12.4(a) in accordance with Revision 12.11.

Clause 12.4(a) requires the Network User to notify Envestra as soon as practicable if there is a possibility that gas, which does not meet the specifications, may be delivered into the Network.

Clause 12.4(b) refers to Envestra becoming aware that gas that does not meet the specifications is being or may be delivered into the Network. The AER considers that the language between these two sub-clauses should be consistent. The AER also considers that it is important to the stability and efficient operation of the Network that Envestra be notified at the earliest possible stage that gas that does not meet the specifications is being delivered into the Network.

For the purposes of clarity the AER considers that clause 12.4(a) should make it clear that the Network User must notify Envestra if it becomes aware that off specification gas has been delivered into the Network. This obligation is designed to ensure the efficient operation and use of Envestra's gas services, which is an aspect of the NGO.

* The AER requires Envestra to amend sub-clause 12.4(a) as follows:
* At the end of the sub-clause insert the following:

Or if it becomes aware that such gas is being or has been delivered into the Network by or for the account of the Network User.

Payment of Charges

The AER does not accept sub-clause 19.2. The AER requires Envestra to amend sub-clause 19.2 in accordance with Revision 12.12.

Sub-clause 19.2 provides that Envestra is entitled to charge for Ancillary reference Services requested by the Network User and that the charge will be calculated from time to time in accordance with the Agreement and the applicable Tariff Schedule.

The AER considers that Envestra should not be permitted to charge for a service it has not provided in full, unless it was unable to complete the service because of an act or omission of the Network User or an event beyond its control. The AER considers that where Envestra has been unable to provide the Ancillary Reference Service in full because of an act or omission by the Network User or an event beyond its control, Envestra should be able to charge a pro-rata amount.

The AER considers that this requirement will provide incentives for Envestra to provide Ancillary Reference Services promptly and fully and the Network User not to impede the full and prompt provision of that service. This will promote the efficient operation and use of Envestra's gas services, which is an aspect of the NGO.

AGL submitted that Envestra should only be allowed to charge for Ancillary Services that have been completed.[[852]](#footnote-852) Envestra responded that it was amenable in principal to AGL's proposed amendment.[[853]](#footnote-853)

* The AER requires Envestra to amend sub-clause 19.2 as follows:
* Insert (a) at the beginning of the first line:
* Insert the following at the end of the first sentence:

after Envestra has provided the requested Ancillary Reference Service

* Insert the following new sub-clause:

(b) Where Envestra is unable to provide the Ancillary Reference Service or unable to fully provide the Ancillary Reference Service because of an act or omission by the Network User or an event beyond its control, Envestra may calculate the charge on a pro-rata basis for the portion of the Ancillary Reference Service provided.

Adjustment of Charges

The AER does not accept sub-clause 22.3. The AER requires Envestra to delete sub-clause 22.3 in accordance with Revision 12.13.

This clause sets out when Distribution Service Charges contained in a statement of charges may be varied. Sub-clause 22.3 specifies a time limit for adjustments.

The AER notes that sub-clauses 22.1 and 22.2 are based on rule 508 of the proposed National Gas (National Energy Retail Law) Amendment Rules, which implement NECF. Sub-clause 22.3 is additional to rule 508. The AER considers that where Envestra has chosen to mirror these proposed amendments in its terms and conditions, it should not be permitted to limit the operation of the proposed amendment.

Further, the AER agrees with the view expressed by AGL that a Network User's ability to dispute incorrect charges should not be limited and that there is a need to be able to recover incorrectly billed charges when they are identified.[[854]](#footnote-854)

There may be circumstances that prevent the identification of an incorrect charge for some time, regardless of the steps the parties take to verify the accuracy of statements of charges. In these circumstances, the party who benefits from the incorrectly billed amount should not be permitted to obtain a windfall gain. This is especially the case where the benefitting party is responsible for the error.

The AER considers that the deletion of this sub-clause prevents either party from benefitting from a windfall gain and removes an incentive to take active steps to conceal an overcharge. It also gives the parties an incentive to resolve outstanding issues in a timely manner. This minimises price distortions from inadvertent or deliberate overcharging being passed on to consumers. It will also aid the efficient operation of the gas system, which is an aspect of the NGO.

The AER requires Envestra to amend sub-clause 22.3 as follows:

* Delete sub-clause 22.3

Overdue Interest

The AER does not accept sub-clause 26.1. The AER requires Envestra to amend sub-clause 26.1 in accordance with Revision 12.14.

Sub-clause 26.1 places an obligation on the Network User to pay interest on any amount that is not paid by the due date.

The AER considers that the proposed terms and conditions contain a number of obligations on each party to make payments or refunds. It is reasonable to expect that any payment or refunds will be paid within a required or specified time frame. Where a payment or refund is not made within a specified or required timeframe, it is a standard business practice to impose interest.

The AER considers that allowing the charging of interest acts as an incentive on the parties to make payments by the due date. For this reason, the AER agrees with the submissions made by AGL that the obligation to pay interest should be reciprocal where one party needs to pay or make a repayment to the other.[[855]](#footnote-855) Further, the AER agrees with Origin that this obligation should be reciprocal for any amounts that the Network User is owed by Envestra.[[856]](#footnote-856)

The AER considers that the inclusion of an overdue interest clause is consistent with the NGO, and should apply to both parties where applicable. The AER does not see why an overdue interest clause should be a unilateral obligation, as proposed by Envestra. The AER considers that incentivising each party to pay due amounts by the due date encourages the efficient operation of the network and imposes a disincentive on non-payment. The absence of such a disincentive could cause price distortions if Network Users had to recoup un-refunded amounts via increased customer charges. Such price distortions would not be in the long term interests of consumers, which is an aspect of the NGO.

In its response to the retailers' submissions Envestra stated that it was amenable to this change.[[857]](#footnote-857)

* The AER requires Envestra to amend sub-clause 26.1 as follows:
* In the first line, delete "the Network User" and replace with "a party"
* In the first line, delete "Envestra" and replace with "the other party"
* In the second line, delete "the Network User" and replace with "that party"
* In the second line, delete "Envestra" and replace with "the other party"
* In the fifth line, delete "to Envestra"

Right to Set Off Unpaid Amounts

The AER does not accept sub-clause 26.2. The AER requires Envestra to amend sub-clause 26.2 in accordance with Revision 12.15.

Sub-clause 26.2 provides for a party to set off unpaid amounts against amounts owing.

Clause 23 adopts the process for disputing a statement of charges specified in r. 510 of the National Gas (National Energy Retail Law) Amendment Rules SA 2012. That rule provides for the payment of the undisputed amount of the statement of charges or 80 per cent of the total amount due. Where a party has acted in accordance with this term of the agreement, the other party should not be able to set off the difference between the amount paid and the amount claimed. This would render the adopted r. 510(c) in clause 23 nugatory.

The AER considers that to be consistent with the NGO, an access arrangement should not contain terms that derogate from rights created in other provisions. This can potentially lead to uncertainty and disputes over the interpretation of the terms and conditions. Such an outcome is not efficient and has the potential of increasing each party's expenses, which could then be passed through to consumers. The AER considers that clear, consistent and unambiguous terms and conditions avoid uncertainty and promote efficiently operating gas services, which is an aspect of the NGO.

Accordingly, the AER agrees with AGL's submission that this sub-clause should be subject to clause 23, which sets out the process for disputing a statement of charges.[[858]](#footnote-858)

* The AER requires Envestra to amend sub-clause 26.2 as follows:
* Insert "and clause 23" after "sub-clause 21.5"

Right to Suspend Services

The AER does not accept sub-clause 26.3. The AER requires Envestra to amend sub-clause 26.3 in accordance with Revision 12.16.

Sub-clause 26.3 provides that if a Network User does not pay any amount due to Envestra, then Envestra may cease delivering gas through any DP and may cease performing any of its other obligations until such time as the Network User has paid in full all unpaid amounts due to Envestra.

Envestra has a legitimate interest in ensuring that it receives payment for the services it provides and the inclusion of terms that achieve this outcome is consistent with the NGO. However, the AER considers that this sub-clause specifies a significant sanction for non payment. This sub-clause would arguably permit Envestra to cease delivering gas to all Shared Customers if a Network User was $1 in arrears. The AER does not consider that such an outcome is consistent with the NGO. As suggested by AGL, this clause appears to permit Envestra to randomly target innocent customers and has the same effect as terminating the agreement.[[859]](#footnote-859)

The terms and conditions provide a number of remedies to Envestra where there is an amount outstanding.[[860]](#footnote-860) Envestra would also have recourse to the general law. Accordingly, the AER considers that there is adequate protection and remedies available to Envestra in the event that payment is not made by the due date.

The AER considers that a remedy that affects consumers and potentially allows Envestra to cut their gas supply due to a minor breach by a Network User is not consistent with the NGO. Such a remedy is extreme and in the circumstances where there are other, less onerous remedies available, unnecessary. The AER considers that this remedy is not consistent with a secure and reliable supply of natural gas and creates uncertainty that is not in the long term interests of consumers, aspects of the NGO.

The AER agrees with AGL that this sub-clause essentially permits Envestra to punish consumers for the failure of a Network User.[[861]](#footnote-861) The AER is also concerned at the lack of any qualification on the application of this clause. The AER considers that the inclusion of this clause is not consistent with the long term interests of consumers with respect to reliability and security of supply of natural gas, which is an aspect of the NGO.

The AER requires Envestra to amend sub-clause 26.3 as follows:

* Delete sub-clause 26.3

Credit Support

The AER does not accept sub-clauses 27.4 and 27.6. The AER requires Envestra to amend sub-clauses 27.4 and 27.6 in accordance with Revision 12.17.

Clause 27 sets out the processes relating to obtaining, drawing on and refunding credit support. This clause was not included in Envestra's South Australian or Queensland access arrangements approved by the AER[[862]](#footnote-862) and appears to be based on the credit support provisions in the National Gas (National Energy Retail Law) Amendment Rules SA 2012. However, the AER notes that some aspects of those credit support provisions that benefit Network Users have not been adopted by Envestra.

The AER considers the general approach taken by Envestra, of adopting provisions from rules that are intended to govern the relationship between service providers and Network Users, is appropriate. This approach avoids inconsistency between contract and regulatory obligations and achieves administrative efficiency.

The AER notes AGL's concerns with the credit support regime included in the National Gas (National Energy Retail Law) Amendment Rules SA 2012 and that it has foreshadowed the possibility of amendments. However, this outcome is by no means certain. The AER considers that where a Service Provider has proposed a term that mirrors a regulatory regime, it is desirable to retain that term because of the benefits arising out of consistency. The AER also considers that notwithstanding AGL's concerns, the parties will be required to comply with the relevant term in the National Gas (National Energy Retail Law) Amendment Rules SA 2012, once it is adopted by Victoria. As things currently stand, that will be in the form of the clause proposed by Envestra. Accordingly, the AER considers that Envestra's general approach is appropriate and consistent with the NGO.

However, the AER is concerned that Envestra chose not to fully adopt the regulatory approach, and excluded provisions that benefit Network Users. The AER does not consider such an approach to be consistent with the NGO as it is weighted in favour of Envestra. This places additional burdens on Network Users which could result in higher costs being passed onto consumers.

The AER considers that as Envestra has proposed an approach that largely adopts the provisions contained in the National Gas (National Energy Retail Law) Amendment Rules SA 2012, the interests of consistency with the NGO require it to fully adopt that approach. To allow Envestra to partially adopt that approach is to balance the credit support regime in favour of Envestra. This places a burden on Network Users which could potentially feed into higher prices for consumers.

The AER considers that Envestra should be obliged to refund credit support or a portion thereof where an independent expert appointed pursuant to clause 37 finds that it was not entitled to it. To allow Envestra to retain incorrectly requested funds or not pay interest would be inconsistent with these terms and conditions, potentially leading to another dispute and would also financially disadvantage the Network User. The AER considers that this would not be consistent with an efficiently operating network and the efficient operation and use of Envestra's gas service and could lead to unjustifiable price increases for consumers. This is not in the long term interests of consumers, which is an aspect of the NGO.

AGL submitted that the changes made to the credit support regime in the National Gas (National Energy Retail Law) Amendment Rules SA 2012 were not consulted on and took the retail sector by surprise and are likely to be the subject of a rule change request. AGL submits that the National Gas (National Energy Retail Law) Amendment Rules SA 2012 credit support obligations should not be replicated in Envestra's terms and conditions and the credit support obligations proposed in Multinet's terms and conditions should be adopted by Envestra.[[863]](#footnote-863)

Australian Power and Gas submitted its support for a provision to implement the National Gas (Retail Support) Amendment Rules 2012 immediately following their commencement in Victoria.[[864]](#footnote-864)

The AER notes that the retailers that made submissions on the credit support obligation was concerned with the form of the obligation rather than the inclusion of such an obligation.

* The AER requires Envestra to amend sub-clauses 27.4 and 27.6 as follows:
* Amend Sub-clause 27.4 by inserting (1) at the start of the sub-clause and inserting:

(2) Where an independent expert appointed under clause 37 determines that Envestra was not entitled to the credit support provided by the Network user, in whole or in part, Envestra must:

(a) reimburse the Network User for any costs incurred to procure the credit support (including the costs of funding any cash collateral provided to the issuer of credit support), in excess of the costs that the Network User would have incurred if the correct amount had been requested; and

(b) pay the Network User interest at the default interest rate on the amount of those excess costs.

* Delete sub-clause 27.6 and replace it as follows:

Envestra may only apply or draw on the credit support if:

(a) Envestra has given not less than 3 business days’ notice to a retailer that it intends to apply or draw on the credit support in respect of an amount due and payable by the Network user to Envestra, and that amount remains outstanding; and

(b) there is no unresolved dispute under clauses 23 or 37 of this Agreement about the Network User's liability to pay that amount.

Termination by Envestra

The AER does not accept sub-clause 28.2. The AER requires Envestra to amend sub-clause 28.2 in accordance with Revision 12.18.

Sub-clause 28.2 provides the circumstances where Envestra may terminate the Agreement with seven days notice.

Envestra submitted that sub-clauses 28.2(d) and (i) are new when compared to its South Australian and Queensland access arrangements. Sub-clause 28.2(d) is intended to cover the situation where under section 41 of the Victorian Gas Industry Act 2001, the Essential Service Commission appoints an administrator where the security of gas supply is threatened by a contravention of a licence condition. Sub-clause 28.2(i) enables termination where Envestra ceases to hold its gas distribution licence.[[865]](#footnote-865)

The AER considers that termination of an Agreement with Network Users would have serious consequences for Shared Customers supplied by that Network User. Consumers would arguably be left without the supply of gas with less than seven days notice (after receiving notice from Envestra the Network User would then have to notify its customers, often by mail, thus reducing the amount of notice that consumers would receive).

As sub-clause 28.2(a) is drafted, Envestra could conceivably terminate the agreement, leaving a large number of consumers without a supply of gas, because a Network User fails to pay $1 by the due date. The AER considers this to be a perverse outcome that is not consistent with the NGO because it is not in the long term interest of consumers.

Envestra should be free to take steps necessary to protect its commercial interests. However, those steps should be consistent with the NGO. The AER considers that maintaining Envestra's right to terminate, subject to qualifications, is more consistent with the NGO. The AER considers that the provision of a notice and remedy period for non payment would continue to protect Envestra's commercial interests whilst also protecting the interests of consumers and achieving consistency with the NGO. Envestra would still be permitted to terminate if the payment was not made within the notice period. However, the long term interests of consumers, which is an aspect of the NGO, would be protected by removing Envestra's ability to terminate for minor breaches.

The AER's consideration is consistent with the concerns expressed by AGL and Origin. AGL submitted that Envestra's ability to terminate with seven days notice of a Network User's failure to pay any amount is particularly harsh and should be deleted. AGL also submitted that this clause does not take into account any disputes that may be subject to dispute resolution procedures.[[866]](#footnote-866) Origin submitted that sub-clause 28.2(a) allows Envestra to terminate the agreement where the Network User fails to pay any amount on time in the manner required by the agreement. Origin also submitted that there is no provision for a breach notice or cure period.[[867]](#footnote-867)

The AER considers that the remaining grounds of termination in sub-clause 28.2 apply to matters that are more serious than small delays in payment or non payment of small sums. The AER considers that each of these grounds could have an effect on the efficient operation and use of Envestra's gas services and are therefore consistent with the NGO.

The AER also considers that Envestra should not be able to terminate the agreement where there is either a disputed invoice under clause 23 or the dispute resolution mechanism process under clause 37 has been commenced. To allow termination where these processes were in operation would render them nugatory. The AER does not consider that this outcome is consistent with the NGO. Accordingly, the AER requires this sub-clause to be subject to the dispute resolution processes in clauses 23 and 37.

* The AER requires Envestra to amend sub-clause 28.2 as follows:
* At the beginning of sub-clause 28.2 insert "Subject to clauses 23 and 37".
* At the end of sub-clause 28.2(a) insert the following:

and the Network User fails to pay the amount due within 14 days after it receives a written notice specifying the amount that is due.

Mitigation

The AER does not accept sub-clause 29.4 The AER requires Envestra to amend sub-clause 29.4 in accordance with Revision 12.19.

Sub-clause 29.4 obliges the Network user to use reasonable endeavours to mitigate every Claim it might have against Envestra.

The AER considers that a requirement on each party to mitigate any loss is consistent with the NGO. If such an obligation does not exist, the AER considers that there would be less incentive for a party that suffers loss to take steps to mitigate that loss. The absence of such an obligation could lead to increased costs or serious damage and loss that could have been avoided if the indemnified party had engaged in minor acts to mitigate the loss. Such an outcome would not be consistent with the efficient operation and use of Envestra's gas service and could affect the long term interests of consumers with respect to price, which are aspects of the NGO.

The AER's approach addresses AGL's submission that both parties should be required to mitigate their losses.[[868]](#footnote-868)

In its response to the retailers' submissions Envestra stated that it was amenable to this amendment.[[869]](#footnote-869)

* The AER requires Envestra to amend sub-clause 29.4 as follows:
* Delete the definition and replace it with:

A party must use reasonable endeavours to mitigate every claim it might have against the other party.

Exclusion of Economic Loss and Consequential Loss and Maximum Liability for Other loss

The AER does not accept sub-clauses 29.6&7 The AER requires Envestra to amend sub-clause 29.6&7in accordance with Revision 12.20.

Sub-clause 29.6 limits the extent of each party's liability to the other party by excluding economic or consequential loss in respect to a Claim.

Sub-clause 29.7 provides that each party's maximum liability for any other loss in relation to a Claim is $100 million.

Claim is defined in sub-clause 29.3 as a claim a Network User has, or believes it has against Envestra.

On their face, sub-clauses 29.6 and 29.7 apply to each party. However, they apply to a Claim, as defined. Because Claim is defined by reference to a claim a Network User has against Envestra, Envestra will never have a Claim. i.e. Envestra is not a Network User and, in any case, will not have a claim against itself.

Accordingly, whilst these sub-clauses appear to have application to both Network Users and Envestra, the definition of Claim means that in practice they will only apply to Network Users.

The AER considers that these sub-clauses should apply to Envestra as well as the Network Users. Accordingly, these sub-clauses should refer to all claims in general, not Claims as defined in sub-clause 29.3.

The AER considers that these sub-clauses, as they are currently drafted, could be misleading. They appear to have general application but are, in fact, limited to Network Users. These sub-clauses act to limit Envestra's liability whilst leaving Network Users with uncapped liability.

The AER does not consider that this is consistent with the NGO. The AER considers that exposing Network Users to uncapped liability creates a barrier to entry into the gas retail market. Any business seeking to become a Network User would be exposed to a high level of insurance costs to cover this uncapped liability. This would limit the retail market to large businesses. The likely result of this is reduced retail competition. This is not in the long term interests of consumers with respect to price, which is an aspect of the NGO.

The AER considers that making these caps mutual would remove this barrier to entry and be more consistent with the NGO.

The AER requires Envestra to amend sub-clauses 29.6 and 29.7 as follows:

* Delete "Claim" and replace it with "claim".

Death or Personal Injury

The AER does not accept sub-clause 33.3 The AER requires Envestra to amend sub-clause 33.3 in accordance with Revision 12.21.

Sub-clause 33.3 requires the Network User to indemnify Envestra against all loss, costs, expenses or damage which it might suffer or incur as the result of the death or injury of specified people caused by the Network User or its agents.

The AER considers that Envestra should offer a similar indemnity to this.

The AER considers that making a party liable for death or personal injury will act as a strong incentive on the party to develop appropriate procedures and safety measures to avoid causing death or personal injury. The AER considers that this is especially important when dealing with an industry that involves the use of vehicles, machinery and a potentially explosive substance.

The AER considers that it is consistent with the NGO to require each party to provide an indemnity in the same terms. Having an indemnity that incentivises a party to take positive steps to avoid or mitigate a particular harm will act to increase the efficient operation and use of Envestra's services. This will encourage the parties to take steps to avoid outcomes that could impact price and is consistent with the long term interests of consumers, which is an aspect of the NGO.

The AER's decision is supported by AGL's submission that this indemnity should be reciprocal[[870]](#footnote-870) and Origin's submission that liability clauses should be reciprocal in rights and obligations unless there is a clear reason to depart from this basic principal.[[871]](#footnote-871)

* The AER requires Envestra to amend clause 29 as follows:
* Delete point (b) from sub-clause 29.1
* Insert a new sub -clause 29.11 as follows:

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

Assistance

The AER does not accept sub-clause 32.2. The AER requires Envestra to amend sub-clause 32.2 in accordance with Revision 12.22.

Sub-clause 32.2 requires the Network User to cause or procure each shared customer or Upstream operator to provide Envestra at no cost with information, assistance or co-operation.

The AER is concerned at the extent of the obligation. To cause or procure a third party to do something requires the third party to either be legally obliged or compellable to do it, or willing to do it voluntarily. There may be situations where neither of these circumstances applies.

The AER considers that if a Network User has no means of compelling an unwilling third party to provide information, assistance or co-operation, it could potentially contravene this sub-clause despite having done everything within its power to comply. The AER does not consider that a clause that leads to a breach of the Agreement, notwithstanding that the party in breach did everything it could to avoid the breach is consistent with the NGO. Such a clause punishes a party for actions outside its control. The AER considers that this is not consistent with the efficient use or operation of Envestra's gas network, which is an aspect of the NGO. Accordingly, the AER considers that the obligation on the Network User should be limited to exercising its best endeavours.

The AER notes that the second line refers to information, assistance or co-operation Envestra might reasonably require. However, the final line refers to information, assistance or co-operation Envestra requires. The AER considers that these references should be consistent and the reference in the final line should be qualified as information, assistance or co-operation Envestra reasonably requires.

To leave this inconsistency could potentially lead to disputes, which could increase costs and would not be in the long term interests of consumers with respect to price, an aspect of the NGO.

AGL submitted that the Network User should be able to pass on any costs that are charged by the shared customer or Upstream operator.[[872]](#footnote-872) The AER does not consider that the Network User should be able to pass on these costs. In order to meet its obligation to provide information, assistance or co-operation to Envestra, there will be times when the Network user needs to obtain them from a third party, most likely a shared customer or Upstream Operator. Any cost incurred in doing so should be borne by the Network User as the costs of meeting its obligations.

* The AER requires Envestra to amend sub-clause 32.2 as follows:
* Insert "use its best endeavours to" between "will" and "cause".
* In the final line, insert "reasonably" between "Envestra" and "requires".

Network User's Breach

The AER does not accept sub-clause 33.1. The AER requires Envestra to delete sub-clause 33.1 in accordance with Revision 12.23.

Sub-clause 33.1 requires the Network User to indemnify Envestra against all loss, cost expense or damage which Envestra might suffer or incur as a result of the Network User's breach of the Agreement.

The indemnities provided in this clause are considerably more detailed and more onerous than those imposed by clause 13.5 of Envestra's current access arrangement. Envestra has not explained the reason for this change.

The AER's general approach to the allocation of risk, liability and indemnities is to consider that the interests of the NGO are achieved by requiring the risk to be borne by the party best placed to prevent or mitigate the risk. This will be in the long term interest of consumers with respect to cost and consistent with the NGO.

The AER also considers that where it is not apparent that one party is better placed than the other to prevent or mitigate a risk, the desirability of reciprocity in rights and obligations is consistent with the NGO. This is because reciprocity will incentivise each party to take steps to avoid the risk from arising and promote the efficient use and operation of Envestra's gas service. Avoiding risk will likely reduce costs, which will be in the long term interests of consumers with respect to price, an aspect of the NGO.

The AER considers that the indemnity contained in this sub-clause is extremely broad and does not contain an incentive on Envestra to mitigate or minimise its costs or loss. The provision of such a broad, unqualified indemnity reduces incentives on Envestra to mitigate its loss in the event that a Network User breaches the Agreement. A failure to mitigate loss is likely to lead to increased costs which the Network User would have to cover under the indemnity. These costs would then be likely to be passed on to consumers, which would not be in their long term interests.

The AER also considers that the general common law remedy of damages for breach of contract provides Envestra with adequate protection against any loss arising from a Network User's breach of the Agreement.

The concerns expressed by the AER and discussed above are consistent with AGL and Origin's submissions. AGL and Origin each submitted that:

* indemnities should be reciprocal
* Envestra should also be liable for loss caused through breach of the Agreement;[[873]](#footnote-873) and
* this is a general purpose indemnity for all breaches of contract and does not cover both parties equally, and such a broad indemnity is unnecessary.[[874]](#footnote-874)

The AER requires Envestra to amend sub-clause 33.1 as follows:

* Delete sub-clause 33.1.

User's Insurance

The AER does not accept clause 34. The AER requires Envestra to amend clause 34 in accordance with Revision 12.24.

This clause imposes a number of obligations on Network Users with respect to insurance.

The AER notes that insurance is covered by clause 13.4 in Envestra's current access arrangement. This clause is reciprocal and requires each party to have adequate insurance and provide proof of currency and adequacy of cover at the other party's reasonable request.

The AER considers that it is appropriate for any insurance taken out to note the interest of the other party. This provides that party with greater comfort and certainty that the level of potential risk it faces is reduced. This has the potential to reduce costs which is consistent with the NGO.

Both Multinet and SP Ausnet have included insurance clauses in their proposed terms and conditions which are reciprocal and require each party to have adequate insurance and provide proof of currency and adequacy of cover at the other party's reasonable request.[[875]](#footnote-875)

The AER considers it consistent with the NGO to require each party to have appropriate and adequate insurance. The failure of either a Network User or Envestra to take out appropriate and adequate insurance cover could cause the other party considerable harm in the event that a risk that was not insured occurred.

The AER considers that the inclusion of an insurance obligation is consistent with the NGO, and should apply to both parties where applicable. The AER does not see why an obligation to obtain and maintain insurance and provide proof of currency of insurance should be a unilateral obligation, as proposed by Envestra. The AER considers that incentivising each party to take out adequate and appropriate insurance cover encourages the efficient operation and use of services.

This approach will also avoid uncertainty that would be faced by a Network User if there was no obligation on Envestra to take out insurance. This uncertainty creates additional risk to the Network User, which does not promote efficient investment in and operation of the network an aspect of the NGO.

The AER's decision is supported by AGL's and Origin's submissions that the insurance obligations should be reciprocal.[[876]](#footnote-876) The AER has not followed Australian Power and Gas' submission that clause 34.2 effectively requires it to hold separate insurance to cover its relationship with Envestra.[[877]](#footnote-877)

* The AER requires Envestra to amend clause 34 as follows:
* Amend sub-clause 34.1 by deleting "The Network User" and replacing it with "Each Party".
* Amend sub-clause 34.1 by deleting "approved by Envestra (which approval shall not be unreasonably withheld)".
* Delete sub-clause 34.2 and replace it as follows:

If either party requires, the other party must ensure that any insurance it obtains or maintains under the Agreement notes the interest of the other party.

* Delete sub-clause 34.3 and replace it as follows:

Whenever reasonably requested by the other party, a party must give the other party a certificate of currency for the insurance.

* Delete sub-clause 34.4 and replace it as follows:

A party must promptly notify the other party whenever an event occurs in relation to the Network which gives rise to, or might give rise to, a claim under any insurance which the party holds under this Agreement.

* Delete sub-clause 34.5 and replace it as follows:

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

* Delete sub-clause 34.6.
* Delete sub-clause 34.7 and replace it as follows:

A party must promptly notify the other party if it fails to obtain or maintain any insurance required under the Agreement. In this case, the other party may obtain and maintain that insurance on behalf of that party at the costs of that party.

Access to Premises

The AER does not accept sub-clause 35.1. The AER requires Envestra to amend sub-clause 35.1 in accordance with Revision 12.25.

This is a new obligation that is not contained in Envestra's current access arrangement.

The AER considers that references to Shared Customers should be removed from sub-clause 35.1. The Network User does not own a Shared Customer's premises and will not be an agent of a Shared Customer. Accordingly, the Network User is not in a position to grant consent to Envestra to enter a Shared Customer's premises. Any consent granted by the Network User is also not sufficient to protect Envestra. The AER considers that it is not consistent with the NGO to require a Network User to agree to something it does not have the authority to agree and that, in any case, does not protect Envestra.

For similar reasons to those set out in Assistance above, the AER considers that any obligation on a Network User to cause or procure a Shared Customer's action should be qualified to exercising reasonable endeavours.

The AER also considers that whilst it is reasonable to not expect Envestra to perform the Agreement because it could not obtain safe, reasonable or unhindered access, it should be required to exercise its reasonable endeavours to do so. To allow Envestra to assert that it could not obtain access without having a requirement to exercise reasonable endeavours could lead to Envestra using this ground when it was not able to attend for some reason.

The AER considers that such an outcome would be inconsistent with the NGO. Requiring Envestra to exercise its reasonable endeavours will reduce the number of unsuccessful visits and promote the efficient operation of the network and the long term interests of consumers with respect to price, which is an aspect of the NGO.

The AER has considered AGL's submission that under the NECF, Envestra has equal responsibility for obtaining access and accordingly this clause should be deleted, or at least subject to Envestra taking reasonable steps to mitigate the reason for not obtaining access.[[878]](#footnote-878)

* The AER requires Envestra to amend sub-clause 35.1 as follows:
* Delete "or any Shared Customer" from sub-clause 35.1.
* Amend sub-clause 35.5 by inserting ",after exercising its reasonable endeavours to do so," between "obtain" and "safe".
* Amend sub-clause 35.7 by inserting "exercise its reasonable endeavours to" between "or" and "cause".

Assignment

The AER does not accept clause 39. The AER requires Envestra to amend clause 39 in accordance with Revision 12.26.

Clause 39 covers assignment of rights or obligations under the Agreement. Sub-clause 39.1 provides that a Network User may not transfer, assign or otherwise deal with its rights or obligations except in accordance with the Access Arrangement. There is nothing in the Access Arrangement dealing with the Network Users ability to assign or transfer its obligations. Accordingly, a Network User is prohibited from assigning or transferring its rights or obligations.

Sub-clause 39.2 permits Envestra to assign or transfer its rights or obligations to any person who purchases or acquires the Network or possession or control of it.

Clause 19.8 of Envestra's current access arrangement restricts either party from assigning any of its rights or obligations unless it has the written consent of the other party and provides that such consent must not be unreasonably withheld.

Consistent with the concerns raised by AGL and Origin[[879]](#footnote-879) the AER does not see any reason for preventing Network Users from assigning their rights or obligations. The AER considers that this prohibition places a considerable constraint on the business flexibility of Network Users. The AER also considers that there may be circumstances where a Network User needs to sell its gas retail business to maintain its overall financial viability. Preventing a Network user from doing so could potentially cause it to become insolvent and trigger a retailer of last resort event.

The AER considers this outcome would not promote the efficient use of Envestra's network and could result in increased prices, which is not in the long term interests of consumers, an aspect of the NGO.

Further, the AER considers that the lack of business flexibility stemming from this clause could act as a barrier to entry. A business considering entering the gas retail market could be discouraged from doing so if it was concerned that it would be prevented from selling its gas retail business for the life of the Agreement.

The AER therefore considers that the lack of reciprocity in this clause is not in the long term interests of consumers. Making this clause reciprocal is consistent with the NGO as it allows for greater business flexibility which is likely to encourage greater competition and lead to reduced prices in the long term interest of consumers.

* The AER requires Envestra to amend clause 39 as follows:
* Delete sub-clause 39.1.
* Amend the remaining sub-clauses so that they apply equally to either party.

Consents

The AER does not accept sub-clause 41.3. The AER requires Envestra to amend sub-clause 41.3 in accordance with Revision 12.27.

Sub-clause 41.3 provides that where any consent or approval is required from Envestra under the Agreement, it will have no obligation to give the consent or approval except where an obligation is imposed by law.

The AER considers that such a broad discretion is not consistent with the NGO. The AER generally considers that where a party is given a discretion, consistency with the NGO requires the discretion to be qualified with an element of reasonableness.

If Envestra is permitted to refuse to give consent under the Agreement, the uncertainty faced by Network Users would increase, as they could never know whether consent would be given or not. This arbitrariness and uncertainty create additional risk to the Network User, which does not promote efficient investment in and operation of the network an aspect of the NGO.

The AER considers that consistency with the NGO permits Envestra to exercise its discretion. However, such exercise should not be arbitrary. Accordingly, the AER considers that this discretion should be qualified.

AGL submitted that this provision should be deleted or qualified with a requirement on Envestra to consider all requests for consent or approval in a timely manner and to act reasonably.[[880]](#footnote-880)

* The AER requires Envestra to amend sub-clause 41.3 as follows:
* Delete sub-clause 41.3 and replace it with the following:

Where any consent or approval is required from Envestra under the Agreement, Envestra must not unreasonably withhold that consent or approval. Envestra may make any consent or approval subject to whatever conditions are reasonably necessary.

* 1. Capacity trading requirements

The capacity trading requirements of an access arrangement may allow a user to transfer, by way of a subcontract, all or any of the users contracted capacity to another user.[[881]](#footnote-881) In doing so, it may enable a secondary market with more efficient price signals and levels of usage.

The NGR provides that capacity trading requirements are to be included in a full access arrangement.[[882]](#footnote-882) In particular, the NGR requires that capacity trading requirements must provide for capacity transfers in accordance with the rules or procedures of the relevant gas market, if the service provider is registered as a participant in a particular gas market.[[883]](#footnote-883) If the service provider is not registered, or the rules or procedures do not address capacity trading requirements, a service provider is precluded from withholding consent unless it has reasonable grounds, based on technical or commercial considerations for doing so.[[884]](#footnote-884) Capacity trading requirements may specify conditions under which consent will or will not be given, and the conditions to be complied with if consent is given.[[885]](#footnote-885)

* + 1. AER decision

To ensure that the access arrangement is consistent with the NGR, the AER requires Envestra to amend its proposal to state that there are no applicable capacity trading requirements for the purposes of rule 48(1)(f) or 105(1) of the NGR.

The AER requires Envestra to amend clause 7 of its proposed access arrangement in accordance with Revision 12.28.

* + 1. Access arrangement proposal

Envestra’s proposal states that capacity trading is not possible on its network and capacity trading requirements therefore do not apply.[[886]](#footnote-886)

* + 1. Assessment approach

The AER has assessed Envestra's capacity trading requirements against the NGO and rules 48(1)(f) and 105 of the NGR.

* + 1. Reasons for decision

Capacity trading is not possible on the Victorian gas network (including on Envestra’s distribution network). This is different to most Australian gas markets, which are based on bilateral arrangements between producers, major users and retailers linked together through pipeline hubs connecting gas fields to gas consumers.[[887]](#footnote-887) By comparison, in Victoria a wholesale gas market has been established to enable competitive trading based on injections into and withdrawals from a transmission system that links multiple producers, major users and retailers.[[888]](#footnote-888) Under this model, Victorian gas networks (including Envestra’s distribution network) are subject to the Declared Wholesale Market Rules in Part 19 of the NGR, which do not provide for capacity trading. Rather, AEMO is responsible for managing capacity, on a daily basis, throughout the Victorian wholesale gas market.[[889]](#footnote-889)

Capacity trading is therefore not applicable to Envestra’s network.

However, the NGR require that the access arrangement include capacity trading requirements. As capacity trading requirements are not applicable to the Victorian gas network, in the AER’s view, it is enough for Envestra’s access arrangement to specify that there are no applicable capacity trading requirements for the purposes of rule 48(1)(f) of the NGR. This is also consistent with rule 105(1)(a) of the NGR,[[890]](#footnote-890) as there are no relevant rules or procedures governing the network regarding capacity trading that a set of capacity trading requirements would need to accord with.

* 1. Queuing arrangements

Queuing can be used to determine access to a pipeline that is fully, or close to being fully, utilised. Queuing requirements establish the priority that a prospective user has, against any other prospective user, to obtain access to spare and developable capacity on a covered pipeline.[[891]](#footnote-891) Queuing requirements establish a process or mechanism for establishing an order of priority between prospective users of spare and/or developable capacity.

In a distribution pipeline new users will typically be able to be accommodated because, unlike transmission pipelines, distribution networks do not operate close to full capacity. If use at one point in the network is nearing capacity, augmentation of the network will normally be undertaken to meet the needs of prospective users. Further, the capacity of Envestra’s distribution pipelines are managed by AEMO on a daily basis under Part 19 of the NGR (Declared Wholesale Market Rules) meaning that queuing arrangements are unnecessary (there is no queue).

Queuing requirements must be included in an access arrangement for a gas distribution pipeline where the AER notifies the service provider that the access arrangement must contain queuing arrangements.[[892]](#footnote-892) Where there are queuing requirements they must establish a process or mechanism (or both) for establishing an order of priority between prospective users of spare or developable capacity. This process must ensure that all prospective users (whether associates of, or unrelated to, the service provider) are treated on a fair and equal basis.[[893]](#footnote-893)

* + 1. AER decision

The AER accepts Envestra’s proposal in so far as it does not include queuing requirements.

* + 1. Access arrangement proposal

Envestra’s access arrangement proposal did not include any reference to queuing requirements.

* + 1. Assessment approach

The AER has assessed Envestra's proposal in relation to queuing requirements against the NGO and rules 48(1)(e) and 103 of the NGR.

* + 1. Reasons for decision

As the capacity of Envestra’s distribution pipeline is managed by AEMO, queuing arrangements are not applicable.

* 1. Extension and expansion requirements

Extension and expansion requirements included in an access arrangement specify the method for determining whether extensions or expansions to the covered pipeline are to be covered by the access arrangement.[[894]](#footnote-894)

Extension and expansion requirements must be included in an access arrangement.[[895]](#footnote-895) Extension and expansion requirements may state whether the applicable access arrangement will apply to incremental services to be provided as a result of a particular extension to, or expansion of the capacity of, the pipeline. The requirements may state that whether the access arrangement applies to the extension or expansion will be resolved at a later time on a basis stated in the requirements.[[896]](#footnote-896) If the requirements provide that an access arrangement applies to incremental services, the requirements must deal with the effect of the extension or expansion on tariffs.[[897]](#footnote-897)

* + 1. AER decision

The AER accepts Envestra’s proposal in relation to extensions and expansions.

* + 1. Access arrangement proposal

The Envestra proposal is that if Envestra proposes a high pressure pipeline extension of the covered pipeline, it must apply to the AER in writing to decide whether the proposed extension will be taken to form part of the covered pipeline and will be covered by the access arrangement. For these purposes, a high pressure pipeline extension is defined to mean a pipeline (operating above 1050 kPa) that exceeds one kilometre in length and is proposed to be built to a postcode area previously not serviced by reticulated gas.[[898]](#footnote-898)

Envestra’s proposal states that if an extension or expansion is to be treated as part of the covered network under the access arrangement, Envestra will offer the incremental service without changing the reference tariffs. However, Envestra states that it may levy a surcharge on users to recover non-conforming capital expenditure.[[899]](#footnote-899)

Envestra’s proposal is that any extensions to and expansions of the capacity of the network which are not high pressure pipeline extensions (extensions that are less than 1050kPa which do not meet the test outlined above) will be treated as part of the network and covered by the access arrangement.[[900]](#footnote-900)

Envestra states that its extensions policy allows for generic extensions of the network to be covered under the terms of the access arrangement. Envestra claims that this is necessary if Envestra is to carry out its core business in an efficient manner. Envestra states that notification or application to the AER in respect of extensions should only take place for those extensions which are significant and which were not incorporated into the approved capital expenditure forecasts for the 2013–17 access arrangement period.[[901]](#footnote-901)

Envestra states that a significant extension is one that does not routinely occur within the business and that if the threshold for a significant extension is set too low, it would result in the ‘the AER opining over numerous applications from distributors’ and that involving the AER in ‘business decisions that are of a routine nature is not desirable or appropriate’.[[902]](#footnote-902)

Envestra states that extensions to both high pressure mains operated under 1050 kPa, and to low and medium pressure mains are routine in nature and undertaken on a daily basis. [[903]](#footnote-903)

Envestra argues that the proposed policy strikes an appropriate balance of ensuring that the interests of users are protected, while routine extensions to the network are not subject to inappropriate or inefficient regulatory processes.[[904]](#footnote-904)

Treatment of covered pipelines

The Envestra access arrangement proposal is that if an extension or expansion is to be treated as a covered network under the access arrangement, Envestra will offer reference services for that extension or expansion at Reference Tariffs (i.e. no change to the Reference Tariffs). Envestra may levy a surcharge on Users to recover non-confirming capital expenditure in accordance with r. 83 of the NGR.[[905]](#footnote-905)

Envestra will notify the AER to seek approval of any proposed surcharge to be levied on Users of incremental services, and designed to recover non-conforming capital expenditure or a specified portion of non-conforming capital expenditure (non-conforming capital expenditure, which is recovered by means of a surcharge will not be rolled into the capital base). Surcharges will only be approved subject to r. 83(4) of the NGR.[[906]](#footnote-906)

* + 1. Assessment approach

The AER has assessed Envestra's extension and expansion requirement against the NGO and rules 48(1)(g) and 104 of the NGR.

* + 1. Reasons for decision

Coverage – high pressure pipelines

The AER considers that all extensions to high pressure pipelines should be assessed on a case-by-case basis for coverage—consistent with its previous decisions.[[907]](#footnote-907) The AER will be better placed to consider such matters at the time it is notified of a proposed high pressure pipeline extension. There could be many different factors that would impact on whether a high pressure pipeline extension should be covered and whether it should be covered by the same terms as the original pipeline.

For example:

* High pressure pipelines have similar characteristics to transmission pipelines, and could be used either as viable bypass options to end users, or to support the existing network. In this instance, the extension could lead to some competition for pipeline services meaning that it may not be necessary for the extension to be covered.
* The pipeline can be extended for a variety of reasons such as servicing a large industrial user requiring the network to be extended to its premises or supporting the distribution network generally. Where it is supporting the distribution network generally it may be appropriate for the extension to be covered on the same terms as the original network. Non coverage could lead to cross-subsidisation.

Therefore, the reasons for the extension and the degree of its integration into the existing network will assist in determining whether the extension should be covered.

Pipelines that potentially extend to new parts of the market warrant consideration by the AER. New areas outside the current geographic reach of the network will be more likely to be serviced by high pressure pipelines. The AER accordingly considers that if a high pressure pipeline extension is planned, then an application should be made to the AER for a decision as to whether or not the extension is part of the covered pipeline. The use of ‘high pressure’ provides a means of generally distinguishing in-fill from new extensions to areas and customers.

The AER considers that distinguishing the treatment of high pressure pipelines is beneficial. In particular, it will promote the efficient investment in, operation and use of natural gas services for the long term interests of consumers of natural gas in accordance with the NGO.[[908]](#footnote-908)

Coverage – low and medium pressure pipelines

The AER considers that all low and medium pressure pipeline extensions should be covered by the access arrangement. Low and medium pressure pipeline extensions to distribution networks are often embedded in and occur throughout the network. Coverage by default will allow such extensions to be built and covered by the access arrangement. This is likely to contribute to the promotion of the efficient investment in, and operation and use of, natural gas services for the long-term interests of consumers of natural gas with respect to safety, reliability and security of supply of natural gas.[[909]](#footnote-909) For these reasons, the AER considers that all low and medium pipeline extensions should be covered by default.

Coverage – expansions

The AER proposes to accept Envestra’s proposal that all expansions to its distribution network will be covered by the access agreement. Network expansions involve the augmentation of pipeline capacity within the existing network, and are likely to be used largely by existing network customers. Relative to network extensions, they are much less likely to serve a new or isolated customer or group of customers as a bypass option. As such, it is appropriate that any network expansions are covered as reference services under the access agreement. This provides certainty to end users.

The AER considers that coverage on this basis would promote the efficient investment in, operation and use of natural gas services, which are aspects of the NGO.

The AER proposes to accept Envestra’s proposed extensions and expansions policy.

* 1. Terms and conditions for changing receipt or delivery points

A receipt or delivery point is a point on a pipeline at which a service provider takes delivery of natural gas, or delivers natural gas.[[910]](#footnote-910) A user may wish to change the point at which they receive or take delivery of natural gas.

The terms and conditions for changing receipt and delivery are to be included in a full access arrangement.[[911]](#footnote-911) Under the NGR an access arrangement must allow a user, with the service provider's consent, to change the user's receipt or delivery point. The access arrangement must not allow a service provider to withhold its consent unless it has reasonable grounds, based on technical or commercial considerations, for doing so.[[912]](#footnote-912) The access arrangement may specify conditions under which consent will or will not be given to be complied with if consent is given.[[913]](#footnote-913)

* + 1. AER decision

The AER requires Envestra to incorporate a term into its proposal which allows users to change their receipt/ delivery points unless Envestra has reasonable grounds, based on technical or commercial considerations, for withholding consent for such a change. The proposal must also explain:

* how users may obtain consent, including identifying any relevant conditions, to change receipt or delivery points;
* where relevant, the technical or commercial considerations and other relevant conditions in the event Envestra intends to withhold consent to a change in a receipt or delivery point.

The AER considers that Envestra’s access arrangement proposal should be amended to provide for a policy for the change of receipt or delivery points in the same terms as the policy proposed by SP AusNet.

* + 1. Access arrangement proposal

Envestra’s proposal does not include any terms and conditions for changing receipt and delivery points – although the Regulation Information Notice sent to Envestra specified that its proposal should state:

* how users may obtain consent, including identifying any relevant conditions, to change receipt or delivery points;
* where relevant, the technical or commercial considerations and other relevant conditions in the event Envestra intends to withhold consent to a change in a receipt or delivery point.[[914]](#footnote-914)
  + 1. Assessment approach

The AER has assessed Envestra's terms and conditions for changing receipt and delivery points against the NGO and rules 48(1)(h) and 106 of the NGR.

* + 1. Reasons for decision

Allowing a user to change its receipt/delivery points may allow users to respond more efficiently to demand and encourage the more efficient use of gas. This would be consistent with the NGO.

The AER is unclear as to why Envestra did not include terms and conditions for changing delivery points in its access arrangement proposal when this is a mandatory requirement of a full access arrangement under the NGR. [[915]](#footnote-915) Envestra’s failure to include terms and conditions for changing delivery points in its access arrangement means that the proposal is non-compliant with rule 106 of the NGR. On this basis, the AER proposes not to approve Envestra’s access arrangement in this regard.

* 1. Review dates

Rule 49(1) of the NGR requires that a full access arrangement that is not voluntary must contain a review submission date and a revision commencement date and must not contain an expiry date.

The NGR provides that, as a general rule:

* a review submission date will fall four years after the access arrangement took effect or the last revision commencement date; and
* a revision commencement date will fall five years after the access arrangement took effect or the last revision commencement date.[[916]](#footnote-916)

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.[[917]](#footnote-917) It may also 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.[[918]](#footnote-918)

* + 1. AER decision

The AER proposes to accept Envestra’s proposed revision commencement date but not its review submission date.

* + 1. Access arrangement proposal

Envestra proposed a review submission date on or before 31 March 2017 and a revision commencement date on the later of 1 January 2018 and the date on which the AER’s approval of the revisions to the access arrangement takes effect under the NGR.[[919]](#footnote-919)

Envestra’s access arrangement proposal did not include a trigger event for the acceleration of the review submission date.

* + 1. Assessment approach

The AER has assessed Envestra's review submission date and revision commencement date against the NGO and rules 48(1)(i) and 48(1)(j) of the NGR.

* + 1. AER consideration

The review submission date of 31 March 2017 proposed by Envestra is later than the 1 January 2017 date indicated by the general rule under r. 50(1) of the NGR and the AER proposes not to accept it. However, Envestra’s proposed revision commencement date is consistent with the general rule and the AER proposes to accept it.

* 1. Revisions

Before the access arrangement can be approved, Envestra must make the following amendments.

Revision 12.1: Amend clause 2.7 as follows:

Insert the following between "holds" and "whatever":

and exercise its best endeavours to ensure that it continues to hold

Revision 12.2: Amend clause 3 as follows:

Insert new sub-clause 3.4 as follows:

The Service Provider must notify the Network User where it makes a Guaranteed Service Level payment directly to a Customer under the Regulatory instruments.

Insert a new definition in clause 10 of the access arrangement as follows:

Guaranteed Service Levels or GSL's means the standard of service that must be provided by the Service Provider in respect of certain Distribution Services as set out in a regulatory instrument.

Revision 12.3: Amend clause 3 as follows:

Insert new sub-clause 3.5 as follows:

The Service Provider shall pay the Network User fair and reasonable fees in respect of any Retail Services provided by the Network User to the Service Provider at the request of the Service Provider.

The Network User may render an invoice to the Service Provider upon the provision of any Retail Services.

An invoice issued under clause 7.2(b) shall be in a format determined by the network User and must contain sufficient information as is reasonable to allow the Service Provider to assess the accuracy of the charges specified in the invoice.

If the Service Provider receives an invoice from the Network User the Service Provider must pay the Network User the aggregate amount stated in the invoice not later than 10 Business Days after having received the invoice.

If the Service Provider disputes the fairness or reasonableness of the charge for Retail Services or otherwise disputes its obligation to pay all or part of that invoice, the dispute will be resolved in accordance with the procedure set out in clause 23.

Amend section 10 of the access arrangement proposal by inserting a new definition for Retail Services as follows:

Retail Services means the following services that are provided by a User to the Service Provider at the Service Provider’s request:

- processing of Guaranteed Service Level payments

- notification of Reference Tariffs

- provision of information and documentation to Shared Customers; and

-delivering to a Shared Customer any notification, information or documentation as requested by the Service Provider

but does not include any such services to the extent that the User is obliged to perform those services under the Regulatory Instruments;

Revision 12.4: Amend sub-clause 4.5 as follows:

Insert "reasonably" between "Envestra" and "believes"

Revision 12.5: Amend sub-clause 9.3 as follows:

Insert the following phrase between the words "DP," and "then":

And the Network User requests that the equipment be removed,

Revision 12.6: Amend sub-clause 10.8 as follows:

Delete the word "Envestra" in the first line and replace it as follows:

The party responsible for a Metering Installation

Delete the word "Envestra" in the second line and replace it with the word "it".

Revision 12.7: Amend sub-clause 11.7(c) as follows:

Delete the phrase "whatever basis Envestra considers reasonable in the circumstances" and replace it with

A basis that is reasonable in the circumstances.

Revision 12.8: Amend sub-clause 12.1 as follows:

Delete the following phrase

and, to the extent consistent with the law, the specifications reasonably specified from time to time by Envestra by notice given to the Network User.

Revision 12.9: Amend sub-clause 12.2 as follows:

Delete sub-clause 12.2.

Revision 12.10: Amend sub-clause 12.3 as follows:

Insert the word "reasonable" between "other" and "steps".

Revision 12.11: Amend clause 12.4(a) as follows:

At the end of the sub-clause insert the following:

Or if it becomes aware that such gas is being or has been delivered into the Network by or for the account of the Network User.

Revision 12.12: Amend sub-clause 19.2 as follows

Insert (a) at the beginning of the first line:

Insert the following at the end of the first sentence:

after Envestra has provided the requested Ancillary Reference Service

Insert the following new sub-clause:

(b) Where Envestra is unable to provide the Ancillary Reference Service or unable to fully provide the Ancillary Reference Service because of an act or omission by the Network User, Envestra may calculate the charge on a pro-rata basis for the portion of the Ancillary Reference Service provided.

Revision 12.13: Amend clause 21 as follows:

inserting a new clause 21.7 and duplicate NECF rule 510 of the NGR in that new clause.

Amend sub-clause 21.5 by deleting "rule 510 of the National Gas Rules" and replacing it with "clause 21.7"

Revision 12.14: Amend sub-clause 22.1 as follows:

Amend sub-clause 22.1 by inserting the following after "NERR":

(once they are adopted in Victoria)

Revision 12.15: Delete sub-clause 22.3

Revision 12.16: Amend clause 23 as follows:

delete "Rule 510 of the National Gas Rules" and replace it with "clause 21.7"

Revision 12.17: Amend sub-clause 26.1 as follows:

In the first line, delete "the Network User" and replace with "a party"

In the first line, delete "Envestra" and replace with "the other party"

In the second line, delete "the Network User" and replace with "that party"

In the second line, delete "Envestra" and replace with "the other party"

In the fifth line, delete "to Envestra"

Revision 12.18: Amend sub-clause 26.2 as follows:

Insert "and clause 23" after "sub-clause 21.5"

Revision 12.19: Delete sub-clause 26.3

Revision 12.20: Amend clause 27 as follows:

Amend Sub-clause 27.4 by inserting (1) at the start of the sub-clause and inserting:

(2) Where an independent expert appointed under clause 37 determines that Envestra was not entitled to the credit support provided by the Network user, in whole or in part, Envestra must:

(a) reimburse the Network User for any costs incurred to procure the credit support (including the costs of funding any cash collateral provided to the issuer of credit support), in excess of the costs that the Network User would have incurred if the correct amount had been requested; and

(b) pay the Network User interest at the default interest rate on the amount of those excess costs.

Delete sub-clause 27.6 and replace it as follows:

Envestra may only apply or draw on the credit support if:

(a) Envestra has given not less than 3 business days’ notice to a retailer that it intends to apply or draw on the credit support in respect of an amount due and payable by the Network user to Envestra, and that amount remains outstanding; and

(b) there is no unresolved dispute under clauses 23 or 37 of this Agreement about the Network User's liability to pay that amount.

Revision 12.21: Amend sub-clause 28.2 as follows:

At the beginning of sub-clause 28.2 insert "Subject to clauses 23 and 37".

At the end of sub-clause 28.2(a) insert the following:

and the Network User fails to pay the amount due within 14 days after it receives a written notice specifying the amount that is due.

Revision 12.22: Amend sub-clause 29.4 as follows:

Delete the definition and replace it with:

A party must use reasonable endeavours to mitigate every claim it might have against the other party.

Revision 12.23: Amend sub-clause 29.6 and 29.7 as follows:

Delete "Claim" and replace it with "claim".

Revision 12.24: Amend clause 29 as follows:

Delete point (b) from sub-clause 29.1

Insert a new sub -clause 29.11 as follows:

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

Revision 12.25: Amend sub-clause 32.2 as follows:

Insert "use its best endeavours to" between "will" and "cause".

In the final line, insert "reasonably" between "Envestra" and "requires".

Revision 12.26: Delete sub-clause 33.1.

Revision 12.27: Amend clause 34 as follows:

Amend sub-clause 34.1 by deleting "The Network User" and replacing it with "Each Party".

Amend sub-clause 34.1 by deleting "approved by Envestra (which approval shall not be unreasonably withheld)".

Delete sub-clause 34.2 and replace it as follows:

If either party requires, the other party must ensure that any insurance it obtains or maintains under the Agreement notes the interest of the other party.

Delete sub-clause 34.3 and replace it as follows:

Whenever reasonably requested by the other party, a party must give the other party a certificate of currency for the insurance.

Delete sub-clause 34.4 and replace it as follows:

A party must promptly notify the other party whenever an event occurs in relation to the Network which gives rise to, or might give rise to, a claim under any insurance which the party holds under this Agreement.

Delete sub-clause 34.5 and replace it as follows:

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

Delete sub-clause 34.6.

Delete sub-clause 34.7 and replace it as follows:

A party must promptly notify the other party if it fails to obtain or maintain any insurance required under the Agreement. In this case, the other party may obtain and maintain that insurance on behalf of that party at the costs of that party.

Revision 12.28: Amend clause 35 as follows:

Delete "or any Shared Customer" from sub-clause 35.1.

Amend sub-clause 35.5 by inserting ",after exercising its reasonable endeavours to do so," between "obtain" and "safe".

Amend sub-clause 35.7 by inserting "exercise its reasonable endeavours to" between "or" and "cause".

Revision 12.29: Amend clause 39 as Follows:

Delete sub-clause 39.1.

Amend the remaining sub-clauses so that they apply equally to either party.

Revision 12.30: Amend sub-clause 41.3 as follows:

Delete sub-clause 41.3 and replace it with the following:

Where any consent or approval is required from Envestra under the Agreement, Envestra must not unreasonably withhold that consent or approval. Envestra may make any consent or approval subject to whatever conditions are reasonably necessary.

Revision 12.31: Amend clause 7 of the proposed access arrangement to include the following:

There are no applicable capacity trading requirements for the purposes of rule 48(1)(f) or 105 (1) of the NGR.

Revision 12.32: Add a term into its access arrangement proposal as follows:

Any change to a Receipt or Delivery Point on the Network will require the consent of the Service Provider. Such consent will not be withheld unless there are reasonable commercial or technical grounds for withholding consent.

As the only Receipt Points on the Network are custody transfer points between the Network and other networks, it is unlikely that the Service Provider would consent to a request to change a Receipt Point.

Requests for changes to any Delivery Point will be considered on case-by-case basis, subject to technical and commercial feasibility, and will be offered as a Negotiated Service.

Revision 12.33: Amend clause 9.1 to read as follows:

9.1 Envestra will submit revisions to this Access Arrangement to the AER on or before 1 January 2017.

1. NGR, r. 48(1)(a). [↑](#footnote-ref-1)
2. NGR, r. 48(1)(b). [↑](#footnote-ref-2)
3. Envestra, Access arrangement proposal, 30 March 2012, p. 5. [↑](#footnote-ref-3)
4. NGR, r. 48(1)(c), NGR, r. 101(1). [↑](#footnote-ref-4)
5. NGR, r. 101(2). [↑](#footnote-ref-5)
6. NGL, s. 2. [↑](#footnote-ref-6)
7. NGR, r. 100(a). [↑](#footnote-ref-7)
8. Such as queuing requirements, extension and expansion requirements, and capacity trading requirements. [↑](#footnote-ref-8)
9. NGR, r. 48(1)(a). [↑](#footnote-ref-9)
10. On 5 August 2011 the AER submitted a rule change proposal to amend the definition of a reference service and rebateable service in the NGR.  The AEMC released its draft rule determination in March 2012.  On 27 July 2012, the AEMC extended the time for the making of its final rule determination to 1 November 2012. [↑](#footnote-ref-10)
11. On 13 September 2012, the AEMC released a Consultation Paper on the rule change which specifically invites comments on “the operation and application of the final rule to access arrangement reviews already in progress” and the need for “transitional arrangements if the final rule was to apply to access arrangements that are currently being assessed by the AER” (pg 26). See: <http://www.aemc.gov.au/gas/rule-changes/open/reference-service-and-rebateable-service-definitions.html> [↑](#footnote-ref-11)
12. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A; Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 3. [↑](#footnote-ref-12)
13. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A. [↑](#footnote-ref-13)
14. Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 3. [↑](#footnote-ref-14)
15. Envestra, Access arrangement proposal, 30 March 2012, clause 2.4. [↑](#footnote-ref-15)
16. Envestra, Access arrangement proposal, 30 March 2012, clause 6.2. [↑](#footnote-ref-16)
17. NGR, rr. 48(1)(c) and. 101(2); NGL, s. 2. [↑](#footnote-ref-17)
18. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-18)
19. NGR, r. 77(2). [↑](#footnote-ref-19)
20. Envestra, Victorian Access arrangement information, March 2012, p. 141. [↑](#footnote-ref-20)
21. Envestra, Albury Access arrangement information, March 2012, p. 124. [↑](#footnote-ref-21)
22. Envestra, Victorian Access arrangement information, March 2012, p. 139. [↑](#footnote-ref-22)
23. Envestra, Albury Access arrangement information, March 2012, p. 123. [↑](#footnote-ref-23)
24. Envestra, Victoria access arrangement information, March 2012, p. 140; Envestra, Albury access arrangement information, March 2012, p. 124. [↑](#footnote-ref-24)
25. Envestra, Victoria access arrangement information, March 2012, p. 141; Envestra, Albury access arrangement information, March 2012, p. 125. [↑](#footnote-ref-25)
26. Envestra, Victoria access arrangement information, March 2012, p. 140; Envestra, Albury access arrangement information, March 2012, p. 124. [↑](#footnote-ref-26)
27. Envestra, Victoria access arrangement information, March 2012, p. 144. [↑](#footnote-ref-27)
28. Envestra, Albury access arrangement information, March 2012, p. 128. [↑](#footnote-ref-28)
29. Envestra, Victoria access arrangement information, March 2012, p. 144; Envestra, Albury access arrangement information, March 2012, p. 128. [↑](#footnote-ref-29)
30. Envestra, Victoria access arrangement information, March 2012, p. 144; Envestra, Albury access arrangement information, March 2012, p. 128. [↑](#footnote-ref-30)
31. NGR, Schedule 1, clause 1(1)(a). [↑](#footnote-ref-31)
32. NGR, Schedule 1, clause 3(2)(a). [↑](#footnote-ref-32)
33. AER, Final decision: Jemena access arrangement, June 2010; AER, Final decision: Country Energy Gas access arrangement, March 2010; AER, Final decision: ActewAGL access arrangement, March 2010; AER, Final decision: Envestra arrangement proposal Qld, June 2011; AER, Final decision: Envestra Ltd access arrangement proposal for the SA gas network 2011–2016, June 2011 (AER, Final decision: Envestra access arrangement SA, June 2011); AER, Final decision: APT Allgas access arrangement, June 2011; AER, Final decision: NT Gas access arrangement, July 2011. AER, Final decision: Roma to Brisbane Pipeline 2012–13 to 2016–17, April 2012. [↑](#footnote-ref-33)
34. NGR, r. 77(2). [↑](#footnote-ref-34)
35. NGR, r. 78. [↑](#footnote-ref-35)
36. The AER identified these discrepancies with Envestra, who provided a revised RFM to reconcile the values. Envestra, Response to AER information request 10 regarding the reconciliation of 2007-2011 proposal capex with Envestra’s audited regulatory accounts, 19 June 2012. [↑](#footnote-ref-36)
37. NGR, r. 77(2)(a). [↑](#footnote-ref-37)
38. NGR r. 77(2)(b). [↑](#footnote-ref-38)
39. The AER's detailed analysis of conforming capex by project and driver is in attachment X.X [↑](#footnote-ref-39)
40. Essential Services Commission, Gas access arrangement review 2008–12, Final decision, March 2008, pp. 431–432. [↑](#footnote-ref-40)
41. NGR Schedule 1, Clause 5(1)(a). [↑](#footnote-ref-41)
42. Essential Services Commission, Gas access arrangement review 2008–12, Final decision, March 2008, pp. 431–432. [↑](#footnote-ref-42)
43. Essential Services Commission, Gas access arrangement review 2008–12, Final decision, March 2008, pp. 431–432. [↑](#footnote-ref-43)
44. NGR, Schedule 1, clause 5(1)(a). [↑](#footnote-ref-44)
45. Envestra, Response to AER information request 10 the reconciliation of 2007-2011 proposal capex with Envestra’s audited regulatory accounts, 20 June 2012. [↑](#footnote-ref-45)
46. Envestra, Victorian distribution system access arrangement part B—Reference tariff policy and reference tariffs, June 2008, p. 12; Envestra, Albury distribution system access arrangement part B—Reference tariff policy and reference tariffs, June 2008, p. 12; [↑](#footnote-ref-46)
47. NGR, Schedule 1, clause 5(b). [↑](#footnote-ref-47)
48. AER, Final decision, Victorian electricity distribution network service providers Distribution determination   
    2011–2015, October 2010, p. 455. [↑](#footnote-ref-48)
49. Essential Services Commission, Review of gas access arrangements, Final decision, October 2002,   
    pp. 425–426. [↑](#footnote-ref-49)
50. Essential Services Commission, Review of gas access arrangements, Final decision, October 2002,   
    pp. 425–426. [↑](#footnote-ref-50)
51. For example, AER, Final decision: Jemena access arrangement proposal, June 2010, p. 92; AER, Final decision: APT Allgas access arrangement, June 2011, p. 13; AER, Final decision: Envestra access arrangement Qld, June 2011, p. 25; AER, Final decision: Envestra access arrangement SA, June 2011, p. 28. [↑](#footnote-ref-51)
52. NGR, r. 77(2)(d). [↑](#footnote-ref-52)
53. ESC, Gas access arrangement review 2008–12, Final decision, March 2008, p. 439. [↑](#footnote-ref-53)
54. NGR, r. 77(2)(d). [↑](#footnote-ref-54)
55. The AER's detailed assessment of the proposed forecast capex allowances is set out in attachment 3. [↑](#footnote-ref-55)
56. The AER's detailed assessment of the proposed forecast depreciation allowances is set out in attachment 5. [↑](#footnote-ref-56)
57. NGR, r. 77(2). [↑](#footnote-ref-57)
58. Envestra, Access arrangement information, March 2012, pp. 166–167. [↑](#footnote-ref-58)
59. NGL, s. 23. [↑](#footnote-ref-59)
60. NGL, s. 24. [↑](#footnote-ref-60)
61. AER, Final decision, Envestra Ltd access arrangement proposal for the Qld gas network, 1 July 2011–30 June 2016, June 2011, p. 25; AER, Final decision, Envestra Ltd access arrangement proposal for the SA gas network, 1 July 2011–30 June 2016, June 2011, p. 28. [↑](#footnote-ref-61)
62. AER, Final access arrangement guideline, March 2009, pp. 65–66. [↑](#footnote-ref-62)
63. NGL, s. 24(3)(a). [↑](#footnote-ref-63)
64. Throughout this attachment, the AER refers to Envestra Victoria and Envestra Albury separately and also collectively as ‘Envestra’ [↑](#footnote-ref-64)
65. Envestra, Victoria Access Arrangement Information, March 2012, p.125 [↑](#footnote-ref-65)
66. Envestra, Victoria Access Arrangement Information, March 2012, p.130 [↑](#footnote-ref-66)
67. Envestra, Albury Access Arrangement Information, March 2012, p.114 [↑](#footnote-ref-67)
68. Envestra, Albury Access Arrangement Information, March 2012, p.116 [↑](#footnote-ref-68)
69. NGR, r. 78. [↑](#footnote-ref-69)
70. NGR, r. 74(2). [↑](#footnote-ref-70)
71. NGR, r. 40(2), r. 79(6). [↑](#footnote-ref-71)
72. For instance, r. 74 of the NGR requires estimates and forecasts to be made on a reasonable basis, amongst

    other things. [↑](#footnote-ref-72)
73. NGL, s. 28(1). [↑](#footnote-ref-73)
74. NGR, r. 77(2)(a) [↑](#footnote-ref-74)
75. NGR, r.79(1) [↑](#footnote-ref-75)
76. NGR, r.77(2)(b) [↑](#footnote-ref-76)
77. NGR, r. 79 and r.77(2)(b) [↑](#footnote-ref-77)
78. Schedule 1, clause 5. [↑](#footnote-ref-78)
79. NGR, r. 79(1). [↑](#footnote-ref-79)
80. Envestra, Access Arrangement Information: Attachments 7.2, 7.3, 7.4, 30 March 2012. [↑](#footnote-ref-80)
81. Envestra, Access Arrangement Information: Appendix 6.1, 30 March 2012. [↑](#footnote-ref-81)
82. Envestra, Access Arrangement Information: Attachment 7.6, 30 March 2012. [↑](#footnote-ref-82)
83. Envestra, Access Arrangement Information: Attachment 7.5, 30 March 2012. [↑](#footnote-ref-83)
84. Submissions were received from the Energy Users Coalition of Victoria, Origin Energy, AGL and Australian Power and Gas. [↑](#footnote-ref-84)
85. AER, Final decision for the Victorian electricity distribution network service providers, Distribution determination 2011–2015, October 2010, pp.150–151. [↑](#footnote-ref-85)
86. Envestra Victoria, Access Arrangement Information, 30 March 2012, p. 42; Envestra Albury, Access Arrangement Information, 30 March 2012 p. 39. [↑](#footnote-ref-86)
87. EUCV, Victorian Gas Distribution Revenue Reset, applications from Envestra, Multinet and SP AusNet, A response by Energy Users Coalition of Victoria, Response to Envestra's Access Arrangement Proposal, June 2012, p. 17. (EUCV, Response to Envestra's Access Arrangement Proposal, June 2012). [↑](#footnote-ref-87)
88. EUCV, Response to SP AusNet's Access Arrangement Proposal, June 2012, p. 21. [↑](#footnote-ref-88)
89. Excluding AER adjustment for material and labour escalation and the network management fee [↑](#footnote-ref-89)
90. Excluding AER adjustment for material and labour escalation and the network management fee. [↑](#footnote-ref-90)
91. EUCV, Response to Envestra's Access Arrangement Proposal, June 2012, p. 20. [↑](#footnote-ref-91)
92. EUCV, Response to Envestra's Access Arrangement Proposal, June 2012, p. 20. [↑](#footnote-ref-92)
93. EUCV, Response to Envestra's Access Arrangement Proposal, June 2012, p. 20. [↑](#footnote-ref-93)
94. Envestra, Access Arrangement Information, 30 March 2012, p. 122. [↑](#footnote-ref-94)
95. ESC, Review of Gas Access Arrangements Final Decision, October 2002, p. 117. [↑](#footnote-ref-95)
96. ESC, Review of Gas Access Arrangements Final Decision, October 2002, p. 117. [↑](#footnote-ref-96)
97. The ESC approved an annual average volume of 114 km (or a total of 570 km). [↑](#footnote-ref-97)
98. Envestra, Access Arrangement Information, 30 March 2012, p. 121. [↑](#footnote-ref-98)
99. Envestra, Access Arrangement Information, 30 March 2012, p. 121. [↑](#footnote-ref-99)
100. "Facility" means, amongst other things, a pipeline: s 3(1) of the Gas Safety Act 1997 (Vic). [↑](#footnote-ref-100)
101. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, p. 7. [↑](#footnote-ref-101)
102. Gas Safety Act 1997 (Vic), s. 3(1). [↑](#footnote-ref-102)
103. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, p. 7, Attached letter to ESV/Attachment A, p. 3. [↑](#footnote-ref-103)
104. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, p. 7, Attached letter to ESV/Attachment A, p. 5. [↑](#footnote-ref-104)
105. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, p. 7. [↑](#footnote-ref-105)
106. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, p.7, Attached letter to ESV/Attachment A, p. 4. [↑](#footnote-ref-106)
107. Envestra, Access Arrangement Information, 30 March 2012, p. 21. [↑](#footnote-ref-107)
108. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, p. 7. [↑](#footnote-ref-108)
109. Gas Safety Act 1997 (Vic), s. 45. [↑](#footnote-ref-109)
110. For Envestra the total approved volume is 265km, which is the average of the annual volumes of main replacement delivered over 2008-11, multiplied by 5 years. [↑](#footnote-ref-110)
111. Envestra, Access Arrangement Information: Attachment 7.5B Unit rates Victoria MRP.xlsx, 30 March 2012. [↑](#footnote-ref-111)
112. Envestra, Response to information request 4 of 18 May 2012, received 30 May 2012, preamble to question 31, p. 11. [↑](#footnote-ref-112)
113. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, Misc Capex pp. 11–12. [↑](#footnote-ref-113)
114. Both on-panel and off-panel tenderers were variously omitted from the simple average calculation. [↑](#footnote-ref-114)
115. Envestra, Vic GAAR - Envestra - Follow up to request for tender documents’, received 31 July 2012. [↑](#footnote-ref-115)
116. Envestra, Response to information request 34 of 13 July 2012, received 2 August 2012, p. 1. [↑](#footnote-ref-116)
117. A number of tenderers responded with rates for particular suburbs. The lowest unit rate for each suburb was selected from all tenders submitted. The overall unit rate for the medium category was calculated by weighting each suburb's selected unit rate by the respective volume of mains replacement in that suburb. [↑](#footnote-ref-117)
118. Envestra, Response (second part) to information request 4 of 18 May 2012, received 19 June 2012, Q.35 The AER also sought data to show the volumes of works by suburb and calendar year (AER, Information request 17 of 22 June, Q.1), but as at 21 September Envestra had not supplied this level of detail. [↑](#footnote-ref-118)
119. Envestra, Response to information request 4 of 18 May 2012, received 19 June 2012, question 35, p.35. [↑](#footnote-ref-119)
120. Envestra, Response to Information Request 17 of 22 June 2012, received 22 July 2012, p. 4. [↑](#footnote-ref-120)
121. Envestra, Access Arrangement Information: Attachment 7.2 Asset Management Plan, 30 March 2012, p. 70. [↑](#footnote-ref-121)
122. Envestra, Access Arrangement Information, 30 March 2012, p. 103. [↑](#footnote-ref-122)
123. Envestra, Access Arrangement Information: Attachment 6.1 Business Case V98 Reactive Replacement (opex), 30 March 2012, pp.1–2. [↑](#footnote-ref-123)
124. Envestra, Access Arrangement Information: Attachment 6.1 Business Case V98 Reactive Replacement (opex), 30 March 2012, p. 2. [↑](#footnote-ref-124)
125. Envestra, Response to Information Request 17 of 22 June 2012, received 22 July 2012, p. 3. [↑](#footnote-ref-125)
126. Envestra, Response to Information Request 17 of 22 June 2012, received 22 July 2012, p. 3. [↑](#footnote-ref-126)
127. Envestra, Response to Information Request 18 of 25 June 2012, received 1 July 2012, p. 5. [↑](#footnote-ref-127)
128. Envestra, Albury Access Arrangement Information, March 2012, p.120. [↑](#footnote-ref-128)
129. EUCV, Response to Envestra's Access Arrangement Proposal, June 2012, pp. 19–20. [↑](#footnote-ref-129)
130. Origin, Submission to Envestra's access arrangement proposal, June 2012, p. 2. [↑](#footnote-ref-130)
131. Envestra, Access Arrangement Information: Attachment 13.1 Core Energy Demand Forecast Report, 30 March 2012, p. 6. [↑](#footnote-ref-131)
132. Envestra, Email "FW: Vic GAAR - Envestra (Vic) - AER information request 25 & 26 - 6 July 2012 Envestra Response 25 July 2012", received 25 July 2012. [↑](#footnote-ref-132)
133. Envestra, Email "FW: Vic GAAR - Envestra (Vic) - AER information request 25 & 26 - 6 July 2012 Envestra Response 25 July 2012", received 25 July 2012, Vic Gains and Losses 2008–11 - Follow Up to AER request.xlsx [↑](#footnote-ref-133)
134. Envestra, Email Follow up to phone meeting on 18 June 2012, received 26 June 2012. [↑](#footnote-ref-134)
135. Envestra, Email Follow up to phone meeting on 18 June 2012, received 26 June 2012. [↑](#footnote-ref-135)
136. AER, Information Request 4 of 18 May 2012, received 30 May 2012; Information Request 8, Question 24 and 25 sent 8 June 2012, Information Request 13, Question 1, sent 15 June 12, Information Request 31, Question1 and Question 2, sent 11 July 2012, Information Request 37, Questions 1–3, sent 19 July 2012, Email " RE: Vic GAAR - Envestra - Updated timeline for draft decision" sent 15 August 2012, Envestra, Response to information request 31 of 11 July 2012, received 26 July 2012, Question 2, p.2 [↑](#footnote-ref-136)
137. AER, Information Request 4, Question 14, sent 18 May 12, Information Request 8, Question 24 and 25 sent 8 June 2012, Information Request 13, Question 1, sent 15 June 2012, Information Request 31, Question 1 and Question 2, sent 11 July 2012, Information Request 37, Questions 1-3, sent 19 July 2012, Email " RE: Vic GAAR - Envestra - Updated timeline for draft decision" sent 15 August 2012. [↑](#footnote-ref-137)
138. AER, Email " RE: Vic GAAR - Envestra - Updated timeline for draft decision" sent 15 August 2012. [↑](#footnote-ref-138)
139. Envestra, Email " RE: Vic GAAR - Envestra - Updated timeline for draft decision", received 21 August 2012, 120821-Outstanding Responses.doc, pp.2-3. [↑](#footnote-ref-139)
140. Envestra, Access Arrangement Information: Attachment 7.1 Capital Expenditure - Victoria Unit Rates,   
     30 March 2012, p. 10. [↑](#footnote-ref-140)
141. Envestra, Access Arrangement Information: Attachment 13.1 Core Energy Demand Forecast Report, March 2012, p. 6. [↑](#footnote-ref-141)
142. Envestra, Follow up to Response to information request 25 and 26 of 6 July, received 25 July 2012, Vic Gains and Losses 2008-2011 - Follow Up to AER request.xlsx. [↑](#footnote-ref-142)
143. AER, Information Request 4 of 18 May 2012, Question 14; Information Request 8, Question 24 and 25 sent 8 June 2012, Information Request 13, Question 1, sent 15 June 2012, Information Request 31, Question 1 and Question 2, sent 11 July 2012, Information Request 37, Questions 1-3, sent 19 July 2012, Email " RE: Vic GAAR - Envestra - Updated timeline for draft decision" sent 15 August 2012 [↑](#footnote-ref-143)
144. AER, Email " RE: Vic GAAR - Envestra - Updated timeline for draft decision" sent 15 August 2012 [↑](#footnote-ref-144)
145. ESC, Gas Distribution System Code (Version 9.0 effective from 1 January 2009), 12 December 2008. [↑](#footnote-ref-145)
146. Groups of similar meters installed in the same year. [↑](#footnote-ref-146)
147. Services Australia/Services New Zealand, Gas meters—In service compliance testing AS/NZS 4944:2006, May 2006. [↑](#footnote-ref-147)
148. Envestra, Response to Information Request 4 of 18 May 2012, received 8 June 2012, p.15. [↑](#footnote-ref-148)
149. EUCV, Response to Envestra's Access Arrangement Proposal, June 2012, pp. 19–20. [↑](#footnote-ref-149)
150. Envestra Response to AER information request 8 – follow up – 26 June 2012 [↑](#footnote-ref-150)
151. Envestra, Response to Information Request 4 of 18 May 2012, received 8 June 2012 [↑](#footnote-ref-151)
152. Envestra, Access Arrangement Information: Attachment 7.6 Forecast capex model, 30 March 2012, Unit rate escalations worksheet. [↑](#footnote-ref-152)
153. Envestra, Access Arrangement Information: Attachment 7.6 Forecast capex model, 30 March 2012, Unit rate escalations worksheet. [↑](#footnote-ref-153)
154. Envestra, Response to information request 4 of 18 May, received 30 June 2012. [↑](#footnote-ref-154)
155. Gas Technology Services, Gas Meter In-Service Compliance Procedure for APA,4 November 2011, p.6. [↑](#footnote-ref-155)
156. Envestra, Response to information request 4 of 18 May 2012, received 8 June 2012, Q18 & 21 Historical and Forecast Meter Removal.xlsx [↑](#footnote-ref-156)
157. Services Australia/Services New Zealand, Gas meters—In service compliance testing AS/NZS 4944:2006, May 2006, p. 7 [↑](#footnote-ref-157)
158. Envestra, Response to information request 4 of 18 May 2012, question 23, received 30 May 2012. [↑](#footnote-ref-158)
159. Gas Technology Services, Gas Meter In-Service Compliance Procedure for APA,,4 November 2011, p.4 [↑](#footnote-ref-159)
160. Envestra response to AER information request 4 of 18 May, recieved 8 June 2012. [↑](#footnote-ref-160)
161. AER, Information request 21 of 2 July 2012. [↑](#footnote-ref-161)
162. Envestra, Response to information request 21 of 2 July 2012, received 1 August 2012, p. 2. [↑](#footnote-ref-162)
163. AER, Information request 21 of 2 July 2012. [↑](#footnote-ref-163)
164. Envestra, Response to information request 21 of 2 July 2012, received 1 August 2012, p. 2. [↑](#footnote-ref-164)
165. Envestra, Access Arrangement Information: Attachment 7.6 Capex Forecast Model.xlsx, 30 March 2012, Unit rate escalations worksheet. [↑](#footnote-ref-165)
166. Envestra, Access Arrangement Information: Attachment 7.6 Capex Forecast Model.xlsx, 30 March 2012, Unit rate escalations worksheet. [↑](#footnote-ref-166)
167. Envestra, Access Arrangement Information: Attachment 7.2 Asset Management Plan, 30 March 2012, p. 92. [↑](#footnote-ref-167)
168. AER, information request 4 of 18 May 2012 and AER information request 21 of 2 July 2012, question 2. [↑](#footnote-ref-168)
169. AER, information request 4 of 18 May 2012 and AER information request 21 of, 2 July 2012, question 3. [↑](#footnote-ref-169)
170. Envestra, Response to information request 21 of 2 July 2012, received 1 August 2012, p. 3; PMC Historical FLE damaged upgrades.xlsx. [↑](#footnote-ref-170)
171. Envestra, Access Arrangement Information: Attachment 7.5A Unit Rates Victoria Spreadsheet.xls and Attachment 7.5A Unit Rates Albury Spreadsheet.xls. [↑](#footnote-ref-171)
172. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, p. 3. [↑](#footnote-ref-172)
173. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, p.1; hard-copy contract documents received from Envestra 13 July 2012. [↑](#footnote-ref-173)
174. Envestra, Access Arrangement Information, 30 March 2012, p. 123. [↑](#footnote-ref-174)
175. Envestra, Access Arrangement Information, March 2012, p. 124. [↑](#footnote-ref-175)
176. EUCV, Response to Envestra's Access Arrangement Proposal, June 2012, p. 20. [↑](#footnote-ref-176)
177. EUCV, Response to Envestra's Access Arrangement Proposal June 2012, p. 20. [↑](#footnote-ref-177)
178. Origin Energy, Submission to Envestra's access arrangement proposal, June 2012, p. 1. [↑](#footnote-ref-178)
179. Origin Energy, Submission to Envestra's access arrangement proposal, June 2012, p. 1. [↑](#footnote-ref-179)
180. Zincara, Review of Envestra's Capital Expenditure, 21 September 2012, pp.8-36. [↑](#footnote-ref-180)
181. The forecasts comply with NGR, r. 74 and the proposed capex is justifiable under NGR, r. 79(2)(iii). [↑](#footnote-ref-181)
182. The capex complies with NGR, r. 79(1)(a). [↑](#footnote-ref-182)
183. Zincara, Review of Envestra's Capital Expenditure, 21 September 2012, pp.20-21. [↑](#footnote-ref-183)
184. Victorian Department of Planning and Community Development , Victoria in Future 2012 data tables, Table 6, <http://www.dpcd.vic.gov.au/home/publications-and-research/urban-and-regional-research/census-2011/victoria-in-future-2012/vif-2012-data-tables> accessed 11/7/12. [↑](#footnote-ref-184)
185. Zincara, Review of Envestra's Capital Expenditure, 21 September 2012, pp.21-23. [↑](#footnote-ref-185)
186. Zincara, Review of Envestra's Capital Expenditure, 21 September 2012, pp.30-31. [↑](#footnote-ref-186)
187. Zincara, Review of Envestra's Capital Expenditure, 21 September 2012, pp.34-35. [↑](#footnote-ref-187)
188. This section excludes Envestra's proposed capex for the installation of remote terminal units (see section on SCADA). [↑](#footnote-ref-188)
189. Envestra, Access Arrangement Information,12 March 2012, p.125. AER has adjusted the amounts to reconcile with the underlying business cases. [↑](#footnote-ref-189)
190. Envestra, Access Arrangement Information,12 March 2012, p.125. [↑](#footnote-ref-190)
191. EUCV, Response to Envestra's Access Arrangement Proposal, June 2012, pp. 20–21. [↑](#footnote-ref-191)
192. Envestra, Victoria Access Arrangement Information, March 2012, p.130 [↑](#footnote-ref-192)
193. Envestra, Response to information request 8 of 8 June 2012, received 26 June 2012, p. 4. [↑](#footnote-ref-193)
194. 'Regional SCADA' (Envestra, Access Arrangement Information: Attachment 6.1 Business case VA02 SCADA in regional towns, 30 March 2012) and 'Interval Meter Data Management'; (Envestra, Access Arrangement Information: Attachment 6.1 Business case VA49 Interval Meter Data Management,   
     30 March 2012) are assessed as proposed IT capex. [↑](#footnote-ref-194)
195. 'Regional SCADA' (Envestra, Access Arrangement Information: Attachment 6.1 Business case VA02 SCADA in regional towns, 30 March 2012) and 'Interval Meter Data Management'; (Envestra, Access Arrangement Information: Attachment 6.1 Business case VA49 Interval Meter Data Management,   
     30 March 2012) are assessed as proposed IT capex. [↑](#footnote-ref-195)
196. Envestra, Access Arrangement Information: Attachment 7.2 Asset Management Plan, received 17 July 2012. [↑](#footnote-ref-196)
197. Envestra, Access Arrangement Information: Attachment 7.2 Asset Management Plan, received 17 July 2012, p. 63. [↑](#footnote-ref-197)
198. Envestra, Access Arrangement Information: Attachment 7.2 Asset Management Plan, received 17 July 2012, p. 63. [↑](#footnote-ref-198)
199. Envestra, Access Arrangement Information: Attachment 7.2 Asset Management Plan, 30 March 2012, p. 73. [↑](#footnote-ref-199)
200. Envestra, Access Arrangement Information: Attachment 7.2 Asset Management Plan, received 17 July 2012, p. 71. [↑](#footnote-ref-200)
201. Envestra, Access Arrangement Information: Attachment 7.2 Asset Management Plan, received 17 July 2012, p. 71. [↑](#footnote-ref-201)
202. 2009 Victorian Busfires Royal Commission, Final Report Recommendations, retrieved 31 July 2010,                      <http://www.royalcommission.vic.gov.au/Assets/VBRC-Final-Report-Recommendations.pdf>. [↑](#footnote-ref-202)
203. Envestra, Access Arrangement Information, 30 March 2012, p. 130. [↑](#footnote-ref-203)
204. Envestra, Access Arrangement Information, 30 March 2012, p. 130. [↑](#footnote-ref-204)
205. Envestra, Access Arrangement Information, 30 March 2012, p. 127. [↑](#footnote-ref-205)
206. Envestra, Access Arrangement Information, 30 March 2012, p. 127. [↑](#footnote-ref-206)
207. Envestra, Access Arrangement Information, 30 March 2012, p. 128. [↑](#footnote-ref-207)
208. Envestra, Access Arrangement Information, 30 March 2012, p. 104. [↑](#footnote-ref-208)
209. Envestra, Access Arrangement Information, 30 March 2012, p. 104. [↑](#footnote-ref-209)
210. Envestra, Access Arrangement Information, 30 March 2012, p. 104. [↑](#footnote-ref-210)
211. Envestra, Access Arrangement Information, 30 March 2012, p. 128. [↑](#footnote-ref-211)
212. Envestra, Access Arrangement Information, 30 March 2012, p. 128. [↑](#footnote-ref-212)
213. Envestra, Access Arrangement Information, 30 March 2012, p. 129. [↑](#footnote-ref-213)
214. Envestra, Access Arrangement Information, 30 March 2012, p. 130. [↑](#footnote-ref-214)
215. Envestra, Access Arrangement Information, 30 March 2012, p. 130. [↑](#footnote-ref-215)
216. Envestra, Access Arrangement Information: Attachment 6.1 Business case VA23 Technical Training Modules, 30 March 2012, p. 9. [↑](#footnote-ref-216)
217. Envestra, Response to information request 18 of 8 June 2012, received 26 June 2012 [↑](#footnote-ref-217)
218. Envestra, Access Arrangement Information, 30 March 2012, p. 132. [↑](#footnote-ref-218)
219. Envestra, Access Arrangement Information, 30 March 2012, p. 132. [↑](#footnote-ref-219)
220. Envestra, Access Arrangement Information, 30 March 2012, p. 118. [↑](#footnote-ref-220)
221. Envestra, Response to information request 32 of 12 July 2012, received 20 July 2012 [↑](#footnote-ref-221)
222. ACG, Estimation of Powerlink’s SEO transaction cost allowance–Memorandum, 5 February 2007 [↑](#footnote-ref-222)
223. AER, *Final decision, Australian Capital Territory distribution determination 2009–10 to 2013–14*, April 2009, appendix H; AER, *Final decision, New South Wales distribution determination 2009–10 to 2013–14*, April 2009, appendix N; AER, *Final decision, TransGrid transmission determination 2009–10 to 2013–14*, April 2009, appendix E; AER, *Final decision, Transend transmission determination 2009–10 to 2013–14*, April 2009, appendix E. [↑](#footnote-ref-223)
224. AER, *Final decision,* V*ictorian electricity distribution network service providers, Distribution determination 2011–2015*; AER, *Final Decision, Jemena Gas Networks, Access arrangement proposal for the NSW gas networks ,1 July 2010 – 30 June 2015*, June 2011. [↑](#footnote-ref-224)
225. AER, *Final decision Powerlink Transmission determination 2012–13 to 2016–17*, April 2012, p. 151-2. [↑](#footnote-ref-225)
226. ACG, Estimation of Powerlink’s SEO transaction cost allowance–Memorandum, 5 February 2007 [↑](#footnote-ref-226)
227. Final decision, TransGrid transmission determination 2009–10 to 2013–14, April 2009, pp. 233–244. [↑](#footnote-ref-227)
228. ACG, Debt and Equity Raising Transaction Costs, Final Report to the Australian Competition and

     Consumer Commission, December 2004, p xiii, 65. [↑](#footnote-ref-228)
229. Handley, *A note on the cost of raising debt and equity capital,* April 2009. [↑](#footnote-ref-229)
230. Envestra (Vic), Victorian access arrangement information, 30 March 2012, p. 142. Although the figure $2.6m was outlined, this was not the figure as calculated by Envestra’s PTRM. [↑](#footnote-ref-230)
231. Envestra (Albury), Victorian access arrangement information, 30 March 2012, p. 125. [↑](#footnote-ref-231)
232. In contrast, the AER's previous cash flow analysis calculated dividend assessments, cash flows and funding requirements in nominal dollar terms only. Based on these nominal values, the cash flow analysis determined annual dividend reinvestment plan and seasoned equity offering costs. The annual costs were converted into real dollar term (2011–12) estimates, and totalled to provide the equity raising cost allowance for the entire regulatory control period. For the refinements, see rows 44 to 53 of the 'Equity raising cost-capex' tab in the AER's final decision PTRM for Envestra. [↑](#footnote-ref-232)
233. AER, *Final decision Powerlink Transmission determination 2012–13 to 2016–17*, April 2012, p. 151-2. [↑](#footnote-ref-233)
234. Enverstra (Vic) PTRM ‘input’, cell G203. Enverstra (Albury) PTRM ‘input’, cell G202. [↑](#footnote-ref-234)
235. Envestra PTRM cell G45 to K45 discounts the equity raising costs by inflation to the power of 1, rather than inflation to the power of the appropriate number of years. [↑](#footnote-ref-235)
236. NGR, r. 87. [↑](#footnote-ref-236)
237. The AER's adoption of this rate is subject to the risk free rate and debt risk premium parameters being updated closer to the date of the final decision. [↑](#footnote-ref-237)
238. The AER agrees with Envestra's proposed paired bonds extrapolation method, including the selection criteria to choose the paired bonds. However, Envestra appears to have incorrectly applied the selection criteria in its proposal. Accordingly, the AER has corrected this error in applying Envestra's proposed paired bonds extrapolation method. [↑](#footnote-ref-238)
239. AER, Final decision: APT Petroleum Pipeline Pty Ltd, Access arrangement final decision, Roma to Brisbane Pipeline 2012–13 to 2016–17, August 2012, p. (AER, Final decision: APTPPL access arrangement, August 2012). [↑](#footnote-ref-239)
240. AER, Final distribution determination, Aurora Energy Pty Ltd 2012–13 to 2016–17, April 2012, p. 29, (AER, Final decision: Aurora distribution determination, April 2012) [↑](#footnote-ref-240)
241. Australian Competition Tribunal, *Application by WA Gas Network Pty Ltd (No 3) [2012] ACompT*, 8 June 2012, paragraphs 61-66; see also Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012, paragraphs 80–84, 100–103. [↑](#footnote-ref-241)
242. AER, Final decision: APT Petroleum Pipeline Pty Ltd, Access arrangement final decision, Roma to Brisbane Pipeline 2012–13 to 2016–17, August 2012, p. 58-59 (AER, Final decision: APTPPL access arrangement, August 2012). [↑](#footnote-ref-242)
243. NGR, r. 40. [↑](#footnote-ref-243)
244. NGR r. 99(3). [↑](#footnote-ref-244)
245. NGR r. 64(2). [↑](#footnote-ref-245)
246. AER, Final decision: Electricity transmission and distribution network service providers: Review of the weighted average cost of capital (WACC) parameters, 1 May 2009. (AER, Final Decision: WACC Review, May 2009). [↑](#footnote-ref-246)
247. NGL s. 28(1). [↑](#footnote-ref-247)
248. NGL, s. 23. [↑](#footnote-ref-248)
249. NGL s. 28(2)(a)(i) [↑](#footnote-ref-249)
250. NGL, s. 24. [↑](#footnote-ref-250)
251. Envestra, Access arrangement information, March 2012, p. 147. [↑](#footnote-ref-251)
252. Envestra, Access arrangement information, March 2012, p. 147. [↑](#footnote-ref-252)
253. Envestra, Access arrangement information, March 2012, p. 147. [↑](#footnote-ref-253)
254. Envestra, Access arrangement information, March 2012, p. 159. [↑](#footnote-ref-254)
255. Envestra, Access arrangement information, March 2012, p. 148. [↑](#footnote-ref-255)
256. Australian Competition Tribunal, *Application by WA Gas Network Pty Ltd (No 3) [2012] ACompT*, 8 June 2012, paragraph 64. [↑](#footnote-ref-256)
257. NGR, rule 87(1)); Section 1.3.1 below contains evidence for why this approach is consistent with the rules. [↑](#footnote-ref-257)
258. See, for example, Officer B. and Bishop S., *Market risk premium, a review paper*, August 2008, pp. 3–4. [↑](#footnote-ref-258)
259. See, for example, Mehra R. and Prescott E.C., "The equity premium, a puzzle", Journal of Monetary Economics, 15, 1985, pp. 145–61; Damodoran A., e*quity* r*isk* p*remiums (ERP),* d*eterminants,* e*stimation and* i*mplications*, September 2008, p. 1; Doran J.S., Ronn E.I. and Goldberg R.S., *A simple model for time-varying expected returns on the S&P 500 Index*, August 2005, pp. 2–3. [↑](#footnote-ref-259)
260. Australian Competition Tribunal, *Application by Envestra Ltd (No 2) [2012] ACompT 4*, 11 January 2012, paragraph 146. [↑](#footnote-ref-260)
261. Envestra, Albury access arrangement information, 30 March 2012, pp. 140-141; Envestra, Victoria access arrangement information, 30 March 2012, pp. 156-157; [↑](#footnote-ref-261)
262. Michael McKenzie and Graham Partington, Report to the AER, Estimation of the equity beta (conceptual and econometric issues) for a gas regulatory process in 2012, 3 April 2012. [↑](#footnote-ref-262)
263. AER, Final decision: APTPPL access arrangement, August 2012. . [↑](#footnote-ref-263)
264. AER, Draft decision: Powerlink; Transmission determination, November 2011, pp. 225–229. [↑](#footnote-ref-264)
265. More specifically, the AER proposed to set the DRP as the average of nine bonds with characteristics that were similar to the benchmark (7–13 years maturity, BBB/BBB+/A- credit rating, fixed/floating, not callable or subordinated, Australian issuance). AER, Draft decision: Aurora distribution determination, November 2011, pp. 216–219, 238–253. [↑](#footnote-ref-265)
266. Australian Competition Tribunal, Application by Envestra Limited (No 2) [2012] ACompT 3, 11 January 2012; see also Australian Competition Tribunal, Application by APT Allgas Energy Ltd [2012] ACompT 5, 11 January 2012. [↑](#footnote-ref-266)
267. Australian Competition Tribunal, Application by Envestra Limited (No 2) [2012] ACompT 3, 11 January 2012, paragraphs 95, 118, 120–121; see also Australian Competition Tribunal, Application by APT Allgas Energy Ltd [2012] ACompT 5, 11 January 2012. [↑](#footnote-ref-267)
268. Specifically, for the West Australian gas distribution network owned by WA Gas Networks Pty Ltd (now known as ATCO Gas Australia), and for the Dampier to Bunbury Natural Gas Pipeline owned by DBNGP (WA) Transmission Pty Ltd. See Australian Competition Tribunal, Application by WA Gas Networks Pty Ltd (No 3) [2012] ACompT 12, 8 June 2012; and Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012. [↑](#footnote-ref-268)
269. Though the AER and ERA operate under different legislative instruments, the sections relevant to the determination of the rate of return are identical. Australian Competition Tribunal, Application by WA Gas Networks Pty Ltd (No 3) [2012] ACompT 12, 8 June 2012, paragraphs 167, 180; and Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012, paragraphs 280–282, 287. [↑](#footnote-ref-269)
270. Specifically, all bonds (sourced from Bloomberg) were from Australian companies, denominated in Australian dollars and issued in Australia. Further, bonds could be either fixed or floating and either bullet, callable or putable. Different scenarios used other slightly different criteria, such as a minimum term (two or five years), and a range of credit ratings (BBB-/BBB/BBB+ or BBB/BBB+). [↑](#footnote-ref-270)
271. Australian Competition Tribunal, Application by WA Gas Networks Pty Ltd (No 3) [2012] ACompT 12, 8 June 2012, paragraphs 176, 180, 187; Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012, paragraphs 290, 310–313. [↑](#footnote-ref-271)
272. More specifically, the Tribunal endorsed the use of the ERA’s ‘scenario 2’, which encompassed a minimum credit rating of BBB and a minimum term of two years. It also suggested that it would be appropriate to apportion weight by considering both term to maturity and issuance amount for the relevant bonds. [↑](#footnote-ref-272)
273. ERA, Revised decision, Access arrangement revisions for the Mid-West and South-West Gas Distribution System, 25 June 2012, pp. 5–12. [↑](#footnote-ref-273)
274. Based on Envestra's indicative averaging period, this ‘bond-yield approach’ estimate incorporates 60 bonds with an average term to maturity of 5.94 years. [↑](#footnote-ref-274)
275. This estimate reflects the paired bonds extrapolation sample proposed by Envestra. [↑](#footnote-ref-275)
276. Australian Competition Tribunal, Application by Envestra Limited (No 2) [2012] ACompT 3, 11 January 2012, paragraphs 95, 118, 120–121; see also Australian Competition Tribunal, Application by APT Allgas Energy Ltd [2012] ACompT 5, 11 January 2012. [↑](#footnote-ref-276)
277. Envestra, Access arrangement submission: Part A, 30 March 2012. [↑](#footnote-ref-277)
278. This estimate reflects the paired bonds sample proposed by Envestra. [↑](#footnote-ref-278)
279. Envestra, Access arrangement information, 30 March 2012; APA GasNet, Access arrangement submission, 31 March 2012; Envestra, Access arrangement information, 30 March 2012. [↑](#footnote-ref-279)
280. BHP Billiton, Submission to the AER: APA GasNet access arrangement proposal, 29 June 2012, p. 17. [↑](#footnote-ref-280)
281. EUCV, Submission to the AER: APA GasNet access arrangement proposal,18 June 2012, p. 50. [↑](#footnote-ref-281)
282. Though the AER and ERA operate under different legislative instruments, the sections relevant to the determination of the rate of return are identical. Australian Competition Tribunal, Application by WA Gas Networks Pty Ltd (No 3) [2012] ACompT 12, 8 June 2012, paragraphs 167, 180; and Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012, paragraphs 280–282, 287. [↑](#footnote-ref-282)
283. Specifically, all bonds (sourced from Bloomberg) were from Australian companies, denominated in Australian dollars and issued in Australia. Further, bonds could be either fixed or floating and either bullet, callable or putable. Different scenarios used other slightly different criteria, such as a minimum term (two or five years), and a range of credit ratings (BBB-/BBB/BBB+ or BBB/BBB+). [↑](#footnote-ref-283)
284. Australian Competition Tribunal, Application by WA Gas Networks Pty Ltd (No 3) [2012] ACompT 12, 8 June 2012, paragraphs 176, 180, 187; Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012, paragraphs 290, 310–313. [↑](#footnote-ref-284)
285. More specifically, the Tribunal endorsed the use of the ERA’s ‘scenario 2’, which encompassed a minimum credit rating of BBB and a minimum term of two years. It also suggested that it would be appropriate to apportion weight by considering both term to maturity and issuance amount for the relevant bonds. [↑](#footnote-ref-285)
286. ERA, Revised decision, Access arrangement revisions for the Mid-West and South-West Gas Distribution System, 25 June 2012, pp. 5–12. [↑](#footnote-ref-286)
287. Based on Envestra's indicative averaging period, this ‘bond-yield approach’ estimate incorporates 60 bonds with an average term to maturity of 5.94 years. [↑](#footnote-ref-287)
288. This estimate reflects an adjustment to Envestra's proposed extrapolation approach. This adjustment is discussed in detail in attachment 4 of this draft decision. [↑](#footnote-ref-288)
289. AER, WACC review final decision, May 2009, p. 335. [↑](#footnote-ref-289)
290. Envestra, Victoria access arrangement information, 30 March 2012, p. 158. Envestra, Albury access arrangement information, 30 March 2012, p. 141-2, [↑](#footnote-ref-290)
291. Envestra, Victorian access arrangement information, 30 March 2012, 158-9. Envestra, Albury access arrangement information, 30 March 2012, p. 142-4. [↑](#footnote-ref-291)
292. Envestra, Access arrangement information, March 2012, p.162 [↑](#footnote-ref-292)
293. Envestra, Access arrangement information, March 2012, pp. 155-156. [↑](#footnote-ref-293)
294. 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). . [↑](#footnote-ref-294)
295. Reserve Bank of Australia, Letter to the ACCC: The Commonwealth Government Securities Market, 16 July 2012, (RBA, Letter regarding the CGS market, July 2012).. [↑](#footnote-ref-295)
296. Federal Court of Australia, ActewAGL Distribution v The Australian Energy Regulator [2011] FCA 639, 8 June 2011, paragraph 148. [↑](#footnote-ref-296)
297. M. McKenzie, and G. Partington, Report to the AER: Supplementary report on the equity market risk premium, 22 February 2012, pp. 11–-12, (McKenzie and Partington, Supplementary report on the MRP, February 2012); M. Lally, The risk free rate and the present value principle, 22 August 2012, p. 3 (Lally, Risk free rate and present value, August 2012). [↑](#footnote-ref-297)
298. Australian Competition Tribunal, Telstra Corporation Limited ABN 33 051 775 556 [2010] ACompT 1, 10 May 2010, paragraph 417. [↑](#footnote-ref-298)
299. Standard and Poor's, viewed 17 August 2012, [www.standardandpoors.com/prot/ratings/entity-ratings/en/au/?entityID=268976&sectorCode=SOV](http://www.standardandpoors.com/prot/ratings/entity-ratings/en/au/?entityID=268976&sectorCode=SOV); Moody's, viewed 5 September 2012,

     <http://www.moodys.com/credit-ratings/Australia-Government-of-credit-rating-75300>; Fitch Ratings, viewed 5 September 2012, http://www.fitchratings.com/gws/en/esp/issr/80442187 [↑](#footnote-ref-299)
300. RBA, Letter regarding the CGS market, July 2012, p. 1. [↑](#footnote-ref-300)
301. RBA, Letter regarding the CGS market, July 2012, p. 1. [↑](#footnote-ref-301)
302. Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012, paragraph 116. [↑](#footnote-ref-302)
303. 'Liquidity means that you do not have to accept a discount from true value if you want to sell the asset quickly.' R. Brealey, S. Myers, G. Partington, and D. Robinson, Principles of Corporate Finance, McGraw-Hill Australia: First Australian Edition, 2007,, p. 1082. [↑](#footnote-ref-303)
304. Reserve Bank of Australia, Letter to the AER, August 2007; Australian Treasury, The Treasury Bond yield as a proxy for the CAPM risk-free rate, August 2007. [↑](#footnote-ref-304)
305. Reserve Bank of Australia, Letter to the AER, August 2007, p. 1; Australian Treasury, The Treasury Bond yield as a proxy for the CAPM risk-free rate, August 2007, p. 1. [↑](#footnote-ref-305)
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309. RBA, Letter regarding the CGS market, July 2012, p. 1. [↑](#footnote-ref-309)
310. Rob Nicholl, After the Storm - Does it Get Easier?, Australian Business Economists Speech, Sydney, 22 May 2012. [↑](#footnote-ref-310)
311. Rob Nicholl, After the Storm - Does it Get Easier?, Australian Business Economists Speech, Sydney, 22 May 2012, p. 7. [↑](#footnote-ref-311)
312. Initially stated in 02-03 Budget, [www.budget.gov.au/2003-04/bp1/html/bst7.htm](http://www.budget.gov.au/2003-04/bp1/html/bst7.htm); reaffirmed in 11-12 Budget, [www.budget.gov.au/2011-12/content/bp1/html/bp1\_bst7-03.htm](http://www.budget.gov.au/2011-12/content/bp1/html/bp1_bst7-03.htm) [↑](#footnote-ref-312)
313. Treasury and AOFM, Letter regarding the CGS Market, July 2012, p. 3. [↑](#footnote-ref-313)
314. 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. [↑](#footnote-ref-314)
315. Treasury and AOFM, Letter regarding the CGS Market, July 2012, p. 1. [↑](#footnote-ref-315)
316. Australian Competition Tribunal, Telstra Corporation Limited ABN 33 051 775 556 [2010] ACompT 1, 10 May 2010, paragraph 417. [↑](#footnote-ref-316)
317. McKenzie and Partington, Supplementary report on the MRP, February 2012, pp. 11–12.. [↑](#footnote-ref-317)
318. 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. [↑](#footnote-ref-318)
319. McKenzie and Partington, Supplementary report on the MRP, February 2012, p. 12. [↑](#footnote-ref-319)
320. The AER used an indicative 20 business day averaging period ending on 10 August 2012. The AER will update this in the final decision with Multinet's proposed averaging period. [↑](#footnote-ref-320)
321. Discussed further in section 4.2.1. [↑](#footnote-ref-321)
322. Federal Court of Australia, ActewAGL Distribution v The Australian Energy Regulator [2011] FCA 639, 8 June, 2011, paragraph 119. [↑](#footnote-ref-322)
323. Federal Court of Australia, ActewAGL Distribution v The Australian Energy Regulator [2011] FCA 639, 8 June 2011, paragraph 119. [↑](#footnote-ref-323)
324. Lally, Risk free rate and present value, August 2012, p. 3. [↑](#footnote-ref-324)
325. 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. [↑](#footnote-ref-325)
326. 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>>. [↑](#footnote-ref-326)
327. Lally, Risk free rate and present value, August 2012, pp. 5-6 [↑](#footnote-ref-327)
328. Lally, Risk free rate and present value, August 2012, p. 3 [↑](#footnote-ref-328)
329. Lally, Risk free rate and present value, August 2012, p. 3 [↑](#footnote-ref-329)
330. Lally, Risk free rate and present value, August 2012, p. 3 [↑](#footnote-ref-330)
331. Lally, Risk free rate and present value, August 2012, p. 7 [↑](#footnote-ref-331)
332. Lally, Risk free rate and present value, August 2012, p. 7 [↑](#footnote-ref-332)
333. AER, Final decision—WACC Review, May 2009, pp. 173-174 [↑](#footnote-ref-333)
334. Lally, Risk free rate and present value, August 2012, p. 7. [↑](#footnote-ref-334)
335. 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. [↑](#footnote-ref-335)
336. Envestra, Albury access arrangement information, 30 March 2012, pp. 140-144; Envestra, Victoria access arrangement information, 30 March 2012, pp. 156-160; [↑](#footnote-ref-336)
337. Australian Competition Tribunal, *Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14,* 26 July 2012, paragraph 153. [↑](#footnote-ref-337)
338. McKenzie, M. and Partington, G., *Equity market risk premium*, 21 December 2011, pp. 5–6. [↑](#footnote-ref-338)
339. 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. [↑](#footnote-ref-339)
340. 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. 1504. [↑](#footnote-ref-340)
341. 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. [↑](#footnote-ref-341)
342. Brailsford, Handley and Maheswaran, Re-examination of the historical equity risk premium in Australia, Accounting and Finance, vol. 48, 2008, pp. 85-86. [↑](#footnote-ref-342)
343. Handley, *An estimate of the historical equity risk premium for the period 1883 to 2011*, April 2012, p. 6. Handley's estimates of the arithmetic averages starting in 1883 and 1958, updated to 2011, are confirmed by the NERA report submitted by the Victorian distribution network service providers in Aurora's revised proposal submission. Handley's and NERA's updates of the geometric average over the periods 1883–2011 and 1958–2011 differ by one basis point. The reason for this difference is unclear to the AER, but the difference appears immaterial. See NERA, *The market risk premium,* 20 February 2012, pp. 8–9. [↑](#footnote-ref-343)
344. In its submission to 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. [↑](#footnote-ref-344)
345. 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. [↑](#footnote-ref-345)
346. Appendix B discusses the details. [↑](#footnote-ref-346)
347. Australian Competition Tribunal, *Application by Envestra Ltd (No 2) [2012] ACompT4*, 11 January 2012, paragraph 157. [↑](#footnote-ref-347)
348. McKenzie, M. and G. Partington, *Equity market risk premium*, 21 December 2011, pp. 6–7. [↑](#footnote-ref-348)
349. Damodoran, A. *Equity risk premiums: determinants, estimation and implications—the 2012 edition,* Mach 2012, p. 24. [↑](#footnote-ref-349)
350. McKenzie, M. and Partington, G., *Review of regime switching framework and critique of survey evidence,* August 2012, p. 19. [↑](#footnote-ref-350)
351. Joye, C., *Super funds miss mark in bias to equities,* Australian Financial Review, 14 August 2012. [↑](#footnote-ref-351)
352. 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. [↑](#footnote-ref-352)
353. Lally, *Cost of equity and the market risk premium*, 25 July 2011, p. 8 [↑](#footnote-ref-353)
354. McKenzie, M. and Partington, G., *Equity market risk premium*, 21 December 2011, p. 7 [↑](#footnote-ref-354)
355. Lally, *Cost of equity and the market risk premium*, 25 July 2011, p. 24. [↑](#footnote-ref-355)
356. Lally, *Cost of equity and the market risk premium*, 25 July 2011, p. 27. [↑](#footnote-ref-356)
357. ACCC, *Australian Postal Corporation, 2010 Price Notification*, May 2010 p. 80–81; ACCC, *Position Paper in relation to the Australian Rail Track Corporation’s proposed Hunter Valley Rail network Access Undertaking*, 21 December 2010, p. 104; ACCC, *Inquiry to make final access determinations for the declared fixed line services, Final Report*, July 2011, p. 63; ACCC, *Pricing principles for price approvals and determinations under the Water Charge (Infrastructure) Rules 2010*, July 2011, pp. 32–33; and ACCC, *Airservices Australia price notification, Final decision*, September 2011, p. 26, 29. [↑](#footnote-ref-357)
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359. ESCV, *Metro proposed access arrangement, Final decision, August 2011*, p. 85. [↑](#footnote-ref-359)
360. QCA, *Final Report, Gladstone Area Water Board: Investigation of Pricing Practices*, June 2010, p. 124; QCA, Final decision, Dalrymple Bay Coal Terminal 2010 Draft Access Undertaking, September 2010, p. 8; QCA, Draft Report -, SunWater Irrigation Price Review: 2012-17 - Volume 1, November 2011, p. 392. [↑](#footnote-ref-360)
361. IPART, Final report, Review of water prices for Sydney Desalination Plant Pty Limited, December 2011, p. 80; IPART, Final report, Review of prices for Sydney Water Corporation’s water, sewerage, drainage and other services, June 2012, p. 87; IPART, Final report, Review of prices for the Sydney Catchment Authority, June 2012, p. 90; IPART, Final report - Changes in regulated electricity retail prices from 1 July 2012, July 2012, p. 102. [↑](#footnote-ref-361)
362. ESCOSA, Final Advice, Advice on a Regulatory Rate of Return for SA Water – Final Advice, February 2012, p. 50 [↑](#footnote-ref-362)
363. Australian Competition Tribunal, *Application by Envestra Limited (No 2) [2012] ACompT 4*, 11 January 2012, paragraphs 145 and 148. [↑](#footnote-ref-363)
364. Australian Competition Tribunal, *Application by WA Gas Networks Pty Ltd (No 3) ACompT 12,* 8 June 2012, paragraphs 105–8.

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365. Appendix B discusses this application in detail. [↑](#footnote-ref-365)
366. Australian Competition Tribunal, Application by Envestra Limited (No 2) [2012] ACompT 3, 11 January 2012, paragraphs 159–63. [↑](#footnote-ref-366)
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368. Capital Research, *Telstra’s WACC for network ULLS and the ULLS and SSS businesses—*r*eview of reports by Prof. Bowman*, March 2006, p. 17. [↑](#footnote-ref-368)
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370. Bishop, S., *A conservative and consistent approach to WACC estimation by valuers*, Value Advisor Associates, 2009. [↑](#footnote-ref-370)
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374. Asher, *Equity Risk Premium Survey*—*results and comments*, Actuary Australia, July 2011, no. 161, pp. 13–14. [↑](#footnote-ref-374)
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     McKenzie, M. and Partington, G. *Review of regime switching framework and critique of survey evidence,* August 2012, p. 28. [↑](#footnote-ref-375)
376. Envestra, Albury access arrangement information, 30 March 2012, pp. 144-146; Envestra, Victoria access arrangement information, 30 March 2012, pp. 160-162; [↑](#footnote-ref-376)
377. Australian Competition Tribunal, *Application by WA Gas Network Pty Ltd (No 3) [2012] ACompT*, 8 June 2012, paragraphs 61–66; see also Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012, paragraphs 80–84, 100–103. [↑](#footnote-ref-377)
378. S. 24 (5) of the NGL [↑](#footnote-ref-378)
379. Lally, C*ost of equity and the MRP,* July 2012, p. 22. [↑](#footnote-ref-379)
380. Envestra, Albury access arrangement information, 30 March 2012, p. 144; Envestra, Victoria access arrangement information, 30 March 2012, p. 160; [↑](#footnote-ref-380)
381. See section 1.3.1 for further discussion. [↑](#footnote-ref-381)
382. AER, Final decision: WACC review, May 2009, pp. 72–7. [↑](#footnote-ref-382)
383. CGS prices are observable in a market; as CGS have promised future cash flows, the prevailing yield reflects market expectations for the future. Discussed further in section 1.3.1 and Appendix B. [↑](#footnote-ref-383)
384. Equity prices are observable in a market; but as equities do not have promised future cash flows, it is not possible to observe a yield that accurately reflects market expectations and takes into account future cash flows. See section 1.3.2 for further discussion. [↑](#footnote-ref-384)
385. Lally, C*ost of equity and the MRP,* July 2012, p. 7. [↑](#footnote-ref-385)
386. Lally, C*ost of equity and the MRP,* July 2012, p. 7. [↑](#footnote-ref-386)
387. McKenzie and Partington, *Supplementary report on the MRP*, February 2012, p.10 [↑](#footnote-ref-387)
388. Lally, C*ost of equity and the MRP,* July 2012, pp. 8-9. [↑](#footnote-ref-388)
389. See Damodaran, Equity risk premiums: determinants, estimation and implications—the 2012 edition, March 2012, pp. 77–9. [↑](#footnote-ref-389)
390. CEG, *Internal consistency of risk free rate and MRP in the CAPM*, March 2012, p. 17. [↑](#footnote-ref-390)
391. By applying the AMP method, CEG assumed the market cost of equity at any point in time is the same for all future years. If, for example, the current risk free rate were unusually low, then the MRP would assume to be unusually high by an exactly offsetting amount. [↑](#footnote-ref-391)
392. Lally, *Cost of equity and the MRP,* July 2012, pp. 9–12, 15. [↑](#footnote-ref-392)
393. Lally, *Cost of equity and the MRP,* July 2012, p. 11. [↑](#footnote-ref-393)
394. Lally, *Cost of equity and the MRP,* July 2012, p. 15. [↑](#footnote-ref-394)
395. CEG, *Internal consistency of risk free rate and MRP in the CAPM,* March 2012, pp. 33–40. [↑](#footnote-ref-395)
396. Rule 40 of the NGR sets out the AER’s discretion in deciding on an access arrangement proposal. When the NGL and NGR do not state the AER has 'limited' discretion in relation to a decision, the AER can withhold its approval of an element of an access arrangement proposal under rule 40(3) of the NGR. [↑](#footnote-ref-396)
397. Lally, Cost of equity and the MRP, July 2012, p. 14. [↑](#footnote-ref-397)
398. Envestra, Victorian access arrangement information, 30 March 2012, p. 157-8, Envestra, Albury access arrangement information, 30 March 2012, p. 141-2. [↑](#footnote-ref-398)
399. 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, May 2009. [↑](#footnote-ref-399)
400. Most Australian regulators had previously provided electricity and gas service providers with an equity beta of either 0.9 or 1.0. In its last decision on the RBP, the ACCC adopted an equity beta of 1.0. [↑](#footnote-ref-400)
401. During the WACC review the AER considered a submission which noted that, ‘in 2006, in valuing AGL’s then energy network assets Grant Samuel adopted a range of 0.8 to 0.9... In 2007, [Grant Samuel] also adopted a similar range for SP AusNet.' The Grant Samuel estimate has been considered in deriving the value adopted by the AER of 0.8. [↑](#footnote-ref-401)
402. It is unclear how the EUCV has derived the 0.55 point estimate. The AER considers the empirical evidence from the WACC review suggested a range of 0.4-.07. [↑](#footnote-ref-402)
403. The AER notes that ESCV effectively provided an equity beta of 0.8 by making an allowance in Total Revenue to reflect the difference in revenue from using an equity beta of 0.8 compared to an equity beta of 0.7. ESCV, Gas access arrangement review 2008-2012 final decision – public version, 7 March 2008, p. 13. [↑](#footnote-ref-403)
404. EUCV, Applications from Envestra, MultiNet and SP Ausnet, A response by EUCV, June 2012, p. 57, 58. [↑](#footnote-ref-404)
405. S. 24(2) of the NGL. [↑](#footnote-ref-405)
406. This estimate also reflects the AER's amendment to the bond sample used to extrapolate Bloomberg's seven year, BBB rated fair value curve. This amendment is discussed in detail further in this document. [↑](#footnote-ref-406)
407. Envestra, Access arrangement information, 30 March 2012, pp. 144–146. [↑](#footnote-ref-407)
408. For example, see AER, Final Decision: APT Petroleum Pipeline Pty Ltd access arrangement final decision Roma to Brisbane Pipeline 2012-13 to 2016-17, August 2012. [↑](#footnote-ref-408)
409. Other factors—for example, industry type—may also be relevant in determining the level of risk involved in providing reference services. [↑](#footnote-ref-409)
410. Australian Competition Tribunal, Application by Envestra Limited (No 2) [2012] ACompT 3, 11 January 2012, paragraphs 95, 118, 120–121; see also Australian Competition Tribunal, Application by APT Allgas Energy Ltd [2012] ACompT 5, 11 January 2012. [↑](#footnote-ref-410)
411. This is because seven years is the maximum term currently published for the Bloomberg BBB fair value curve. [↑](#footnote-ref-411)
412. PwC, SP AusNet, MultiNet Gas, Envestra, and APA Group: Estimating the benchmark debt risk premium, March 2012, p. 22. [↑](#footnote-ref-412)
413. PwC, SP AusNet, MultiNet Gas, Envestra, and APA Group: Estimating the benchmark debt risk premium, March 2012, p. 13. [↑](#footnote-ref-413)
414. EUCV, Victorian gas distribution revenue reset, Application from Envestra, Multinet and SP AusNet, A response by EUCV, June 2012. [↑](#footnote-ref-414)
415. For example, the DRP for seven year debt should be determined with reference to the seven year risk free rate. [↑](#footnote-ref-415)
416. Australian Competition Tribunal, Application by Envestra Limited (No 2) [2012] ACompT 3, 11 January 2012, paragraphs 95, 118, 120–121; see also Australian Competition Tribunal, Application by APT Allgas Energy Ltd [2012] ACompT 5, 11 January 2012. [↑](#footnote-ref-416)
417. Envestra, Albury access arrangement information, 30 March 2012, pp. 146-147; Envestra, Victoria access arrangement information, 30 March 2012, pp. 162-163; [↑](#footnote-ref-417)
418. Envestra, Victorian access arrangement information, 30 March 2012, p. 162. Envestra, Albury access arrangement information, 30 March 2012, p. 145. [↑](#footnote-ref-418)
419. 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. [↑](#footnote-ref-419)
420. AER, draft decision,Envestra Ltd Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016, February 2011, p. 93. [↑](#footnote-ref-420)
421. NGL, s23. AER, Final decision: Electricity transmission and distribution network service providers: Review of the weighted average cost of capital (WACC) parameters, 1 May 2009, p. 116-126. [↑](#footnote-ref-421)
422. NGR, r. 76(b). [↑](#footnote-ref-422)
423. Regulatory depreciation allowance is the net total of the straight-line depreciation (negative) and the annual inflation indexation (positive) on the projected capital base. [↑](#footnote-ref-423)
424. Envestra Victoria, Access arrangement information, March 2012, p. 143; Envestra Albury, Access arrangement information, March 2012, p. 127. [↑](#footnote-ref-424)
425. Envestra Victoria, Access arrangement information, March 2012, p. 143; Envestra Albury, Access arrangement information, March 2012, p. 127. [↑](#footnote-ref-425)
426. NGR, r. 72(1)(c)(ii). [↑](#footnote-ref-426)
427. NGR, rr. 88(1) and 88(2). [↑](#footnote-ref-427)
428. NGR, r. 89. [↑](#footnote-ref-428)
429. NGR, schedule 1, r. 5(1)(d). [↑](#footnote-ref-429)
430. NGL, s 28; NGR r. 100(1). The NGO is set out in NGL, s. 23. The revenue and pricing principles are set out in NGL, s. 24. [↑](#footnote-ref-430)
431. NGR, rr. 89(3) and 40(2). The example provided in r. 40(2) states: The AER has limited discretion under r. 89. Rule 89 governs the design of a depreciation schedule. In dealing with a full access arrangement submitted for its approval, the AER cannot, in its draft decision, insist on change to an aspect of a depreciation schedule governed by r. 89 unless the AER considers the change is necessary to correct non-compliance with a provision of the Law or an inconsistency between the depreciation schedule and the applicable criteria. Even though the AER might consider change desirable to achieve more complete conformity between the depreciation schedule and the principles and objectives of the Law, it would not be entitled to give effect to that view in the decision making process. [↑](#footnote-ref-431)
432. NGR, r. 89(1)(a). [↑](#footnote-ref-432)
433. NGR, r. 89(1)(b). [↑](#footnote-ref-433)
434. NGR, r. 89(1)(c). [↑](#footnote-ref-434)
435. NGR, r. 89(1)(d). [↑](#footnote-ref-435)
436. NGR, r. 89(1)(e). [↑](#footnote-ref-436)
437. NGR, r. 89(2). [↑](#footnote-ref-437)
438. The AER’s PTRM was developed based on the post-tax building block approach set out in the National Electricity Rules. Given that Envestra has proposed the post-tax building block approach for its access arrangement, the PTRM can be used to calculate the revenue requirement. [↑](#footnote-ref-438)
439. NGR, r. 89. [↑](#footnote-ref-439)
440. NGR, r. 89(1)(a). [↑](#footnote-ref-440)
441. The AER considers this depreciation method to be a generally superior approach. Its reasons were outlined in its decision on the RFM for electricity transmission network service providers. See AER, Explanatory statement, Proposed amendment, Electricity transmission network service providers, Roll forward model, August 2010, pp. 5–6. [↑](#footnote-ref-441)
442. ESC, Envestra GAAR 2008 Revenue Model Further Final Decision, 2008. These standard economic lives are also comparable with the range of standard economic lives approved in the AER’s recent access arrangement decisions. [↑](#footnote-ref-442)
443. Envestra Victoria, Access arrangement information, March 2012, p. 143; Envestra Albury, Access arrangement information, March 2012, p. 126. [↑](#footnote-ref-443)
444. Envestra Victoria, Access arrangement information, March 2012, p. 143; Envestra Albury, Access arrangement information, March 2012, p. 126. [↑](#footnote-ref-444)
445. NGR, r. 89(1)(c). [↑](#footnote-ref-445)
446. AER, Roma to Brisbane Pipeline draft decision, April 2012, p. 19; AER, Aurora Energy draft distribution determination, November 2011, p. 205. [↑](#footnote-ref-446)
447. Australian Accounting Standard Board, Accounting standard AASB1021: Depreciation, August 1997,   
     pp. 10–11. [↑](#footnote-ref-447)
448. ITAA 1997, s. 40-30. [↑](#footnote-ref-448)
449. AER, *Information request for Envestra relating to PTRM inputs (‘Land & buildings’)*, 21 June 2012. [↑](#footnote-ref-449)
450. Envestra, Response to AER information request for Envestra relating to PTRM inputs (‘Land & buildings’), 25 June 2012. [↑](#footnote-ref-450)
451. NGR, r. 89(1)(b). [↑](#footnote-ref-451)
452. AER, APT Allgas draft decision, February 2011, p. 37. AER, Envestra draft decision (Qld gas network), February 2011, p. 46. AER, Envestra draft decision (SA gas network), February 2011, p. 52. AER, NT Gas, draft decision, April 2011, p. 56. AER, Country Energy (Envestra) draft decision, November 2009, p. 37. [↑](#footnote-ref-452)
453. NGR, r. 89(1)(b). [↑](#footnote-ref-453)
454. AER, AER Information request 39, 3 August 2011. [↑](#footnote-ref-454)
455. Envestra, Response to AER information request 39, 6 August 2012. [↑](#footnote-ref-455)
456. Envestra Victoria, Access arrangement information, March 2012, p. 99; Envestra Albury, Access arrangement information, March 2012, p. 95. [↑](#footnote-ref-456)
457. NGR, r. 89(1)(b). [↑](#footnote-ref-457)
458. NGR, rr. 91 and 74. [↑](#footnote-ref-458)
459. NGR, rr. 91 and 74. [↑](#footnote-ref-459)
460. NGR, rr. 91 and 71. [↑](#footnote-ref-460)
461. NGR, rr. 91 and 71. [↑](#footnote-ref-461)
462. All forecasts in this section are from Envestra's access arrangement proposal. Note, in some instances, the forecast in the access arrangement proposal differed from information provided in Envestra's confidential opex model. [↑](#footnote-ref-462)
463. Envestra, Victorian access arrangement information, 30 March 2012, tables 3.1 and 6.6. [↑](#footnote-ref-463)
464. Envestra, Albury access arrangement information, 30 March 2012, tables 3.1 and 6.6. [↑](#footnote-ref-464)
465. Envestra, Victorian access arrangement information, 30 March 2012, p. 94.

     Envestra, Albury access arrangement information, 30 March 2012, p. 90. [↑](#footnote-ref-465)
466. Envestra, Victorian access arrangement information, 30 March 2012, p. 95. [↑](#footnote-ref-466)
467. Envestra, Victorian access arrangement information, 30 March 2012, p. 96. [↑](#footnote-ref-467)
468. Envestra, Victorian access arrangement information, 30 March 2012, pp. 96–98. [↑](#footnote-ref-468)
469. Envestra, Albury access arrangement information, 30 March 2012, pp. 91-93. [↑](#footnote-ref-469)
470. Envestra, Victorian access arrangement information, 30 March 2012, p. 105, 109.

     Envestra, Albury access arrangement information, 30 March 2012, p. 99, 103. [↑](#footnote-ref-470)
471. Envestra, Victorian access arrangement information, 30 March 2012, p. 102. [↑](#footnote-ref-471)
472. Envestra attachment VA33. [↑](#footnote-ref-472)
473. Envestra also forecast a step change related to the increase in insurance premiums which was discussed in its proposal as a permanent step change but did not include in its forecast costs of permanent step changes. [↑](#footnote-ref-473)
474. Envestra, Victorian access arrangement information, 30 March 2012, p. 105. [↑](#footnote-ref-474)
475. Envestra, Albury access arrangement information, 30 March 2012, p. 98. [↑](#footnote-ref-475)
476. Envestra, Victorian access arrangement information, 30 March 2012, p. 105.

     Envestra, Albury access arrangement information, 30 March 2012, p. 99. [↑](#footnote-ref-476)
477. Envestra, Victorian access arrangement information, 30 March 2012, pp. 105–106.

     Envestra, Albury access arrangement information, 30 March 2012, p. 102. [↑](#footnote-ref-477)
478. AER analysis of Envestra Victoria's opex forecasting model. [↑](#footnote-ref-478)
479. AER analysis of Envestra Albury's opex forecasting model. [↑](#footnote-ref-479)
480. Envestra, Victorian access arrangement information, 30 March 2012, p. 105. [↑](#footnote-ref-480)
481. Envestra, Albury access arrangement information, 30 March 2012, pp. 93–99. [↑](#footnote-ref-481)
482. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, p. 31. [↑](#footnote-ref-482)
483. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, p. 31. [↑](#footnote-ref-483)
484. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, pp. 29–32. [↑](#footnote-ref-484)
485. NGR, rr. 91(2) and 40(2). [↑](#footnote-ref-485)
486. NGR, rr. 91 and 40(2). [↑](#footnote-ref-486)
487. NGR, rr. 74(2) and 91(2). [↑](#footnote-ref-487)
488. NGR, rr. 91(1) and 74(2). [↑](#footnote-ref-488)
489. These costs were not included in Envestra's forecast of opex in its access arrangement proposal but were included as forecast in Envestra's PTRM so the AER's assessment of these elements of Envestra's proposal is assessed in the opex chapter. [↑](#footnote-ref-489)
490. AASB, 137: Provisions, contingent liabilities and contingent assets, section 10. [↑](#footnote-ref-490)
491. NGR, r. 74(2). [↑](#footnote-ref-491)
492. Envestra, Victorian Access arrangement information, 30 March 2012, p. 96. [↑](#footnote-ref-492)
493. Envestra, Access arrangement information, 30 March 2012, p. 94. [↑](#footnote-ref-493)
494. Envestra, *Forecast UAFG 2013-17 Access Arrangement Period, March 2012*. p.6. [↑](#footnote-ref-494)
495. AEMO Wholesale Market Distribution UAFG Procedures (Victoria), Version No. 2. [↑](#footnote-ref-495)
496. Victorian Gas Distribution System Code, Schedule 1, Part C. [↑](#footnote-ref-496)
497. Envestra, Victorian Access arrangement information, 30 March 2012, p. 105. [↑](#footnote-ref-497)
498. Essential Services Commission, Gas distribution system code, Version 9.0, 12 December 2008, p. 45. [↑](#footnote-ref-498)
499. Envestra, Victorian Access arrangement information, 30 March 2012, p. 105. [↑](#footnote-ref-499)
500. NGR, rr. 74(2) and 91(1). [↑](#footnote-ref-500)
501. NGR, r. 74. [↑](#footnote-ref-501)
502. Envestra, Victorian access arrangement information, 30 March 2012, p. 99. [↑](#footnote-ref-502)
503. NGR, r. 91(1). [↑](#footnote-ref-503)
504. Envestra, Victorian access arrangement information, 30 March 2012, p. 100; Envestra, Albury access arrangement information, 30 March 2012, p. 95. [↑](#footnote-ref-504)
505. Envestra, Victorian access arrangement information, 30 March 2012, p. 100. [↑](#footnote-ref-505)
506. NGR, r. 91(1). [↑](#footnote-ref-506)
507. NGR, r. 74(2). [↑](#footnote-ref-507)
508. Envestra, Victorian access arrangement information, 30 March 2012, p. 100. [↑](#footnote-ref-508)
509. NGR, r. 91(1). [↑](#footnote-ref-509)
510. Envestra, Victorian Access arrangement information, 30 March 2012, p. 100; Envestra, Albury Access arrangement information, 30 March 2012, p. 95. [↑](#footnote-ref-510)
511. NGR, r. 91(1). [↑](#footnote-ref-511)
512. Envestra, Victorian Access arrangement information, 30 March 2012, p. 100. [↑](#footnote-ref-512)
513. NGR, r. 91(1). [↑](#footnote-ref-513)
514. AER, Envestra (Vic) change in taxes event pass through application, May 2012, p. 12. [↑](#footnote-ref-514)
515. AER, Envestra (Vic) change in taxes event pass through application, May 2012, p. 15. [↑](#footnote-ref-515)
516. Envestra, Victorian Access arrangement information, 30 March 2012, pp. 101–102; Envestra, Albury Access arrangement information, 30 March 2012, p. 96. [↑](#footnote-ref-516)
517. NGR, r. 91(1). [↑](#footnote-ref-517)
518. Envestra, Victorian Access arrangement information - Business Case VA06, 30 March 2012, p. 2. [↑](#footnote-ref-518)
519. Envestra, Victorian Access arrangement information, 30 March 2012, p. 102.

     Envestra, Albury Access arrangement information, 30 March 2012, p. 96. [↑](#footnote-ref-519)
520. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, p. 31. [↑](#footnote-ref-520)
521. NGR, r. 74(2). [↑](#footnote-ref-521)
522. NGR, r. 91(1). [↑](#footnote-ref-522)
523. APA GasNet, Response to information request 15, 27 June 2012, p. 4. [↑](#footnote-ref-523)
524. APA GasNet, Metering Strategy Plan 2011, p. 24. [↑](#footnote-ref-524)
525. NGR, r. 74(2). [↑](#footnote-ref-525)
526. NGR, r. 91(1). [↑](#footnote-ref-526)
527. Envestra, Response to AER information request 40, 7 August, 2012. [↑](#footnote-ref-527)
528. NGR, r. 74(2)(b). [↑](#footnote-ref-528)
529. Envestra, Victorian Access arrangement information, 30 March 2012, p. 103; Envestra, Albury Access arrangement information, 30 March 2012, p. 97. [↑](#footnote-ref-529)
530. NGR, r. 74(2). [↑](#footnote-ref-530)
531. NGR, r. 91(1). [↑](#footnote-ref-531)
532. Envestra, Victorian Access arrangement information, 30 March 2012, p. 103.

     Envestra, Albury Access arrangement information, 30 March 2012, p. 97. [↑](#footnote-ref-532)
533. Envestra, Victorian Access arrangement information, 30 March 2012, p. 103.

     Envestra, Albury Access arrangement information, 30 March 2012, p. 97. [↑](#footnote-ref-533)
534. NGR, r. 74(2). [↑](#footnote-ref-534)
535. NGR, r. 74. [↑](#footnote-ref-535)
536. Australian Bureau of Statistics, Consumer price index, 16th series weighting pattern, catalogue number 6471.0, 2011. [↑](#footnote-ref-536)
537. NGR, r. 74(2). [↑](#footnote-ref-537)
538. Envestra, Victorian Access arrangement information, 30 March 2012, p. 103. [↑](#footnote-ref-538)
539. Envestra, Victorian Access arrangement information, 30 March 2012, p. 151. [↑](#footnote-ref-539)
540. http://www.premier.vic.gov.au/media-centre/media-releases/4155-victorian-government-defers-national-energy-retail-law-to-safeguard-consumer-protections.html. [↑](#footnote-ref-540)
541. http://www.premier.vic.gov.au/media-centre/media-releases/4155-victorian-government-defers-national-energy-retail-law-to-safeguard-consumer-protections.html. [↑](#footnote-ref-541)
542. Envestra, Victorian Access arrangement information, 30 March 2012, p. 95. [↑](#footnote-ref-542)
543. Envestra, Victorian Access arrangement information, 30 March 2012, p. 97. [↑](#footnote-ref-543)
544. Envestra, Victorian Access arrangement information, 30 March 2012, p. 97. [↑](#footnote-ref-544)
545. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, p. 31. [↑](#footnote-ref-545)
546. NGR, rr. 74(2) and 91(1). [↑](#footnote-ref-546)
547. Envestra makes incentive payments to end-use consumers, or key market influencers including appliance retailers and/or installers. These payments are made for each additional gas appliance or new service installed. [↑](#footnote-ref-547)
548. Envestra, response to information request 7, 22 June. [↑](#footnote-ref-548)
549. Envestra, response to information request 7, 22 June. [↑](#footnote-ref-549)
550. Envestra, response to information request 7, 22 June. [↑](#footnote-ref-550)
551. This is demonstrated by the manner in which Envestra curtailed this expenditure in the 2008–12 access arrangment period. [↑](#footnote-ref-551)
552. Envestra, Network Development Plan 2013–17, p. 8. [↑](#footnote-ref-552)
553. Envestra, Victorian Access arrangement information - Business Case VA33, 30 March 2012, p. 1. [↑](#footnote-ref-553)
554. Envestra, Victorian Access arrangement information - Business Case VA33, 30 March 2012, p. 1 [↑](#footnote-ref-554)
555. Envestra, Response to AER information request 35, 3 August 2012. [↑](#footnote-ref-555)
556. Envestra, Response to AER information request 35, 3 August 2012. [↑](#footnote-ref-556)
557. Envestra, Response to AER information request 10, 1 July 2012. [↑](#footnote-ref-557)
558. Envestra, Response to AER information request 10, 1 July 2012. [↑](#footnote-ref-558)
559. Envestra, Response to AER information request 10, 1 July 2012. [↑](#footnote-ref-559)
560. Envestra, Victorian Access arrangement information March 2012, pp. 68–39; Envestra, Albury Access arrangement information March 2012, pp. 64–65. [↑](#footnote-ref-560)
561. Envestra, Victorian Access arrangement information, March 2012, p. 50. [↑](#footnote-ref-561)
562. NGR, r. 74(2). [↑](#footnote-ref-562)
563. AER, Information request 6, June 2012. [↑](#footnote-ref-563)
564. Envestra, Response to AER information request 6, p. 8. [↑](#footnote-ref-564)
565. Simply because the report was written in 2004 does not make it obsolete, Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14 (26 July 2012), paragraphs 314-330. [↑](#footnote-ref-565)
566. NEL, s. 24. [↑](#footnote-ref-566)
567. Envestra, Victorian Access arrangement information, 30 March 2012, p. 163. Envestra, Albury Access arrangement information, 30 March 2012, p. 147. [↑](#footnote-ref-567)
568. Deloitte, Debt Financing Costs, September 2010, p. 3. [↑](#footnote-ref-568)
569. Envestra, Victoria Access arrangement information, 30 March 2012, 163. [↑](#footnote-ref-569)
570. NGR, r. 91. [↑](#footnote-ref-570)
571. Envestra, Victorian Access arrangement information, 30 March 2012, p. 163. [↑](#footnote-ref-571)
572. Envestra, South Australian Access Arrangement Information Public Version, 1 October 2010, p. 147. Envestra, Queensland Access Arrangement Information (Public Version), 1 October 2010, p. 139. [↑](#footnote-ref-572)
573. The two differences being that in this Victorian Access proposal, Envestra has only proposed debt raising costs for MTN and not also short term bank debt, and Envestra has proposed a five year refinance cycle rather than a 10 year cycle. [↑](#footnote-ref-573)
574. AER, Envestra LTD, Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016, June 2011, p. 85. AER, Envestra LTD, Access arrangement proposal for the QLD gas network 1 July 201 – 30 June 2016, June 2011, p. 77. [↑](#footnote-ref-574)
575. ACG, Debt and Equity Raising Transaction Costs, Final Report to the Australian Competition and

     Consumer Commission, December 2004, pp. 49–50; see also AER, Final decision, South Australia

     distribution determination 2010–11 to 2014–15, May 2010, pp. 131–132. [↑](#footnote-ref-575)
576. AER, Draft decision, South Australia draft distribution determination 2010–11 to 2014–15, 25

     November 2009, pp. 525–527 [↑](#footnote-ref-576)
577. For instance, when the WACC increased to such a level that simple division of upfront costs might result in under compensation, the AER adjusted the method to allow amortisation. See AER, Draft

     decision, South Australia draft distribution determination 2010–11 to 2014–15, 25 November

     2009, p. 527–530. [↑](#footnote-ref-577)
578. Simply because the report was written in 2004 does not make it obsolete, Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14 (26 July 2012), paragraphs 314-330. Envestra (Vic), Victorian access arrangement information, 30 March 2012, p. 163. [↑](#footnote-ref-578)
579. Deloitte, *Debt Financing Costs*, September 2010, p. 7–9. [↑](#footnote-ref-579)
580. AER, Final decision, Victorian electricity distribution network service providers, Distribution determination 2011–2015, pp. 368–369. [↑](#footnote-ref-580)
581. Deloitte, *Debt Financing Costs*, September 2010, p. 4. [↑](#footnote-ref-581)
582. AER, Draft decision, South Australia draft distribution determination 2010–11 to 2014–15, 25

     November 2009, pp. 527–530. [↑](#footnote-ref-582)
583. Deloitte, Debt Financing Costs, September 2010, p. 4, 8 (footnote 7). [↑](#footnote-ref-583)
584. AER, Final decision, South Australia distribution determination 2010–11 to 2014–15, May 2010,

     p. 131–132. [↑](#footnote-ref-584)
585. Deloitte, Debt Financing Costs, September 2010, p. 7. [↑](#footnote-ref-585)
586. In particular, debt raising costs are invariant across all investment grade credit ratings. See ACG,

     Debt and Equity Raising Transaction Costs, Final Report to the Australian Competition and

     Consumer Commission, December 2004, pp. xv–xix, 12–13, 15–16, 19–20, 52; AER, Final

     decision, New South Wales distribution determination 2009–10 to 2013–14, 28 April 2009,

     pp. 545–549; AER, Final decision, South Australia distribution determination 2010–11 to 2014–

     15, May 2010, pp. 131. [↑](#footnote-ref-586)
587. For example, identifying the number of bonds used as data for tables 5–7 or the derivation of a 5 bppa allowance for credit rating fees. Deloitte, Debt Financing Costs, September 2010, pp. 4, 8– 9. [↑](#footnote-ref-587)
588. AER, Draft decision Envestra LTD, Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016, February 2011, p. 318-320. AER, Envestra LTD, Draft Decision Access arrangement proposal for the QLD gas network 1 July 201 – 30 June 2016, February 2011, p. 300-302. [↑](#footnote-ref-588)
589. Envestra Vic, Envestra (Albury) PTRM ‘liquidity costs’ tab. [↑](#footnote-ref-589)
590. Envestra, Victoria Access arrangement information, 30 March 2012, p. 163. Envestra, Albury Access arrangement information, 30 March 2012, p. 147. [↑](#footnote-ref-590)
591. S&P, Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, September 2011. [↑](#footnote-ref-591)
592. Envestra, Victoria Access arrangement information, 30 March 2012, p. 164. Envestra, Albury Access arrangement information, 30 March 2012, p. 148. [↑](#footnote-ref-592)
593. P, Methodology and assumptions; liquidity descriptors for global corporate issuers, September 2011, p. 5. [↑](#footnote-ref-593)
594. Envestra, Victoria Access arrangement information, 30 March 2012, p. 164. Envestra, Albury Access arrangement information, 30 March 2012, p. 148. [↑](#footnote-ref-594)
595. Envestra, Victoria Access arrangement information, 30 March 2012, p. 164. Envestra, Albury Access arrangement information, p. 148. [↑](#footnote-ref-595)
596. ACG, Working capital—Relevance for the Assessment of Reference Tariffs, March 2002, p. 11 [↑](#footnote-ref-596)
597. ACG, Working capital—Relevance for the Assessment of Reference Tariffs, March 2002 [↑](#footnote-ref-597)
598. ACG, Working capital—Relevance for the Assessment of Reference Tariffs, March 2002, p. 2. [↑](#footnote-ref-598)
599. ACG, Working capital––Relevance for the Assessment of Reference Tariffs, March 2002, p. 24. [↑](#footnote-ref-599)
600. AER, Issues Paper, Guidelines, models and schemes for electricity distribution network service providers, November 2007, p. 11. [↑](#footnote-ref-600)
601. AER, Issues Paper, Guidelines, models and schemes for electricity distribution network service providers, November 2007, p. 11. Explanatory Statement, Proposed Electricity distribution network service providers post-tax revenue model, April 2008. [↑](#footnote-ref-601)
602. Marshall, I. David, H. Accounting: what the numbers mean, 2nd edn, p. 304. R, Shield, Financial accounting and company accounts, 2004, p. 7. [↑](#footnote-ref-602)
603. AASB 101. An entity shall classify an asset as current when:

     (a) it expects to realise the asset, or intends to sell or consume it, in its normal operating cycle;

     (b) it holds the asset primarily for the purpose of trading;

     (c) it expects to realise the asset within twelve months after the reporting period; or

     (d) the asset is cash or a cash equivalent (as defined in AASB 107) unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

     An entity shall classify all other assets as non-current. [↑](#footnote-ref-603)
604. This is caluclated as 1.8 per cent of Envestra's nominal building block requirment. [↑](#footnote-ref-604)
605. S&P, Methodology and assumptions; liquidity descriptors for global corporate issuers, September 2011, p. 5. [↑](#footnote-ref-605)
606. NGO, section 24. [↑](#footnote-ref-606)
607. NGO, section 23, [↑](#footnote-ref-607)
608. NGO, section 24. [↑](#footnote-ref-608)
609. NGR, r. 98. [↑](#footnote-ref-609)
610. Envestra, Albury Access arrangement information March 2012, p. 163. [↑](#footnote-ref-610)
611. Envestra, Victoria Access arrangement information March 2012, p. 179; Envestra, Albury Access arrangement information March 2012, pp. 163­–164. [↑](#footnote-ref-611)
612. Transitional arrangements in the NGR require the AER to ensure revenue calculations made for the access arrangement period properly reflect the operation of any incentive mechanism approved under section 8.44 of the Gas Code in an earlier access arrangement period (NGR, Schedule 1, clause 5(1)(a)). [↑](#footnote-ref-612)
613. NGR, r. 98. [↑](#footnote-ref-613)
614. This is to ensure that the incentive mechanism provides effective incentives to encourage efficiency in the provision of reference services consistent with NGR, r. 98 and the RPP (NGL s. 24). [↑](#footnote-ref-614)
615. ESC, Gas access arrangement review 2008–2012: Final decision, 7 March 2008, pp. 584–585. [↑](#footnote-ref-615)
616. Essential Services Commission Appeal Panel, Reference: E2/2008, 11 November 2008, paragraphs 154–179. [↑](#footnote-ref-616)
617. NGR, r. 98; NGL s. 24. [↑](#footnote-ref-617)
618. AER, Final decision: Electricity transmission network service providers Efficiency benefit sharing scheme, September 2007; AER, Final decision: Electricity distribution network service providers Efficiency benefit sharing scheme, June 2008. [↑](#footnote-ref-618)
619. The AER discussed the need to provide service providers with continuous incentives to reduce costs and gain efficiencies and the reasons for considering 5 years as the appropriate carryover period in AER, Final decision: Electricity distribution network service providers Efficiency benefit sharing scheme, June 2008. [↑](#footnote-ref-619)
620. The effects of shifting costs into the base year are modelled in AER, Final decision: Electricity distribution network service providers Efficiency benefit sharing scheme, June 2008, appendix B. [↑](#footnote-ref-620)
621. NGL, s.23. [↑](#footnote-ref-621)
622. NGL, s.24. [↑](#footnote-ref-622)
623. Envestra, Victoria Access arrangement information, March 2012, pp 68­–74; Envestra, Albury Access arrangement information, March 2012, pp 64–70. [↑](#footnote-ref-623)
624. Attachment 5.3 to Envestra’s Access arrangement information, paragraphs 20–21 [↑](#footnote-ref-624)
625. Envestra, Victoria Access arrangement information, March 2012, p. 71; Envestra, Albury Access arrangement information, March 2012, p. 67. [↑](#footnote-ref-625)
626. Envestra, Victoria Access arrangement information, March 2012, p. 71; Envestra, Albury Access arrangement information, March 2012, p. 67. [↑](#footnote-ref-626)
627. Economic Insights, *Benchmarking the Victorian Gas Distribution Businesses’ Operating and Capital Costs Using Partial Productivity Indicators*, 26 March 2012, Figures 5, 6, 7 and 8. [↑](#footnote-ref-627)
628. Modelling undertaken by the AER in the development of the electricity distribution EBSS demonstrates that service providers would retain significantly more than 30 per cent of the benefits of the capex deferral. This is set out in detail in AER, Final decision: Electricity distribution network service providers Efficiency benefit sharing scheme, June 2008, Appendix C. [↑](#footnote-ref-628)
629. ESC, Gas Access Arrangement Review 2008–2012 Draft Decision, 28 August 2007, pp. 522–524. [↑](#footnote-ref-629)
630. ESC, Gas Access Arrangement Review 2008–2012 Draft Decision, 28 August 2007, pp. 523–524. [↑](#footnote-ref-630)
631. Under the Gas Industry Act 2001 (Victoria). [↑](#footnote-ref-631)
632. In particular, NGL, s24(3)(a), (3)(c), (6) and (7). [↑](#footnote-ref-632)
633. For Envestra Victoria, this should refer to the table in Envestra Victoria's access arrangement information 2013–17 that replicates Table 7.6. For Envestra Albury, this should refer to the table in Envestra Albury's access arrangement information that replicates Table 7.7. [↑](#footnote-ref-633)
634. For Envestra Victoria, this should refer to the table in Envestra Victoria's access arrangement information 2013–217 that replicates Table 7.6. For Envestra Albury, this should refer to the table in Envestra Albury's access arrangement information that replicates Table 7.7. [↑](#footnote-ref-634)
635. NGR, r. 76(c). [↑](#footnote-ref-635)
636. Envestra Victoria, Post tax revenue model, March 2012; Envestra Albury, Post tax revenue model, March 2012 [↑](#footnote-ref-636)
637. 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 corporate income 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. [↑](#footnote-ref-637)
638. Envestra, Post tax revenue model, March 2012. [↑](#footnote-ref-638)
639. Envestra, Post tax revenue model, March 2012. [↑](#footnote-ref-639)
640. NGR, r. 76(c). [↑](#footnote-ref-640)
641. NGL, s 28; NGR r. 100(1). The NGO is set out in NGL, s. 23. The revenue and pricing principles are set out in NGL, s. 24. [↑](#footnote-ref-641)
642. The asset classes differ between the capital base roll forward and the tax asset base roll forward. However, the total values of annual capex in the 2008–12 access arrangement period will be consistent. [↑](#footnote-ref-642)
643. In the earlier access arrangement, the ESC approved the declining balance method be used as the tax depreciation approach for most of the group 1–6 tax assets with the exception of 'Land & buildings' and 'Repairs' asset classes. [↑](#footnote-ref-643)
644. The AER's preferred method to determine the remaining tax asset lives is the weighted average method. The AER considers the weighted average method provides a better reflection of the mix of assets within an asset class and the effective life of the asset class. The weighted average method involves weighting the remaining life of each capital stream within an asset class (that is, the opening tax capital value and the capital expenditures for each year) by the closing tax capital value of that capital stream as a proportion of the total closing tax capital value of the asset class as a whole. The resulting individual values for each capital stream are then added together to obtain the overall weighted average remaining life of the asset class. [↑](#footnote-ref-644)
645. Envestra Victoria, Post tax revenue model, March 2012 [↑](#footnote-ref-645)
646. Envestra Albury, Post tax revenue model, March 2012 [↑](#footnote-ref-646)
647. AER, Roma to Brisbane Pipeline draft decision, April 2012, p. 22; AER, Aurora Energy draft distribution determination, November 2011, p. 262. [↑](#footnote-ref-647)
648. Australian Accounting Standard Board, Accounting standard AASB1021: Depreciation, August 1997,   
     pp. 10­–11. [↑](#footnote-ref-648)
649. ITAA 1997, s. 40-30. [↑](#footnote-ref-649)
650. AER, AER i*nformation request* 16, 21 June 2012. [↑](#footnote-ref-650)
651. Envestra, Response to AER information request 16, 25 June 2012. [↑](#footnote-ref-651)
652. ITAA 1997, s. 40-65. [↑](#footnote-ref-652)
653. For example, AER, Roma to Brisbane Pipeline draft decision, April 2012, p. 19. [↑](#footnote-ref-653)
654. ESC, Envestra Vic GAAR 2008 Revenue Model Post Appeal Panel Decision, 2008; ESC, Envestra Albury GAAR 2008 Revenue Model Post Appeal Panel Decision, 2008. [↑](#footnote-ref-654)
655. Envestra Victoria, PTRM, March 2012; Envestra Albury, PTRM, March 2012. [↑](#footnote-ref-655)
656. ESC, Envestra Vic GAAR 2008 Revenue Model Post Appeal Panel Decision, 2008; ESC, Envestra Albury GAAR 2008 Revenue Model Post Appeal Panel Decision, 2008. [↑](#footnote-ref-656)
657. ESC, Envestra Vic GAAR 2008 Revenue Model Post Appeal Panel Decision, 2008; ESC, Envestra Albury GAAR 2008 Revenue Model Post Appeal Panel Decision, 2008. [↑](#footnote-ref-657)
658. Australian Competition Tribunal, *Application by Energex Limited (Gamma) (No. 5)[2011] ACompT 9*, 12 May 2011, paragraph 42. [↑](#footnote-ref-658)
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662. NGR, r. 72(1)(d). [↑](#footnote-ref-662)
663. NGR, r. 74(2). [↑](#footnote-ref-663)
664. NGR, r. 74(2). [↑](#footnote-ref-664)
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666. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012 [↑](#footnote-ref-666)
667. NGR, r. 72(1)(a)(iii)(A). [↑](#footnote-ref-667)
668. Core Energy Group, Demand, Energy and Customer Forecasts - Envestra Limited - Gas Access Arrangement Review - Victoria and Albury Networks (2013 to 2017), March 2012, p. 37 [↑](#footnote-ref-668)
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670. ACIL Tasman, Review of Demand Forecasts for Envestra Victoria - Victorian Gas Access Arrangement for the period 2013-2017, August 2012, Section 4 and ACIL Tasman, Review of Demand Forecasts for Envestra Albury - Victorian Gas Access Arrangement for the period 2013-2017, August 2012, Section 4 [↑](#footnote-ref-670)
671. ACIL Tasman, Review of Demand Forecasts for Envestra Victoria - Victorian Gas Access Arrangement for the period 2013-2017, August 2012, p.5 and ACIL Tasman, Review of Demand Forecasts for Envestra Albury - Victorian Gas Access Arrangement for the period 2013-2017, August 2012, p. 5-6 [↑](#footnote-ref-671)
672. NGR, r. 74(2)(b) [↑](#footnote-ref-672)
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686. Core Energy Group, Demand, Energy and Customer Forecasts - Envestra Limited - Gas Access Arrangement Review - Victoria and Albury Networks (2013 to 2017), March 2012, p. 14 [↑](#footnote-ref-686)
687. Australian Energy Market Operator, 2012 Review of the Weather Standards for Gas Forecasting - Part 1 - Victorian EDD Review, April 2012. [↑](#footnote-ref-687)
688. AER, Information request 9 to Envestra Albury, 13 June 2012. [↑](#footnote-ref-688)
689. Envestra Albury, Response to AER: Information request 9, 16 June 2012. [↑](#footnote-ref-689)
690. ACIL Tasman, Review of Demand Forecasts for Envestra Albury - Victorian Gas Access Arrangement for the period 2013-2017, August 2012, p. 30. [↑](#footnote-ref-690)
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692. Envestra Victoria, Response to AER information request 28, 24 July 2012, pp.6–7; Envestra Albury, Response to AER information request 29, 24 July 2012, pp.3–4. [↑](#footnote-ref-692)
693. Envestra Victoria, Response to AER information request 28, 24 July 2012, pp.6–7; Envestra Albury, Response to AER information request 29, 24 July 2012, pp.3–4. [↑](#footnote-ref-693)
694. Envestra Victoria, Access arrangement information, 30 March 2012, p. 199. [↑](#footnote-ref-694)
695. Envestra Victorian, Access arrangement information, 30 March 2012, p. 213; Envestra Albury, Access arrangement information, 30 March 2012, p. 193. [↑](#footnote-ref-695)
696. Envestra Victorian, Access arrangement information, 30 March 2012, p. 214; Envestra Albury, Access arrangement information, 30 March 2012, p. 194. [↑](#footnote-ref-696)
697. Envestra's pricing zones are: Central, Northern, Murray Valley, Bairnsdale and Albury. [↑](#footnote-ref-697)
698. Envestra Victorian, Access arrangement information, 30 March 2012, p. 215; Envestra Albury, Access arrangement information, 30 March 2012, p. 195. [↑](#footnote-ref-698)
699. Envestra Victorian, Access arrangement proposal, 30 March 2012, p. 28. [↑](#footnote-ref-699)
700. NGR, rr. 48(1)(d)(i); 72(1)(j)(i); 72(1)(j)(ii) [↑](#footnote-ref-700)
701. NGR, r. 93(1)–(2) [↑](#footnote-ref-701)
702. NGR r. 94(1)–(2) [↑](#footnote-ref-702)
703. NGR, r. 94(3) [↑](#footnote-ref-703)
704. NGR, r. 94(3)–(4) [↑](#footnote-ref-704)
705. NGR, rr. 48(1)(d)(i); 72(1)(j)(i); 72(1)(j)(ii) [↑](#footnote-ref-705)
706. Envestra Victoria's proposed access arrangement is set out in three parts - Part A, Part B and Part C. These documents can be accessed through the following link: <http://www.aer.gov.au/content/index.phtml/itemId/738144> [↑](#footnote-ref-706)
707. Envestra provided this model to the AER as part of its access arrangement proposal, however, on a confidential basis. [↑](#footnote-ref-707)
708. NGR, r. 48(1)(d)(i). [↑](#footnote-ref-708)
709. NGR, r. 94(6). [↑](#footnote-ref-709)
710. NGR, r. 93 [↑](#footnote-ref-710)
711. NGR, r. 94(1)–(2). [↑](#footnote-ref-711)
712. NGR, r. 94(3). [↑](#footnote-ref-712)
713. NGR, r. 94(4)(b)(i). [↑](#footnote-ref-713)
714. NGR, r. 94(4)(a). [↑](#footnote-ref-714)
715. NGR, r. 94(4)(b). [↑](#footnote-ref-715)
716. NGR, r. 94(2). [↑](#footnote-ref-716)
717. NGR, r. 94(3). [↑](#footnote-ref-717)
718. NGR, r. 94(4)(a). [↑](#footnote-ref-718)
719. NGR, r. 94(4)(b). [↑](#footnote-ref-719)
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721. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, p. 66 [↑](#footnote-ref-721)
722. Envestra Victorian, Access arrangement information, 30 March 2012, p. 212; Envestra Albury, Access arrangement information, 30 March 2012, p. 192. [↑](#footnote-ref-722)
723. Envestra Victorian, Access arrangement information, 30 March 2012, p. 212; Envestra Albury, Access arrangement information, 30 March 2012, p. 192. [↑](#footnote-ref-723)
724. The CAM was provided to the AER on a confidential basis as part of Envestra's access arrangement proposal. [↑](#footnote-ref-724)
725. Envestra Victorian, Access arrangement information, 30 March 2012, p. 212; Envestra Albury, Access arrangement information, 30 March 2012, p. 192. [↑](#footnote-ref-725)
726. Envestra Victorian, Access arrangement information, 30 March 2012, p. 212; Envestra Albury, Access arrangement information, 30 March 2012, p. 192. [↑](#footnote-ref-726)
727. Envestra Victorian, Access arrangement information, p. 213; Envestra Albury, Access arrangement information, p. 193. [↑](#footnote-ref-727)
728. AER, Draft decision, Envestra Ltd access arrangement proposal for the SA gas network, 1 July 2011–30 June 2016, February 2011, p.206; AER, Draft decision, Envestra Ltd access arrangement proposal for the QLD gas network, 1 July 2011–30 June 2016, February 2011, p.188. [↑](#footnote-ref-728)
729. Envestra Victorian, Access arrangement information, 30 March 2012, p. 214; Envestra Albury, Access arrangement information, 30 March 2012, p. 194. [↑](#footnote-ref-729)
730. Envestra Victorian, Access arrangement information, 30 March 2012, p. 214; Envestra Albury, Access arrangement information, 30 March 2012, p. 194. [↑](#footnote-ref-730)
731. Envestra, Response to AER: information request 1, 11 May 2012. [↑](#footnote-ref-731)
732. Envestra, Response to AER: information request 1, 11 May 2012. [↑](#footnote-ref-732)
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734. AER, Draft decision, Envestra Ltd access arrangement proposal for the SA gas network, 1 July 2011–30 June 2016, February 2011, p.206; AER, Draft decision, Envestra Ltd access arrangement proposal for the QLD gas network, 1 July 2011–30 June 2016, February 2011, p.188. [↑](#footnote-ref-734)
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736. Envestra Victorian, Access arrangement information, 30 March 2012, p. 214; Envestra Albury, Access arrangement information, 30 March 2012, p. 194. [↑](#footnote-ref-736)
737. Envestra Victorian, Access arrangement information, 30 March 2012, p. 214; Envestra Albury, Access arrangement information, 30 March 2012, p. 194. [↑](#footnote-ref-737)
738. Envestra, Response to AER: information request 1 of 4 May 2012, 11 May 2012. [↑](#footnote-ref-738)
739. Domestic customers in the pricing zone of Murray Valley and Albury will experience increases in their annual bills of about $30 and $25 respectively. [↑](#footnote-ref-739)
740. The AER's analysis assumes that consumption occurred evenly across the seasonal periods. [↑](#footnote-ref-740)
741. NGR, r. 94(3)–(4). [↑](#footnote-ref-741)
742. NGR, r. 94(3). [↑](#footnote-ref-742)
743. Envestra Victorian, Access arrangement information, 30 March 2012, p. 228; Envestra Albury, Access arrangement information, 30 March 2012, p. 206. [↑](#footnote-ref-743)
744. Envestra Victorian, Access arrangement information, 30 March 2012, p. 225-236; Envestra Albury, Access arrangement information, 30 March 2012, p. 203-212. [↑](#footnote-ref-744)
745. Envestra Victorian, Access arrangement information, 30 March 2012, p. 226; Envestra Albury, Access arrangement information, 30 March 2012, p. 204. [↑](#footnote-ref-745)
746. Envestra Victorian, Access arrangement proposal, 30 March 2012 p.34; Envestra Albury, Access arrangement proposal, 30 March 2012 p.32. [↑](#footnote-ref-746)
747. CPI means the Consumer Price Index (All Groups Weighted Average for the Eight Capital Cities) as published by the Australian Bureau of Statistics or its successor or, if that Consumer Price Index is not published for any reason; whatever alternative index Envestra determines (with the AER’s approval) from time to time is reasonably equivalent to that Consumer Price Index. [↑](#footnote-ref-747)
748. Envestra Victorian, Access arrangement information, 30 March 2012, p. 230. [↑](#footnote-ref-748)
749. Envestra Victorian, Access arrangement information, 30 March 2012, p. 228; Envestra Albury, Access arrangement information, 30 March 2012, p. 206. [↑](#footnote-ref-749)
750. Envestra Victorian, Access arrangement information, 30 March 2012, p. 233; Envestra Albury, Access arrangement information, 30 March 2012, p. 208. [↑](#footnote-ref-750)
751. Envestra Victorian, Access arrangement proposal, 30 March 2012 p.10; Envestra Albury, Access arrangement proposal, 30 March 2012 p.9. [↑](#footnote-ref-751)
752. Envestra Victorian, Access arrangement information, 30 March 2012, p. 227; Envestra Albury, Access arrangement information, 30 March 2012, p. 205. [↑](#footnote-ref-752)
753. Envestra Victorian, Access arrangement information, 30 March 2012, p. 233–235 and Envestra Victorian, Access arrangement proposal, 30 March 2012 p.10; Envestra Albury, Access arrangement information, 30 March 2012, p. 209–211 and Envestra Albury, Access arrangement proposal, 30 March 2012 p.10. [↑](#footnote-ref-753)
754. Envestra Victorian, Access arrangement information, 30 March 2012, p.235; Envestra Albury, Access arrangement information, 30 March 2012, p. 211. [↑](#footnote-ref-754)
755. Envestra Victorian, Access arrangement information, 30 March 2012, p. 232; Envestra Albury, Access arrangement information, 30 March 2012, p. 208. [↑](#footnote-ref-755)
756. Envestra Victorian, Access arrangement information, 30 March 2012, p. 232; Envestra Albury, Access arrangement information, 30 March 2012, p. 208. [↑](#footnote-ref-756)
757. NGR, r. 92(2). [↑](#footnote-ref-757)
758. NGR, r. 97(1). [↑](#footnote-ref-758)
759. NGR, r. 97(2). [↑](#footnote-ref-759)
760. NGR, r. 97(4). [↑](#footnote-ref-760)
761. NGR, r. 97(3)(a)–(b). [↑](#footnote-ref-761)
762. NGR, r. 97(3)(b). [↑](#footnote-ref-762)
763. NGL, ss. 23 and 24. [↑](#footnote-ref-763)
764. NGR, r. 40(3). [↑](#footnote-ref-764)
765. NGR, rr. 92(2) and 97(3). [↑](#footnote-ref-765)
766. AER, Draft decision, Envestra Ltd access arrangement proposal for the SA gas network, 1 July 2011–30 June 2016, February 2011, p.206; AER, Draft decision, Envestra Ltd access arrangement proposal for the QLD gas network, 1 July 2011–30 June 2016, February 2011, p.188. [↑](#footnote-ref-766)
767. Envestra Victorian, Access arrangement information, 30 March 2012, p.228-229; Envestra Albury, Access arrangement information, 30 March 2012, p. 206-207. [↑](#footnote-ref-767)
768. Envestra Victorian, Access arrangement information, 30 March 2012, p.228-229; Envestra Albury, Access arrangement information, 30 March 2012, p. 206-207. [↑](#footnote-ref-768)
769. Envestra Victorian, Access arrangement information, 30 March 2012, p.228-229; Envestra Albury, Access arrangement information, 30 March 2012, p. 206-207. [↑](#footnote-ref-769)
770. NGL, s. 23 [↑](#footnote-ref-770)
771. Envestra Victorian, Access arrangement information, 30 March 2012, p.228-229; Envestra Albury, Access arrangement information, 30 March 2012, p. 206-207. [↑](#footnote-ref-771)
772. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, p. 2-3 [↑](#footnote-ref-772)
773. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, p. 2-3 [↑](#footnote-ref-773)
774. NGL, s. 24(3)(c). [↑](#footnote-ref-774)
775. Envestra Victorian, Access arrangement information, 30 March 2012, p.229; Envestra Albury, Access arrangement information, 30 March 2012, p. 206. [↑](#footnote-ref-775)
776. AER, Final decision, Jemena gas network access arrangement proposal for the NSW gas network 1 July 2010 to 30 June 2015, June 2012, p.372., [↑](#footnote-ref-776)
777. AER, Draft decision, Victorian distribution network service providers, distribution determination, 2011–2015, June 2010, pp.59–70; AER, Final decision, Victorian distribution network service providers, distribution determination, 2011–2015, June 2010, pp.31–33, 40–57. [↑](#footnote-ref-777)
778. AER, Draft decision, Envestra Ltd access arrangement proposal for the SA gas network, 1 July 2011–30 June 2016, February 2011, p.206; AER, Draft decision, Envestra Ltd access arrangement proposal for the QLD gas network, 1 July 2011–30 June 2016, February 2011, p.188. [↑](#footnote-ref-778)
779. NGR, r. 97(3)(d). [↑](#footnote-ref-779)
780. Envestra Victorian, Access arrangement information, 30 March 2012, p.228; Envestra Albury, Access arrangement information, 30 March 2012, p. 206. [↑](#footnote-ref-780)
781. Envestra Victorian, Access arrangement proposal, 30 March 2012 p.19; Envestra Albury, Access arrangement proposal, 30 March 2012 p.19. [↑](#footnote-ref-781)
782. NGR, r. 97. [↑](#footnote-ref-782)
783. Envestra included a carbon tax tariff factor in its tariff variation formula for the Albury gas distribution network. However, its recent carbon tax pass through application to the AER, Envestra submitted that its Albury distribution network is not covered under the carbon tax pricing legislation as it emits less that 25,000 tonnes of CO2. The AER sought clarification on this matter. In response, Envestra submitted that the inclusion of the carbon tax tariff factor in its tariff variation formula for the Albury gas network was an error. Given that this error was made only in the access arrangement information, there is no requirement on Envestra to amend its access arrangement for the Albury distribution network. [↑](#footnote-ref-783)
784. Envestra Victorian, Access arrangement information, 30 March 2012, p.233; Envestra Albury, Access arrangement information, 30 March 2012, p. 208. [↑](#footnote-ref-784)
785. Envestra Victorian, Access arrangement proposal, 30 March 2012, p. 9; Envestra Albury, Access arrangement proposal, 30 March 2012, p. 9. [↑](#footnote-ref-785)
786. Envestra Victorian, Access arrangement proposal, 30 March 2012 p.9; Envestra Albury, Access arrangement proposal, 30 March 2012 p.9. [↑](#footnote-ref-786)
787. NGR, r. 97(3)(d), [↑](#footnote-ref-787)
788. AER Draft decision: APT Pipeline PTY LTD, Roma to Brisbane Pipeline, April 2012, p. 70-72: AER, Draft decision: N.T. Gas access arrangement, April 2011, p. 166–167;.AER, Draft decision: Envestra

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789. Envestra, Access arrangement information, 30 March 2012, p.230. [↑](#footnote-ref-789)
790. AER, Decision on Envestra - Pass through application - change in taxes event - 2012. This document can be accessed via the link: <http://www.aer.gov.au/node/15351> [↑](#footnote-ref-790)
791. NGR, r. 40(3). [↑](#footnote-ref-791)
792. NGR, r. 100. [↑](#footnote-ref-792)
793. Victorian Electricity Distribution Network Service Provider's Draft Decision, p 716. [↑](#footnote-ref-793)
794. Victorian Electricity Distribution Network Service Provider's Draft Decision, p 716. [↑](#footnote-ref-794)
795. AER Draft decision: APT Pipeline PTY LTD, Roma to Brisbane Pipeline, April 2012, pp. 70-72: AER, Draft decision: N.T. Gas access arrangement, April 2011, pp. 166–167;.AER, Draft decision: Envestra

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     decision: Envestra access arrangement Qld, February 2011); AER, Draft decision: Envestra Ltd: Access

     arrangement proposal for the SA gas network 2011–2016, February 2011, p. 209 (AER, Draft decision:

     Envestra access arrangement SA, February 2011); AER, Draft decision: APT Allgas: Access arrangement

     proposal for the Qld gas network 2011–2016, February 2011, pp. 138–140. [↑](#footnote-ref-795)
796. NGL, ss. 23 and 24. [↑](#footnote-ref-796)
797. Envestra, Access arrangement information, 30 March 2012, p. 100. [↑](#footnote-ref-797)
798. Envestra, Access arrangement information, 30 March 2012, p. 120. [↑](#footnote-ref-798)
799. Envestra Victoria, Access arrangement information, 30 March 2012, p.235 [↑](#footnote-ref-799)
800. NGL, s. 24. [↑](#footnote-ref-800)
801. Application by United Energy Distribution Pty Limited [[2012] ACompT 1](http://www.austlii.edu.au/au/cases/cth/ACompT/2012/1.html) (6 January 2012) [↑](#footnote-ref-801)
802. See Envestra's 2008 access arrangement [↑](#footnote-ref-802)
803. NGR, r. 97(4) [↑](#footnote-ref-803)
804. Envestra, Access arrangement information, 30 March 2012, p. 232; Envestra Albury, Access arrangement information, 30 March 2012, p. 208. [↑](#footnote-ref-804)
805. Envestra, Access arrangement information, 30 March 2012, p. 232; Envestra Albury, Access arrangement information, 30 March 2012, p. 208. [↑](#footnote-ref-805)
806. Envestra, Access arrangement proposal, 30 March 2012, p. 12; Envestra Albury, Access arrangement proposal, 30 March 2012, p. 12. [↑](#footnote-ref-806)
807. AER, Information request 19, 26 June 2012. [↑](#footnote-ref-807)
808. Envestra, Response to the AER's information request 19 of 26 June 2012, 27 June 2012. [↑](#footnote-ref-808)
809. Envestra, Response to the AER's information request 19 of 26 June 2012, 27 June 2012. [↑](#footnote-ref-809)
810. NGR, r. 97(4). [↑](#footnote-ref-810)
811. Envestra proposed 35 business days, which include 20 business days for the AER to review the proposal and 15 business for market participants to prepare for implementation. [↑](#footnote-ref-811)
812. AER, Draft decision, Envestra Ltd access arrangement proposal for the SA gas network, 1 July 2011–30 June 2016, February 2011, p.207; AER, Draft decision, Envestra Ltd access arrangement proposal for the QLD gas network, 1 July 2011–30 June 2016, February 2011, pp.188–189. [↑](#footnote-ref-812)
813. AER, Draft decision, Envestra Ltd access arrangement proposal for the SA gas network, 1 July 2011–30 June 2016, February 2011, p.207; AER, Draft decision, Envestra Ltd access arrangement proposal for the QLD gas network, 1 July 2011–30 June 2016, February 2011, pp.188–189. [↑](#footnote-ref-813)
814. NGR, r. 97(3)(e). [↑](#footnote-ref-814)
815. NGL, s. 189. [↑](#footnote-ref-815)
816. NGL, s. 332. [↑](#footnote-ref-816)
817. Envestra, Access arrangement proposal: Annexure F - General terms and conditions, 30 March 2012. [↑](#footnote-ref-817)
818. Access arrangement for Envestra's Queensland Gas Distribution System 2012 - 2016, Annexure G; Access Arrangement for Envestra's South Australian Gas Distribution System 2013 - 2017, Annexure G. [↑](#footnote-ref-818)
819. Envestra, Access arrangement information, 31 March 2012, p. 238. [↑](#footnote-ref-819)
820. Envestra, Access arrangement information, 31 March 2012, p. 239. [↑](#footnote-ref-820)
821. Envestra, Access arrangement information, 30 March 2012, p. 238. [↑](#footnote-ref-821)
822. NGR, r. 100. [↑](#footnote-ref-822)
823. NGR, r. 40(3). [↑](#footnote-ref-823)
824. NGL., s. 23; NGR, r. 100. [↑](#footnote-ref-824)
825. NGL, ss. 181, 184 & 189. [↑](#footnote-ref-825)
826. The AER considered the Australian Competition Tribunal’s decision in *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12 in considering this issue. [↑](#footnote-ref-826)
827. Premier of Victoria, Press Release, Victorian Government Defers National Energy Retail Law to safeguard consumer protections, 13 June 2012. [↑](#footnote-ref-827)
828. Envestra South Australia, Access Arrangement 2012 - 2016, Annexure G, clauses 5, 6, 7, 8, 23.2 and 23.5. [↑](#footnote-ref-828)
829. Envestra, Access arrangement information, 30 March 2012, p. 239. [↑](#footnote-ref-829)
830. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement, 28 June 2012, p. 2. [↑](#footnote-ref-830)
831. Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement, 28 June 2012, p. 2. [↑](#footnote-ref-831)
832. Part 5 of the National Energy Retail Rules (SA) 2012 and Part 21 of the National Gas Rules, as amended by the National Gas (National Energy Retail Law) Amendment Rules SA 2012, made pursuant to the National Energy Retail Law (South Australia) Act 2012. [↑](#footnote-ref-832)
833. Envestra, Access arrangement information, 30 March 2012, p. 239. [↑](#footnote-ref-833)
834. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement, 29 June 2012, Attachment B. [↑](#footnote-ref-834)
835. Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement, 28 June 2012, p. 2. [↑](#footnote-ref-835)
836. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement, 29 June 2012, Attachment B . [↑](#footnote-ref-836)
837. Envestra, letter dated 20 July 2012. [↑](#footnote-ref-837)
838. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement, 29 June 2012, Attachment B. [↑](#footnote-ref-838)
839. Envestra, Letter dated 20 July 2012. [↑](#footnote-ref-839)
840. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement, 29 June 2012, Attachment B. [↑](#footnote-ref-840)
841. Envestra, Letter dated 20 July 2012. [↑](#footnote-ref-841)
842. AER, Draft Decision - Envestra (SA) Access Arrangement 2011 - 2016, p. 229. [↑](#footnote-ref-842)
843. Envestra (SA), Access arrangement information, 23 March 2011, Attachment 16-1, p. 10. [↑](#footnote-ref-843)
844. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement, 29 June 2012, Attachment B. [↑](#footnote-ref-844)
845. For instance, under clause 22.2 statements of charges can be rectified to correct any error in metering data. [↑](#footnote-ref-845)
846. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-846)
847. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-847)
848. See the discussion in paragraph 3 under "Overselling Capacity". [↑](#footnote-ref-848)
849. See the discussion in paragraph 3 under "Overselling Capacity". [↑](#footnote-ref-849)
850. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B; Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 2. [↑](#footnote-ref-850)
851. Envestra, Letter dated 20 July 2012. [↑](#footnote-ref-851)
852. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-852)
853. Envestra, Letter dated 20 July 2012. [↑](#footnote-ref-853)
854. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-854)
855. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-855)
856. Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 3. [↑](#footnote-ref-856)
857. Envestra, Letter dated 20 July 2012. [↑](#footnote-ref-857)
858. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-858)
859. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-859)
860. Sub-clause 26.1, sub-clause 26.2, sub-clause 28.2. [↑](#footnote-ref-860)
861. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-861)
862. Access Arrangement for Envestra's Queensland Gas Distribution System 2012 - 2016, Annexure G; Access Arrangement for Envestra's South Australian Gas Distribution System 2013 - 2017, Annexure G. [↑](#footnote-ref-862)
863. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-863)
864. Australian Power and Gas, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, p. 1. [↑](#footnote-ref-864)
865. Envestra, Access arrangement information, 30 March 2012, p. 240. [↑](#footnote-ref-865)
866. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-866)
867. Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 3. [↑](#footnote-ref-867)
868. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-868)
869. Envestra, Letter dated 20 July 2012. [↑](#footnote-ref-869)
870. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-870)
871. Origin, Submission to the AER, SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 3. [↑](#footnote-ref-871)
872. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-872)
873. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-873)
874. Origin, Submission to the AER, SP AusNet Envestra and Multinet access arrangement proposals, 28 June 2012, p. 3. [↑](#footnote-ref-874)
875. Multinet, Access arrangement proposal: Part C - Terms and Conditions, 30 March 2012, p. 43; SP AusNet, Access arrangement proposal, Part C - Terms and Conditions, 30 March 2012, p. 41. [↑](#footnote-ref-875)
876. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B; Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 3. [↑](#footnote-ref-876)
877. Australian Power and Gas, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals , 2013–17. [↑](#footnote-ref-877)
878. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-878)
879. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012; Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 4. [↑](#footnote-ref-879)
880. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012. [↑](#footnote-ref-880)
881. NGR, r. 105(2). [↑](#footnote-ref-881)
882. NGR, r. 48(1)(f). [↑](#footnote-ref-882)
883. NGR, r. 105(2). [↑](#footnote-ref-883)
884. NGR, r. 105(4). [↑](#footnote-ref-884)
885. NGR, r. 105(6). [↑](#footnote-ref-885)
886. Envestra, Access arrangement proposal, 30 March 2012, clause 7. [↑](#footnote-ref-886)
887. This model is sometimes referred to as a contract carriage model. [↑](#footnote-ref-887)
888. This model is sometimes referred to as a market carriage model. Australian Energy Market Operator, *Victorian Wholesale Market,* see: <http://www.aemo.com.au/en/Gas/Wholesale-Gas-Markets/Victorian-Wholesale-Market>, accessed 30 July 2012. [↑](#footnote-ref-888)
889. In accordance with the rules in Part 19 of the NGR. [↑](#footnote-ref-889)
890. Rule 105 of the NGR states that: (1) Capacity trading requirements must provide for transfer of capacity: (a)   if the service provider is registered as a participant in a particular gas market – in accordance with rules or Procedures governing the relevant gas market; or (b) if the service provider is not so registered, or the relevant rules or Procedures do not deal with capacity trading – in accordance with this rule. [↑](#footnote-ref-890)
891. NGL, s. 2. [↑](#footnote-ref-891)
892. NGR, r. 103(1)(b). Clause 14.2 of the Regulation Information Notice issued by the AER to Envestra on the 13 February 2012, notified Envestra that its access arrangement proposal must provide details of its queuing arrangements. [↑](#footnote-ref-892)
893. NGR, r. 103(2). [↑](#footnote-ref-893)
894. NGR, r. 104(1). [↑](#footnote-ref-894)
895. NGR, r. 48(1)(g). [↑](#footnote-ref-895)
896. 82 NGR, r. 104(1). [↑](#footnote-ref-896)
897. 83 NGR, r. 104(2). [↑](#footnote-ref-897)
898. 84 Envestra, Access arrangement proposal, 30 March 2012, clause 8.1. [↑](#footnote-ref-898)
899. 85 Envestra states that this is in accordance with rule 83(4) of the NGR. [↑](#footnote-ref-899)
900. 86 Envestra, Access arrangement proposal, 30 March 2012, clause 8.3. [↑](#footnote-ref-900)
901. 87 Envestra, Access arrangement information, 30 March 2012, p. 237. [↑](#footnote-ref-901)
902. 88 Envestra, Access arrangement information, 30 March 2012, p. 237. [↑](#footnote-ref-902)
903. 89 Envestra, Access arrangement information, 30 March 2012, p. 237. [↑](#footnote-ref-903)
904. 90 Envestra, Access arrangement information, 30 March 2012, p. 237. [↑](#footnote-ref-904)
905. 91 Envestra, Access arrangement proposal, 30 March 2012, clause 8.2. [↑](#footnote-ref-905)
906. 92 Envestra, Access arrangement proposal, 30 March 2012, clause 8.2. [↑](#footnote-ref-906)
907. 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. Access arrangement proposal for Envestra's SA gas network 1 July 2011-30 June 2016, draft decision, June 2011, pp. 241–245. [↑](#footnote-ref-907)
908. NGL, s. 23. [↑](#footnote-ref-908)
909. 95 NGL, s. 23. [↑](#footnote-ref-909)
910. NGR, r. 3. [↑](#footnote-ref-910)
911. 97 NGR, r. 48(h). [↑](#footnote-ref-911)
912. 98 NGR, r. 106(1). [↑](#footnote-ref-912)
913. 99 NGR, r. 106. (2). [↑](#footnote-ref-913)
914. Regulation Information Notice issued to Envestra by the AER, 13 February 2012, clause 14.7. [↑](#footnote-ref-914)
915. 101 NGR, rr. 48(1)(h) and 106. [↑](#footnote-ref-915)
916. 102 NGR, r. 50. [↑](#footnote-ref-916)
917. 103 NGR, r. 50(2). [↑](#footnote-ref-917)
918. 104 NGR, r. 50(4). [↑](#footnote-ref-918)
919. 105 Envestra, Access arrangement proposal, October 2010, p. 17. [↑](#footnote-ref-919)