

Access Arrangement draft decision

SPI Networks (Gas) Pty 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 SP AusNet 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 SP AusNet effective from 1 January 2018 to 31 December 2022 inclusive |
| ACCC | Australian Competition and Consumer Commission |
| AER | Australian Energy Regulator |
| access arrangement information | SP AusNet, Access arrangement information, 30 March 2012 |
| access arrangement proposal | SP AusNet, 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 |
| ESC | Essential Services Commission (Victoria) |
| MRP | market risk premium |
| NGL | National Gas Law |
| NGO | National Gas Objective |
| NGR | National Gas Rules |
| opex | operating expenditure |
| PTRM | post tax revenue model |
| RAB | regulatory asset base |
| RFM | roll forward model |
| RPP | revenue pricing principles |
| SP AusNet | SPI Networks (Gas) Pty Ltd (ACN 086 015 036) |
| WACC | weighted average cost of capital |

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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 SP AusNet to offer to provide by means of the pipeline.[[2]](#footnote-2)
  1. AER draft decision

The AER considers that SP AusNet has met its obligations to describe the pipeline services and specify the reference services that it proposes to offer.

The AER does not approve SP AusNet's proposed ancillary services. The AER requires SP AusNet to make the amendment set out in Revision 1.1.

* 1. SP AusNet's proposal

SP AusNet’s access arrangement proposal describes the type and nature of pipeline services to be provided by its Victorian gas distribution network. This includes reference services (services that are likely to be sought by a significant part of the market) and non-reference services.

SP AusNet proposes to offer three references services, which are described as Haulage Reference Services. The Haulage Reference Services are differentiated on the basis of the tariff assigned to the relevant distribution supply point. SP AusNet also proposes to offer three Ancillary Reference Services.[[3]](#footnote-3)

Further, SP AusNet proposes to offer Distribution Services other than Reference Services. These services are not reference services. The AER notes that SP AusNet's Tariff D and Tariff M connections are not reference services.[[4]](#footnote-4)

* 1. Assessment approach

In its access arrangement proposal SP AusNet is required to specify all reference services.[[5]](#footnote-5) A reference service is a pipeline service that is likely to be sought by a significant part of the market.[[6]](#footnote-6) 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.[[7]](#footnote-7)
* A reference service must also be consistent with the NGO.[[8]](#footnote-8)

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.[[9]](#footnote-9)
  1. Reasons for decision

Identification of the pipeline services

The AER considers that SP AusNet has met its obligations pursuant to r. 48(1)(a) of the NGR.

Clause 5.1 of SP AusNet’s access arrangement proposal states that it applies to SP AusNet's distribution system, further details of which can be inspected at the its website: [www.sp-ausnet.com.au](http://www.sp-ausnet.com.au). SP AusNet's access arrangement information also contains information about SP AusNet's distribution system.

Description of the pipeline services

The AER considers that the pipeline services that SP AusNet proposes to provide are adequately described.[[10]](#footnote-10) SP AusNet has described the pipeline services being offered as reference services and ancillary reference services in clause 5 and schedule 1 of its access arrangement proposal.

Specification of the reference service

Clause 5.2.1 of SP AusNet’s access arrangement proposal states that it will make haulage reference services and ancillary reference services available to users or prospective users of the distribution system. This is in accordance with the reference tariff policy set out in clause 5.3 of the proposal.

Haulage reference services are defined in schedule 2 and include the injection, conveyance and withdrawal of gas at transfer points and distribution supply points (as applicable).

Schedule 1 of SP AusNet’s access arrangement proposal defines ancillary reference services to include a disconnection service, a reconnection service and a special meter reading service.

Reference services

SP AusNet’s access arrangement proposal states that the reference services provided by SP AusNet as described above are likely to be sought by a significant part of the market.[[11]](#footnote-11)

The AER considers that a significant part of the market is likely to seek services that provide for the injection, conveyance and withdrawal of gas. Accordingly, the AER is satisfied that the reference services proposed by SP AusNet are likely to be sought by a significant part of the market. This means they must be covered by the access arrangement.

Ancillary reference services

The AER considers that the proposed ancillary reference services are likely to be sought by a significant part of the market. Subject to the removal of one service, the ancillary reference services proposed by SP AusNet are largely consistent with those in the current access arrangement.

For the reasons set out below, the AER does not accept SP AusNet’s proposal to remove the on-site meter and gas installation test from its list of ancillary reference services in its access arrangement proposal.

SP AusNet proposes to remove its Meter and Gas Installation Test from its list of ancillary reference services. The Meter and Gas Installation Test is an on-site test to check the accuracy of a meter and the soundness of a gas installation in order to determine whether the meter is accurately measuring the quantity of gas delivered. SP AusNet states that this service has been removed from its list of ancillary reference services because, based on historical demands, it is not likely to be sought by a significant part of the market in the forthcoming regulatory period. SP AusNet also states that it is more cost effective to replace the meter and perform the test off-site. SP AusNet therefore proposes that the service be classed as a non-reference service and charged on a recoverable works basis.[[12]](#footnote-12)

The AER considers that a significant part of the market is likely to seek a test to check the accuracy of a meter and the soundness of a gas installation. The AER considers that while a meter test may be conducted off-site, a test of the soundness of the installation can only be conducted on-site. The AER considers that this is an important test, both from the perspective of safety and invoice accuracy. Accordingly, the AER considers that a significant part of the market is likely to seek such a service.

The AER also considers that the performance of this service would be consistent with the NGO. Such a test ensures safe connections and increases efficiency by detecting and reducing gas leaks. This will also ensure that gas use is correctly meteredthereeby better reflecting the costs of providing the gas services. This will promote the efficient operation and use of gas services, aspects of the NGO.

Finally, the AER notes that both Envestra and Multinet have proposed to provide an equivalent ancillary service.[[13]](#footnote-13)

The AER received submissions from AGL and Origin on ancillary reference services.[[14]](#footnote-14) Concerns in the submissions were general in nature. The submissions did not identify any specific services currently provided as pipeline services with the exception of reference services that should be included as an ancillary reference service.

AGL’s submission stated that there did not appear to be any logical reason for 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 its view as to which category such a service should fall within.[[15]](#footnote-15) 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’s 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.[[16]](#footnote-16)

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.

Origin also submitted that the definitions of ancillary and excluded (negotiated) services are not consistent across the three distributor 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.[[17]](#footnote-17) 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 SP AusNet's access arrangement proposal does not extend to such services.

SP AusNet stated that it will provide pipeline services other than reference services as agreed or otherwise in accordance with regulatory instruments.[[18]](#footnote-18) These services include Tariff D Connection and Tariff M Connection.[[19]](#footnote-19) Tariff D and M connection services provide for the establishment and maintenance of a physical link between the distribution pipeline and a customer's premises. Tariff M and D are described in SP AusNet's access arrangement information as applying to customers who:

* have previously been tariff V customers but should be using more than 10 000 gigajoules in a 12 month period or 10 gigajoules in an hour; or
* should be using or is expecting to use more than 10 000 gigajoules in a 12 month period or 10 gigajoules in an hour.[[20]](#footnote-20)
* The AER did not receive any submissions that address whether these services are likely to be sought by a significant part of the market.

An access arrangement is required to contain Pipeline Services that are Reference Services.[[21]](#footnote-21) 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 (pipeline services other than reference 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 a service provider, the service provider threatened to withdraw its services unless AGL signed an excluded services agreement.

AGL claims 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.[[22]](#footnote-22)

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 reference 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 proposes to 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 1.1: Amend schedule 1 of the access arrangement proposal as follows:

Include the following words to the list of ancillary reference service:

‘On-site meter and gas installation test: on site testing to check the accuracy of a Meter and the soundness of a Gas Installation, in order to determine whether the Meter is accurately measuring the Quantity of Gas delivered.’

1. Capital base

The capital base roll forward accounts for the value of SP AusNet's regulated assets over the access arrangement period. The opening capital base value for a regulatory year is rolled forward by indexing it for inflation, adding any conforming capex, and subtracting depreciation and other possible factors (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 SP AusNet's opening capital base as at   
1 January 2013 for the 2013–17 access arrangement period. The AER is also required to make a decision on SP AusNet's projected capital base for the 2013–17 access arrangement period. This attachment presents the AER's draft decision on these matters.

* 1. Draft decision

The AER does not approve SP AusNet's proposed opening capital base of $1292.6 million as at 1 January 2013 because it considers that some of SP AusNet's inputs into the capital base roll forward model (RFM) do not comply with the NGR.[[23]](#footnote-23) These include:

* SP AusNet's proposed indexation of the capital base
* SP AusNet's partial application of the ESC's capex incentive scheme for capex in 2012
* minor amendments to account for movements in provisions and consistency with historical regulatory accounts.

After adjusting these inputs, the AER has determined an opening capital base of $1261.6 million ($nominal) as at 1 January 2013, which is $31 million less than that proposed by SP AusNet. summarises the AER's draft decision on the roll forward of SP AusNet's capital base during the 2008–12 access arrangement period.

The AER approves some aspects of SP AusNet'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.
  + - * 1. AER's draft decision on SP AusNet's capital base roll forward for the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2008 | 2009 | 2010 | 2011 | 2012 |
| Opening capital base | 1153.7 | 1177.1 | 1198.2 | 1217.1 | 1245.2 |
| Capex | 75.3 | 76.0 | 76.8 | 85.8 | 75.6a |
| Less: customer contributions | 4.1 | 3.4 | 3.6 | 3.6 | 4.0 |
| Less: disposals | 0.4 | 0.2 | 0.1 | – | – |
| Less: depreciation | 47.4 | 51.3 | 54.0 | 54.1 | 55.2 |
| Closing capital base | 1177.1 | 1198.2 | 1217.1 | 1245.2 | 1261.6 |
| Opening capital base at 1 January 2013 |  |  |  |  | 1261.6 |

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.

Based on the approved opening capital base and the AER's draft decisions on forecast capex, depreciation, and inflation, the AER has determined a projected closing capital base of $1587.8 million ($nominal) as at 31 December 2017. sets out the projected roll forward of the capital base during the 2013–17 access arrangement period.

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Opening capital base | 1,261.6 | 1,339.8 | 1,413.7 | 1,478.6 | 1,533.4 |
| Net capex | 95.0 | 94.9 | 90.5 | 83.7 | 87.4 |
| Less: depreciation | 48.4 | 54.6 | 60.9 | 66.0 | 71.3 |
| Indexation | 31.5 | 33.5 | 35.3 | 37.0 | 38.3 |
| Closing capital base | 1,339.8 | 1,413.7 | 1,478.6 | 1,533.4 | 1,587.8 |

Source: AER analysis.

* 1. SP AusNet's proposal

SP AusNet proposed adopting an opening capital base as at 1 January 2008 of $966.5 million ($2006).[[24]](#footnote-24) This included a reduction of $3.6 million ($2006) from the previous access arrangement review to reflect the difference between the ESC's approved capex for 2007 and actual capex for 2007.

Based on the opening capital base as at 1 January 2008 and the roll forward of the capital base in the 2008–12 access arrangement period, SP AusNet proposed an opening capital base of $1292.6 million as at 1 January 2013. This is shown in .

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2008 | 2009 | 2010 | 2011 | 2012 |
| Opening capital base | 1153.9 | 1177.4 | 1197.9 | 1216.8 | 1245.0 |
| Capex | 75.4 | 75.5 | 76.7 | 85.8 | 90.9 |
| Less: customer contributions | 4.1 | 3.4 | 3.6 | 3.6 | 4.0 |
| Less: disposals | 0.4 | 0.2 | 0.1 | – | – |
| Less: depreciation | 47.4 | 51.3 | 54.0 | 54.1 | 55.2 |
| Closing capital base | 1177.4 | 1197.9 | 1216.8 | 1245.0 | 1276.7 |
| Six months CPI adjustment |  |  |  |  | 15.9 |
| Opening capital base at 1 January 2013 |  |  |  |  | 1292.6 |

Source: SP AusNet, Access arrangement information, March 2012, p. 167.

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

SP AusNet indicated it has incurred net capex of $384.9 million ($2012) in the 2008–12 access arrangement period.[[25]](#footnote-25) This amount included actual capex from 2008–11, and a mix of actual and benchmark capex for 2012 to be consistent with the ESC's capex incentive scheme. Specifically, SP AusNet used the ESC's 2012 benchmark capex adjusted for actual growth for mains replacement and meter replacement programs. However, SP AusNet did not apply the ESC's approach for some of its capex. Specifically, SP AusNet provided revised estimates of augmentation and ICT capex in 2012.

SP AusNet proposed that its capex amounts comply with the relevant NGR requirements and should be included in the opening capital base for the 2008–12 access arrangement period as set out in . The capex proposed under each category driver is discussed in more detail in attachment 3.

* + - * 1. SP AusNet's proposed conforming capital expenditure for 2007 and the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
| Transmission pipelines | – | – | –0.1 | – | –0.5 | 3.1 | 2.5 |
| Distribution pipelines | 25.9 | 29.2 | 24.6 | 31.8 | 39.2 | 39.7 | 190.3 |
| Service pipes | 14.6 | 26.7 | 27.0 | 21.9 | 22.2 | 15.2 | 127.7 |
| Cathodic protection | 0.1 | 0.2 | 0.6 | – | 0.8 | 0.0 | 1.8 |
| Supply regulators/Valve stations | 2.1 | 2.0 | 1.4 | 0.4 | 1.2 | 1.3 | 8.4 |
| Meters | 8.3 | 10.8 | 5.9 | 7.4 | 7.5 | 9.6 | 49.6 |
| SCADA and remote control | 0.5 | – | 1.6 | 0.8 | 0.8 | 1.6 | 5.3 |
| Land and building | – | – | – | – | – | – | – |
| Other - IT | 2.4 | 1.6 | 10.7 | 10.2 | 10.5 | 16.0 | 51.3 |
| Other - non IT | 1.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 3.2 |
| Total net capex | 55.3 | 70.9 | 71.9 | 72.9 | 82.2 | 86.9 | 440.1 |

Source: SP AusNet, Roll forward model, March 2012.

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

SP AusNet proposed to roll forward its capital base in real 2006 dollar terms, and then apply a CPI adjustment to determine the opening capital base as at 1 January 2013. Specifically, SP AusNet 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 determined the 6.5 years of actual inflation based on:

* six years of inflation using annual changes in September–September CPI[[26]](#footnote-26)
* an additional half year by annualising six months of an estimated 2.5 per cent of annual inflation to arrive at an opening capital base as at 1 January 2013.[[27]](#footnote-27)

SP AusNet proposed that applying six years of CPI to the closing capital base for 2012, calculated in real 2006 dollars labelled ‘1 July 2006’, implied the closing capital base for 2012 was valued as at 1 July 2012. It stated that an additional six months of inflation was therefore required to bring the capital base to a value as at 1 January 2013.

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

SP AusNet proposed to depreciate its capital base 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.[[28]](#footnote-28)

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

SP AusNet proposed a projected closing capital base as at 31 December 2017 of $1722.4 million ($nominal). The projected roll forward of the capital base during the 2013–17 access arrangement period is shown in . SP AusNet has included in its capital base projection:

* forecast inflation of 2.51 per cent per annum[[29]](#footnote-29)
* forecast straight-line depreciation, which is discussed in more detail in attachment 5. SP AusNet proposed to use this forecast straight-line depreciation to determine the roll forward of the opening capital base at the next access arrangement review for the 2018–22 access arrangement period.[[30]](#footnote-30)
  + - * 1. SP AusNet's proposed projected capital base roll forward during the 2013–17 access arrangement period ($million, nominal)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Opening capital base | 1296.2 | 1375.2 | 1456.7 | 1548.1 | 1629.8 |
| Net capex | 110.1 | 112.7 | 119.5 | 111.8 | 123.5 |
| Less: depreciation | 27.5 | 31.2 | 28.1 | 30.1 | 31.0 |
| Closing capital base | 1375.2 | 1256.7 | 1548.1 | 1629.8 | 1722.4 |

Source: SP AusNet, Access arrangement information, March 2012, p. 170.

* 1. Assessment approach

In assessing SP AusNet's proposal, the AER is required to consider the transitional provisions of the NGR. This is because SP AusNet's access arrangement for the 2008–12 access arrangement period was 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 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 SP AusNet’s projected capital base is consistent with that adopted by the AER in previous gas decisions made 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 making 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[[35]](#footnote-35)
* 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:[[36]](#footnote-36)
* 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 of the roll forward each year for forecast inflation.
  1. Reasons for draft decision

The AER considers SP AusNet's proposed inputs into the capital base roll forward overstate the value of the opening capital base at 1 January 2013 and consequently the projected closing capital base 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:

* SP AusNet'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 base as at 1 January 2013.
* The ESC's capex incentive scheme should apply in full to 2012 capex whereas SP AusNet has only partially applied the ESC's capex incentive scheme for updating 2012 capex.
* Conforming capex should not include movements in provisions. This is because the capex amounts rolled into the capital base should reflect actual expenditures in the   
  2008–12 access arrangement period and not capitalised amounts set aside for future expenditures.
* SP AusNet's initial conforming net capex amounts were for some years inconsistent with its audited historical regulatory accounts.[[37]](#footnote-37)
* SP AusNet's proposed forecast capex and depreciation inputs used to roll forward the projected capital base 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).

The AER has also made other minor amendments to SP AusNet's capital base roll forward, 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 an opening capital base of $1153.7 million ($2012) as at 1 January 2008 for SP AusNet. This amount includes the AER's adjustment to the ESC's approved opening capital base for the difference between forecast and actual capex for 2007. The AER largely accepts SP AusNet's proposed adjustments to the opening capital base to reflect actual capex for 2007. However, the AER has made minor amendments to account for movements in capitalised provisions in 2007. The AER considers these movements in provisions do not meet the requirements of conforming capex under the NGR.[[38]](#footnote-38) This is because the expenditures have not yet been incurred (see section 2.4.2) consistent with the requirements under the NGR.[[39]](#footnote-39)

* + 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 base as at 1 January 2013, the AER assessed whether SP AusNet's proposed capex amounts for the 2008–12 access arrangement are properly accounted for in the capital base roll forward.

The AER accepts that SP AusNet'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,[[40]](#footnote-40) except for the following:[[41]](#footnote-41)

* adjustments to 2012 capex—the AER has replaced SP AusNet's mix of actual and 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[[42]](#footnote-42)
* reversals of movements in capitalised provisions so the capex amounts only reflect actual expenditure during the 2008–12 access arrangement period
* minor reconciliation differences between SP AusNet's proposal and SP AusNet's audited regulatory accounts.

In total, these amendments result in a reduction of $15 million or 3 per cent of SP AusNet's proposed capex amounts for the 2008–12 access arrangement period. The AER's draft decision on conforming net capex amounts as used in the capital base roll forward are set out in Table 2.6.

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

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Asset class | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
| Transmission pipelines | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.6 | 0.8 |
| Distribution pipelines | 25.0 | 28.6 | 23.8 | 31.3 | 38.1 | 32.0 | 178.8 |
| Service pipes | 14.7 | 26.8 | 27.6 | 22.4 | 22.7 | 20.6 | 134.8 |
| Cathodic protection | 0.1 | 0.2 | 0.6 | 0.0 | 0.8 | 0.7 | 2.4 |
| Supply regulators/Valve stations | 2.1 | 2.0 | 1.4 | 0.4 | 1.2 | 0.4 | 7.5 |
| Meters | 9.0 | 11.3 | 6.3 | 7.5 | 7.5 | 11.6 | 53.1 |
| SCADA and remote control | 0.5 | 0.0 | 1.6 | 0.8 | 0.8 | 0.4 | 4.1 |
| Land and building | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other - IT | 2.4 | 1.6 | 10.7 | 10.2 | 10.5 | 5.2 | 40.6 |
| Other - Non IT | 1.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.2 | 3.0 |
| Total net capex | 55.1 | 70.8 | 72.4 | 73.0 | 82.1 | 71.6 | 425.0 |

Source: AER analysis.

Note: Totals may not add due to rounding.

Adjustments to 2012 capex

The AER does not approve SP AusNet'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.[[43]](#footnote-43) 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. This approach is specified in SP AusNet's 2008–2012 access arrangement.[[44]](#footnote-44) 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:[[45]](#footnote-45)

* 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.

SP AusNet has only partially adhered to the ESC's approach for final year capex in an access arrangement period. SP AusNet has applied this approach to some of its 2012 capex categories, but has proposed new estimates of actual 2012 capex for the capex categories of augmentation and information and communication technology (ICT). 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 SP AusNet'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 SP AusNet 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 2012 ($million, 2012)

|  |  |  |  |
| --- | --- | --- | --- |
| Asset class | Allocated ESC benchmarka | Benchmark adjustment | AER approved  2012 gross capex |
| Transmission pipelines | 0.6 | – | 0.6 |
| Distribution pipelines | 33.7 | 2.3 | 36.0 |
| Service pipes | 20.6 | – | 20.6 |
| Cathodic protection | 0.7 | – | 0.7 |
| Supply regulators/Valve stations | 0.4 | – | 0.4 |
| Meters | 12.2 | –0.7 | 11.6 |
| SCADA and remote control | 0.4 | – | 0.4 |
| Land and building | – | – | – |
| Other - IT | 5.2 | – | 5.2 |
| Other - Non IT | 0.2 | – | 0.2 |
| Total gross capex | 74.0 | 1.6 | 75.6 |

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. However, SP AusNet has disaggregated its asset classes since that previous access arrangement review. The AER has therefore allocated the total values for 2012 capex to SP AusNet's disaggregated asset classes using the approved asset class proportions for 2011 capex.

The AER's draft decision results in a reduction to SP AusNet's proposed opening capital base as at 1 January 2013 of approximately $15.3 million ($nominal). However, this value will be updated for actual 2012 capex at the time of the next access arrangement review. SP AusNet 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:[[46]](#footnote-46)

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.[[47]](#footnote-47) 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.

Reversal of movements in provisions

The AER does not approve the inclusion of movements in capitalised provisions as part of SP AusNet's proposed 2007–11 actual capex. The AER considers these amounts do not meet the requirements of the NGR, since SP AusNet has not yet incurred the expenses to which the provisions relate.[[48]](#footnote-48) For 2012 these actual movements in provisions are not yet available and will be reversed from actual 2012 capex at the next access arrangement review. The AER considers that capitalised expenses should only be recognised as capex when they are paid out (incurred). The AER's amendments are set out in table 2.8. These amendments increase SP AusNet's capex for rolling into the capital base by approximately $0.3 million ($2012).

* + - * 1. AER's reversal of movements in capitalised provisions ($ million, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Asset class | 2007 | 2008 | 2009 | 2010 | 2011 |
| Transmission pipelines | – | – | – | – | – |
| Distribution pipelines | –0.08 | –0.02 | 0.15 | 0.04 | –0.02 |
| Service pipes | –0.04 | –0.02 | 0.16 | 0.02 | –0.01 |
| Cathodic protection | – | – | – | – | – |
| Supply regulators/Valve stations | –0.01 | – | 0.01 | – | – |
| Meters | –0.03 | –0.01 | 0.04 | 0.01 | – |
| SCADA and remote control | – | – | 0.01 | – | – |
| Land and building | – | – | – | – | – |
| Other - IT | –0.01 | – | 0.06 | 0.01 | – |
| Other - Non IT | –0.04 | – | – | – | – |
| Total | –0.17 | –0.05 | 0.43 | 0.09 | –0.04 |

Source: AER analysis.

Note: Totals may not add due to rounding.

Movements in provision accounts are capitalised cash flows that SP AusNet has set aside for paying future liabilities. The timing and exact amount of these liabilities are usually uncertain. SP AusNet has not yet paid out the cash as accounted for, but has set aside cash to prepare for having to make payments in the future. The amounts actually paid out can be identified using the total movements between balances of provision accounts. If the closing balance is higher than the opening balance, more money has been set aside in that year than paid out. The opposite occurs when the opening balance is higher than the closing balance.

The AER has reversed the value of movements in capitalised provision accounts from SP AusNet's 2007–11 capex amounts to reflect actual cash flows net of movements in provisions. These reversals could be either positive or negative, depending on whether provision accounts are paid into or are paid out from within a year.

The AER required a detailed breakdown of movements in provisions as part of the RIN issued to SP AusNet. SP AusNet provided this information, including annual movements in capitalised provisions. However, these annual movements in capitalised provisions were allocated to capex in total, and not to specific asset classes. Accordingly, the AER sought from SP AusNet a breakdown of movements in provision by asset class. SP AusNet responded that its reporting systems could not provide this breakdown.[[49]](#footnote-49) The AER has therefore allocated its reversal of movements by:

* determining the total movement in capitalised provisions for a regulatory year
* allocating the total annual movement to individual asset classes by its proportion of total capex in that year.

Reconciliation with regulatory accounts

The AER has made several minor amendments to SP AusNet's proposed capex for the 2008–12 access arrangement period to correct discrepancies with historical regulatory accounts. The AER queried these discrepancies with SP AusNet. SP AusNet submitted a revised RFM to correct for the reconciliation differences.[[50]](#footnote-50) These amendments reduce SP AusNet's opening capital base as at 1 January 2013 by approximately $0.2 million, and affect the allocation of disposals and customer contributions between asset classes.

* + 1. Indexation of the capital base

The AER does not approve SP AusNet's total proposed indexation of the capital base because it will over compensate SP AusNet 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 SP AusNet'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 SP AusNet’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 SP AusNet's proposal. This indexation of the capital base is consistent with the AER’s standard approach. This will result in a reduction to SP AusNet's proposed opening capital base as at 1 January 2013 of approximately $16 million, or 1 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 SP AusNet. SP AusNet has recognised this by proposing to apply inflation in its capital base roll forward. Under SP AusNet’s fixed principle 7.2(3)(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 over the access arrangement period’.[[51]](#footnote-51) However, it does not specify how this CPI should be calculated. Under the NGR, the AER must take this fixed principle into account.[[52]](#footnote-52) 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, SP AusNet’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.[[53]](#footnote-53) 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.[[54]](#footnote-54)

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, SP AusNet’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 2.2.

* + - 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.[[55]](#footnote-55) 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 SP AusNet's proposal to roll forward the capital base 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 base is consistent with the AER's standard approach to depreciation for gas distribution service providers.[[56]](#footnote-56)

Under the NGR, the AER must subtract from the capital base depreciation calculated in accordance with the relevant access arrangement.[[57]](#footnote-57) In its previous access arrangement review, the ESC calculated a benchmark depreciation allowance for SP AusNet, based on its forecast capex allowance over the 2008–12 access arrangement period.[[58]](#footnote-58) The ESC had also previously used forecast depreciation to determine the opening capital base. The AER therefore accepts that SP AusNet's proposed approach is consistent with the relevant provisions in the 2008–12 access arrangement.

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

The AER’s forecast of SP AusNet’s projected capital base at 31 December 2017 is $1587.8 million ($nominal), a reduction of $134.6 million (nominal) or 7.8 per cent from SP AusNet's proposal. This accords with the AER's draft decision on the inputs to the determination of the projected capital base. The AER has amended the following inputs:

* Reduced SP AusNet's opening capital base as at 1 January 2013 to $1261.6 million or by 2 per cent to reflect the changes required in this attachment.
* Reduced SP AusNet's proposed forecast net capex allowance by $126.0 million ($nominal) or 21.8 per cent. The AER's detailed assessment of the proposed forecast capex allowance is set out in attachment 3.
* Reduced SP AusNet's proposed forecast depreciation allowance by $22.3 million ($nominal) or 15.1 per cent. The AER's assessment of the proposed forecast depreciation is set out in attachment 5.
* Updated forecast inflation of 2.50 per cent per annum for the 2013–17 access arrangement period. While the AER accepts SP AusNet's proposed approach to estimate forecast inflation, the AER has updated the forecast for this draft decision. The AER's assessment of SP AusNet's proposed forecast inflation is set out in attachment 4.

The capital base at the commencement of the 2018–22 access arrangement period will be subject to adjustments consistent with the NGR.[[59]](#footnote-59) 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.

The AER accepts SP AusNet's proposal to use forecast regulatory depreciation approved in the final decision for the 2013–17 access arrangement period to establish SP AusNet’s opening capital base as at 1 January 2018.[[60]](#footnote-60) The AER approved such an approach in the decisions for Jemena Gas Networks (JGN), APT Allgas, and Envestra networks.[[61]](#footnote-61) This approach is also consistent with the approach outlined in the AER’s Access Arrangement Guideline.[[62]](#footnote-62)

* 1. Revisions

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

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

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

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 in Table 2.6.

1. Capital expenditure

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

* 1. Draft decision

Conforming capital expenditure for 2007–11

The AER approves SP AusNet's proposed $354.7 million ($2012) total net capex for 2007–11 as conforming capex under r. 79(1) of the NGR. Table 3.1 shows approved capex for 2007–11 by category.

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

* + - * 1. AER approved capex by category over 2007–12 ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Category | 2007 | 2008 | 2009 | 2010 | 2011 | 2012(a) |
| Mains replacement | 6.9 | 9.7 | 8.8 | 11.6 | 12.5 | 15.5 |
| Residential connections | 28.5 | 34.3 | 35.1 | 36.5 | 35.7 | 30.1 |
| Commercial/industrial connections | 6.7 | 6.1 | 3.2 | 2.8 | 5.5 | 5.5 |
| Residential meter replacement | 2.6 | 4.5 | 1.1 | 1.4 | 1.6 | 4.0 |
| Commercial/industrial meter replacement | 0.4 | 0.5 | 0.2 | 0.1 | 0.4 | 1.1 |
| Augmentation | 2.7 | 2.8 | 1.0 | 0.6 | 3.6 | 1.3 |
| IT | 2.4 | 1.9 | 10.4 | 9.9 | 10.0 | 4.6 |
| SCADA | 0.5 | 0.0 | 1.4 | 0.7 | 0.7 | 0.4 |
| Other | 1.4 | 3.1 | 3.3 | 2.5 | 3.9 | 4.2 |
| Overheads | 7.5 | 12.5 | 11.1 | 10.6 | 11.9 | 8.9 |
| GROSS TOTAL | 59.5 | 75.4 | 75.5 | 76.7 | 85.8 | 75.6 |
| Adjustments for movements in provisions(b) | –0.2 | –0.0 | 0.4 | 0.1 | –0.0 |  |
| ADJUSTED Gross TOTAL | 59.3 | 75.3 | 76.0 | 76.8 | 85.8 | 75.6 |
| Customer contributions | 3.7 | 4.1 | 3.4 | 3.6 | 3.6 | 4.0 |
| Government contributions |  |  |  |  |  |  |
| NET TOTAL | 55.6 | 71.3 | 72.6 | 73.2 | 82.1 | 71.6 |

Source: AER analysis.

Notes: (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.

(b)The adjustment for movements in provisions is considered in section 2.

Conforming capital expenditure for the 2013–17 access arrangement period

The AER approves $411.0 million ($2012) of SP AusNet's proposed $528.5 million ($2012) total net capex for the 2013–17 access arrangement period.[[63]](#footnote-63)

Table 3.2 shows approved capex over the 2013–17 access arrangement period by category.

* + - * 1. AER approved capital expenditure by category over the 2013–17 access arrangement period ($million, 2012)(a)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 16.4 | 15.1 | 13.4 | 11.3 | 12.4 |
| Residential connections | 33.2 | 33.2 | 33.1 | 32.8 | 32.8 |
| Commercial/ industrial connections | 3.0 | 3.1 | 3.1 | 3.1 | 3.2 |
| Residential meter replacement | 4.8 | 5.1 | 4.5 | 4.3 | 4.2 |
| Commercial/ industrial meter replacement | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 |
| Augmentation | 6.1 | 5.9 | 6.8 | 1.0 | 2.2 |
| IT | 13.6 | 13.0 | 6.9 | 7.5 | 7.6 |
| SCADA | 0.9 | 0.8 | 0.9 | 0.8 | 0.8 |
| Other | 2.5 | 4.2 | 4.8 | 4.7 | 3.7 |
| Gas Extensions-NGEP | 1.5 | 1.0 | 0.1 | 0.1 | 0.0 |
| Capital overheads | 11.6 | 11.6 | 11.6 | 11.6 | 11.6 |
| Total gross capital expenditure | 94.5 | 94.0 | 86.2 | 78.3 | 79.7 |
| Customer contributions | 2.8 | 2.9 | 3.0 | 3.1 | 3.1 |
| Government contributions | 1.0 | 2.7 | 1.0 | 1.0 | 1.1 |
| Total net capital expenditure | 90.7 | 88.4 | 82.2 | 74.2 | 75.5 |

Source: AER analysis.

Notes: (a) AER approved capital expenditure includes AER material and labour escalation adjustments.

Table 1.3 shows SP AusNet's proposed capex compared with the AER's approved allowance for each category.

* + - * 1. Comparison of AER approved and SP AusNet's proposed capital expenditure over the 2013–17 access arrangement period ($million, 2012)(a)

|  |  |  |  |
| --- | --- | --- | --- |
| Category | SP AusNet proposed | AER approved | Difference |
| Mains replacement | 141.1 | 68.6 | -51.4% |
| Residential connections | 182.7 | 165.1 | -9.6% |
| Commercial/industrial connections | 19.7 | 15.6 | -20.7% |
| Residential meter replacement | 23.7 | 22.8 | -3.6% |
| Commercial/industrial meter replacement | 5.2 | 5.0 | -4.3% |
| Augmentation | 23.1 | 22.0 | -4.9% |
| IT | 55.3 | 48.6 | -12.1% |
| SCADA | 4.5 | 4.2 | -5.0% |
| Other | 24.4 | 19.9 | -18.6% |
| Gas Extensions-NGEP | 2.8 | 2.8 | 0.0% |
| Capital overheads | 68.2 | 57.9 | -15.1% |
| Total gross capital expenditure | 550.8 | 432.6 | -21.4% |
| Customer contributions | 15.5 | 14.9 | -3.6% |
| Government contributions | 6.8 | 6.8 | 0.0% |
| Total net capital expenditure | 528.5 | 411.0 | -22.2% |

Source: AER analysis, SP AusNet.

Notes: (a) AER approved capital expenditure includes AER material and labour escalation adjustments.

(b)The SP AusNet proposed total presented in this table does not equal the amount in SP AusNet's Access Arrangement Information due to revisions in response to information requests received by the AER.

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 on the basis that with the reduction in volumes the lowest cost areas will be delivered first.
* The miscellaneous mains replacement program expenditure is reduced after adjusting for inconsistencies in SP AusNet's method for forecasting the 2013–17 volumes and unit rates for the program.
* The medium pressure mains replacement program is not approved as it is not necessary nor efficient and prudent to proactively replace medium pressure distribution mains in the 2013–2017 access arrangement period.
* Some minor specific mains replacement programs are not approved as is not necessary nor efficient and prudent to proactively replace these types of distribution mains.
* The upwards trend in service renewal volumes within the reactive mains service replacement program is reduced to an annual average of the 2008–11 actual volumes on the basis that service renewals are expected to remain around the current average amounts.
* For Tariff V residential and commercial/industrial connections, the abolishment volume is reduced from an upward trend to an annual average of the 2008–11 actual volumes reflecting that abolishments are not expected to vary significantly from the current levels. The contingency on Tariff V residential and commercial/industrial connections unit rates are removed.
* For IT the proposed contingency allowance is reduced, the labour component of several IT programs is reduced to industry standard amounts and the NECF-related costs are removed as NECF is not currently a regulatory obligation.
* Certain projects in "Other non-demand" capex are not approved as these projects would not be undertaken by a prudent and efficient service provider.
* Overheads are reduced to the annual average of the overheads expenditure for 2008-11 to reflect that the scale of SP AusNet's business is not expected to change significantly from the 2008-12 access arrangement period and so overheads should not change significantly.
* Material and labour cost escalation is reduced.
  1. SP AusNet's Proposal

2007–11 period

SP AusNet proposed net total capex of $354.5 million ($2012) for 2007–11. This is 3.6 per cent below the benchmark allowance approved by the ESC.

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2007 | 2008 | 2009 | 2010 | 2011 | 2012(a) |
| Mains replacement | 6.9 | 9.7 | 8.8 | 11.6 | 12.5 | 16.6 |
| Residential connections | 28.5 | 34.3 | 35.1 | 36.5 | 35.7 | 33.9 |
| Commercial/industrial connections | 6.7 | 6.1 | 3.2 | 2.8 | 5.5 | 3.2 |
| Residential meter replacement | 2.6 | 4.5 | 1.1 | 1.4 | 1.6 | 3.3 |
| Commercial/industrial meter replacement | 0.4 | 0.5 | 0.2 | 0.1 | 0.4 | 0.7 |
| Augmentation | 2.7 | 2.8 | 1.0 | 0.6 | 3.6 | 4.3 |
| IT | 2.4 | 1.9 | 10.4 | 9.9 | 10.0 | 15.4 |
| SCADA | 0.5 | 0.0 | 1.4 | 0.7 | 0.7 | 0.5 |
| Other | 1.4 | 3.1 | 3.3 | 2.5 | 3.9 | 7.3 |
| Overheads | 7.5 | 12.5 | 11.1 | 10.6 | 11.9 | 12.5 |
| GROSS TOTAL | 59.5 | 75.4 | 75.5 | 76.7 | 85.8 | 97.6 |
| Customer contributions | 3.7 | 4.1 | 3.4 | 3.6 | 3.6 | 3.8 |
| Government contributions |  |  |  |  |  |  |
| NET TOTAL | 55.7 | 71.3 | 72.2 | 73.1 | 82.2 | 94.0 |

Source: SP AusNet RIN

Note: (a) The 2012 figures represent forecast actual capex from SP AusNet's RIN and not the proposed inputs into the ECM, which are based on the ESCV's forecast in accordance with the ESC's capex incentive scheme.

2013–17 access arrangement period

SP AusNet proposed net total capex of $528.5million ($2012) for the 2013–17 access arrangement period. This represents a real increase of 37 per cent over the approved allowance for the 2008–12 access arrangement period. The AER notes that SP AusNet provided a number of updated information sources to the AER during the AER's assessment. The AER has incorporated these information sources into Table 3.4.

* + - * 1. SP AusNet proposed conforming capital expenditure 2013–17 ($million, $2012)[[64]](#footnote-64)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 | Total 2013–17 |
| Mains replacement | 24.9 | 26.5 | 28.2 | 28.5 | 33.0 | 141.1 |
| Residential connections | 34.9 | 35.9 | 36.5 | 37.1 | 38.5 | 182.7 |
| Commercial/industrial connections | 3.5 | 3.8 | 3.9 | 4.1 | 4.3 | 19.7 |
| Residential meter replacement | 4.8 | 5.2 | 4.6 | 4.5 | 4.5 | 23.7 |
| Commercial/industrial meter replacement | 0.9 | 1.0 | 1.0 | 1.1 | 1.2 | 5.2 |
| Augmentation | 6.2 | 6.2 | 7.2 | 1.0 | 2.5 | 23.1 |
| IT | 16.3 | 14.6 | 7.7 | 8.1 | 8.7 | 55.3 |
| SCADA | 0.9 | 0.9 | 0.9 | 0.8 | 0.9 | 4.5 |
| Other | 3.0 | 5.7 | 6.3 | 5.1 | 4.3 | 24.4 |
| Gas Extensions-NGEP | 1.5 | 1.0 | 0.1 | 0.1 | 0.0 | 2.8 |
| Overheads | 13.2 | 13.5 | 13.4 | 13.8 | 14.2 | 68.2 |
| GROSS TOTAL | 110.1 | 114.3 | 109.9 | 104.3 | 112.1 | 550.8 |
| Customer contributions | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 15.5 |
| Government contributions | 1.0 | 2.7 | 1.0 | 1.0 | 1.1 | 6.8 |
| NET TOTAL | 106.2 | 108.6 | 105.8 | 100.1 | 107.8 | 528.5 |

Source: SP AusNet RIN, adjusted.

Note: (b)The SP AusNet proposed total presented in this table does not equal the amount in SP AusNet's Access Arrangement Information due to revisions provided in response to information requests received by the AER.

* + - 1. Comparison of SP AusNet‘s past approved actual and proposed total capex and AER draft determination ($million, 2012)



Source: AER analysis

The major components of the forecast gross total capex are customer connections (37 per cent) mains replacement (26 per cent), overheads (12 per cent) and information technology (10 per cent) (see Figure 3.2 below).

* + - 1. Composition of SP AusNet’s proposed total capex for 2013-17 ($million, 2012)



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.[[65]](#footnote-65)

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 as set out in r. 74(1) 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[[66]](#footnote-66)
* 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(5) and r. 40(2) of the NGR.[[67]](#footnote-67) 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 SP AusNet in assessing SP AusNet’s proposed capex. The AER will not approve certain information and forecasts provided by SP AusNet if the information does not meet the requirements set out in the NGR.[[68]](#footnote-68) The AER must exercise its economic regulatory functions in a manner that will or is likely to contribute to the achievement of the NGO.[[69]](#footnote-69) 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 SP AusNet’s proposed capex in the earlier access arrangement period, the AER reviewed SP AusNet’s supporting material. This included information on SP AusNet's reasoning and, where relevant, business cases, audited regulatory accounts, and other relevant information. This information helped the AER identify the need for the capex over the earlier access arrangement period 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[[70]](#footnote-70). 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 SP AusNet’s actual capex for 2007 is conforming capex under the NGR[[71]](#footnote-71). This conforming capex is then included in the capital base roll forward[[72]](#footnote-72)
* 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 SP AusNet’s actual capex for 2008–11 is conforming under the NGR for inclusion in the capital base roll forward[[73]](#footnote-73)
* 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[[74]](#footnote-74). 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 SP AusNet's actual capex for 2012 is conforming capex under the NGR[[75]](#footnote-75).

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.

In making its assessment of whether SP AusNet’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 of capex. In making its decision on SP AusNet's proposed capex the AER relied upon the following information:

* The access arrangement information (AAI) - this document outlines SP AusNet's program of capital expenditure and describes the main drivers of increased capital expenditure
* The Asset Management Strategy, Asset Management Plan and appendices which provided specific expenditure detail[[76]](#footnote-76)
* Appendix 4A - Gas Demand Forecasting (CIE) report and Demand Model - CIE.xls
* RIN Template - SPN GAAR RIN template 300312.xls
* Final Capital Mapping Spreadsheet 28-3-2012.xls
* Submissions received in the course of consulting on the access arrangement proposal[[77]](#footnote-77)

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

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 were used by the AER to assess efficiency and prudency of SP AusNet'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.[[78]](#footnote-78)

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.

The AER used the results of a competitive tender process as the basis for assessing efficient costs for the Meter replacement capex for SP AusNet.

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, and IT.

The revealed cost approach is an accepted industry practice. Many gas businesses, including SP AusNet, have used this approach 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 by 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 SP AusNet has used to develop its capex forecast. In particular, the AER undertook a high level benchmarking of a selection of SP AusNet‘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 SP AusNet's capex may not be efficient, the AER undertook a detailed review of SP AusNet'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 support 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 SP AusNet‘s opex allowance.

Specialist technical advice

The AER engaged Nous Group to provide technical advice on the prudency and efficiency of IT projects. The AER engaged Zincara to provide engineering technical advice on the prudency and efficiency of augmentation projects and the medium pressure and minor specific mains replacement programs.

Cash flow analysis for equity raising costs

To determine the amount of equity raising costs, the AER undertook 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 SP AusNet.

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

The AER considers that the $354.7 million ($2012) net capex incurred by SP AusNet over 2007–11 complies with r. 79(1) of the NGR.

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

* SP AusNet's capex was 3.6 per cent below the ESC approved amount of $367.7 million ($2012) (see table 3.6).
* SP AusNet spent less than the ESC benchmark allowance in eight out of ten categories.
* In two categories SP AusNet spent more than the ESC benchmark allowance.
* In seven categories, SP AusNet underspent the ESC benchmark allowance by more than 10 per cent:
* SP AusNet spent 25 per cent less than the ESC benchmark allowance for low pressure mains replacement. This was largely attributable to SP AusNet delivering an average of 71 km per year, compared with the ESC approved amount of 87 km per year (a 19 per cent under delivery). SP AusNet attributed the underspend to difficulty accessing capital and greater than forecast numbers of connections which necessitated diverting capital away from mains replacement in order to fund connections.[[79]](#footnote-79)
* SP AusNet spent 53 per cent less than the ESC benchmark allowance for residential meter replacements. The underspend was due to a high proportion of meters passing meter sampling tests and therefore a lower volume of replacements than forecast. In addition, unit rates for residential meters were approximately 19 per cent lower than expected due to favourable contract conditions.[[80]](#footnote-80)
* SP AusNet spent 78 per cent less than the ESC benchmark allowance for Industrial and Commercial meter replacements. The underspend was due to a high proportion of meters passing meter sampling tests and therefore a lower volume of replacements than forecast.[[81]](#footnote-81)
* Augmentation expenditure was 25 per cent below the ESC benchmark allowance. SP AusNet underspent compared with their 2007-10 approved amounts, however it has over spent the 2011 benchmark due to unexpected augmentation in response to greater than forecast growth across the network, in particular for transmission pipeline reinforcement required in Torquay[[82]](#footnote-82).
* Expenditure on SCADA hardware was 33 per cent lower than the benchmark allowance approved by the ESC.
* SP AusNet spent 42 per cent less than the ESC benchmark allowance for other capex.
* In two other categories, SP AusNet spent more than 10 per cent over the ESC benchmark allowance:
* New residential connections expenditure was 36 per cent over the benchmark allowance. SP AusNet attributed this outcome 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.[[83]](#footnote-83) The actual number of new residential connections was 29 per cent higher than the ESC approved number of connections. The AER considers this to be prudent as distribution businesses have a regulatory obligation to connect customers. Unit costs for residential connections were approximately 7.2 per cent higher than the ESC approved benchmarks.[[84]](#footnote-84)
* Overhead expenditure was 15 per cent higher than the ESC benchmark allowance. SP AusNet was unable to explain this variance.[[85]](#footnote-85)
* Additionally, IT capex was 4.8 per cent below the ESC benchmark allowance. SP AusNet attributed this to lower actual costs in 2008 and 2009 for IT-related SCADA and the deferral of gas outage management systems to align with the migration of customers to SP AusNet’s Customer Information System.[[86]](#footnote-86)
* SP AusNet's consultants, AECOM, reviewed SP AusNet's capex over 2008–10 and concluded that the expenditure conformed with r. 79(1)(a) of the NGR.[[87]](#footnote-87)
  + - * 1. Comparison of ESC approved and SP AusNet actual capital expenditure over 2007–11 ($million, 2012)

|  |  |  |  |
| --- | --- | --- | --- |
| Category | ESC approved | SP AusNet actual | Difference |
| Mains replacement | 66.0 | 49.5 | -25.0% |
| Residential connections | 124.8 | 170.0 | 36.2% |
| Commercial/industrial connections | 36.8 | 24.4 | -33.6% |
| Residential meter replacement | 23.8 | 11.2 | -53.2% |
| Commercial/industrial meter replacement | 7.6 | 1.7 | -78.3% |
| Augmentation | 14.4 | 10.7 | -25.4% |
| IT | 36.2 | 34.5 | -4.8% |
| SCADA | 4.8 | 3.2 | -32.8% |
| Other | 24.5 | 14.2 | -42.1% |
| Overheads | 46.7 | 53.6 | 14.8% |
| GROSS TOTAL | 385.6 | 372.9 | -3.3% |
| Customer contributions | 17.8 | 18.4 | 3.3% |
| NET TOTAL | 367.7 | 354.5 | -3.6% |

Source: ESC, SP AusNet.

* + 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 SP AusNet's proposed labour and material cost escalation factors. For the final AER approved amounts which include these adjustments see Table 3.13. The AER assessment of labour and material cost escalation is in Appendix C.

The AER approves $431.5 million ($2012)[[88]](#footnote-88) of SP AusNet's proposed $528.5 million total net capex for the 2013–17 access arrangement.

shows approved capex over the 2013–17 access arrangement period by category.

* + - * 1. AER approved capital expenditure by category over the 2013–17 access arrangement period ($million, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 16.9 | 15.9 | 14.4 | 12.3 | 14.0 |
| Residential connections | 34.0 | 34.8 | 35.3 | 35.6 | 36.7 |
| Commercial/industrial connections | 3.1 | 3.3 | 3.3 | 3.4 | 3.5 |
| Residential meter replacement | 4.8 | 5.2 | 4.6 | 4.5 | 4.5 |
| Commercial/industrial meter replacement | 0.9 | 1.0 | 1.0 | 1.1 | 1.2 |
| Augmentation | 6.2 | 6.2 | 7.2 | 1.0 | 2.5 |
| IT | 13.6 | 13.0 | 6.9 | 7.5 | 7.6 |
| SCADA | 0.9 | 0.9 | 0.9 | 0.8 | 0.9 |
| Other | 2.5 | 4.3 | 5.0 | 4.9 | 4.1 |
| Gas Extensions-NGEP | 1.5 | 1.0 | 0.1 | 0.1 | 0.0 |
| Capital overheads | 11.6 | 11.6 | 11.6 | 11.6 | 11.6 |
| Total gross capital expenditure | 96.2 | 97.2 | 90.3 | 82.9 | 86.6 |
| Customer contributions | 2.8 | 2.9 | 3.0 | 3.1 | 3.1 |
| Government contributions | 1.0 | 2.7 | 1.0 | 1.0 | 1.1 |
| Total net capital expenditure | 92.3 | 91.6 | 86.3 | 78.8 | 82.4 |

Source: AER analysis.

Note: This Table does not include the effects of the AER's adjustments to labour and material escalators

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

Mains replacements

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 ageing 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.

SP AusNet proposed mains replacement capital expenditure of $141.1 million ($2012, escalated direct costs, excluding overheads) for the 2013–17 access arrangement period for the continuation of its current low pressure block rollout mains replacement (including a miscellaneous mains replacement allowance) and ad hoc mains and service replacement programs, the introduction of a medium pressure block rollout mains replacement program, and three minor specific replacement projects.

SP AusNet stated that its mains replacement capital expenditure is consistent with r. 79(1)(a) and r. 79(2)(c)(i)-(ii) of the NGR.[[89]](#footnote-89) The programs aims are to reduce the risk to people and property due to mains leaks and blockages, lower maintenance costs, improve reliability of supply and supply capacity.[[90]](#footnote-90)

The AER's assessment of capex for each of SP AusNet's mains replacement programs is set out below.

Low pressure mains replacement

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.

SP AusNet proposed capital expenditure of $95.1 million ($2012, escalated direct costs, excluding overheads) for its LP mains replacement program for the 2013–17 access arrangement period. It has proposed increasing the volume of LP to HP mains replacement from an annual average of 76.4 km[[91]](#footnote-91) in the 2008–12 access arrangement period to an annual average of 90 km in the 2013–17 access arrangement period[[92]](#footnote-92).

In its submission, the Energy Users Coalition of Victoria (EUCV) noted that SP AusNet is proposing an increase in the amount of mains replaced from 76.4km per year in the 2008–12 access arrangement period to 90 km per year in the 2013–17 access arrangement period. The EUCV noted that this increase in volume, which is increasing by under a quarter, is almost doubling the mains replacement capital expenditure forecast by SP AusNet.[[93]](#footnote-93)

In assessing capex for the low pressure mains replacement program, the AER has analysed both the proposed unit rates and volumes underlying SP AusNet's proposal.

Unit costs

SP AusNet's forecast average unit cost for LP mains replacement in the 2013–17 access arrangement period is 53 per cent higher in real terms than the average unit cost for the 2008–12 access arrangement period.

SP AusNet used two methods for calculating unit rates:

Areas where work has not previously been undertaken

For postcodes where work had not been previously undertaken, internal estimates were the basis for SP AusNet's projected expenditure. In order to assess the efficiency of these unit rates, the AER compared the cost build up against available industry data. The AER also benchmarked the unit rates in these postcodes against actual cost data from bordering postcodes where work had already been undertaken. Where a material variance was identified that could not be explained by suburb factors (including rockiness, traffic management requirements, number of services to be replaced, pavement and road reinstatement costs) further information was sought from SP AusNet. This information was taken into account when assessing SP AusNet's proposal.

In relation to these postcodes the AER considers that SP AusNet’s approach based on specific locational factors is a reasonable approach. The AER found that the unit rates were within a reasonable range of the historical weighted average unit rates of neighbouring postcodes or where there was a more material variation from nearby areas that SP AusNet provided explanations in terms of the added difficulty factors and a breakdown of costs for components such as mains laying, insertion, services and reinstatement.[[94]](#footnote-94)

Areas where work has been undertaken in the 2008–12 access arrangement period

For the remaining postcodes where work had already been undertaken in the current period, SP AusNet used a weighted average of the actual unit costs incurred and projected that unit rate forward. The AER compared each of these unit rates with the unit rates of neighbouring postcodes. Where a material variance was identified that could not be explained by suburb factors, further information was sought from SP AusNet. SP AusNet made revisions in response to these information requests. The AER was satisfied with the reasons for the variations.

To further test the efficiency of these unit costs, the AER also undertook cross-distribution business benchmarking of similar postcodes/suburbs.

Overall, the AER considers that SP AusNet's methodology is reasonable basis for estimating the efficient cost of future works, consistent with r. 74(2) of the NGR. The AER is satisfied with the explanations provided for variations between suburbs and considers that the unit rates are prudent and efficient consistent with the requirements of r. 79(1)(a) of the NGR.

The average unit rate for the proposed work program over the 2013–17 access arrangement period is $214/metre ($2012, unescalated direct costs, excluding overheads).

Volumes

In assessing SP AusNet’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), and prudent and efficient, under r.79(1)(a).

The AER does not consider that the volumes proposed by SP AusNet in excess of the annual average historical volumes are necessary or prudent and efficient. The historical volumes have been sufficient to meet SP AusNet’s chosen level of risk in the current period. Without evidence to the contrary, the AER considers that SP AusNet 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 SP AusNet 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.

SP AusNet proposed undertaking 444 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 2003-2007 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 2003-2007 and 2008-2012 access arrangement periods. The ESV is currently reviewing the distribution businesses prioritisation and approach to mains replacement.

In the 2008-12 access arrangement period SP AusNet proposed an annual volume of 90 km (a total volume of 450 km) of low pressure mains replacement but actually delivered an annual average of 73km of low pressure mains replacement between 2008‑11. For the 2008-11 period, SP AusNet was funded $57.1 million ($2012, direct escalated costs, excluding overheads) for the proposed 360 km but it only expended $42.6 million ($2012, direct escalated costs, excluding overheads).

In the 2003-07 access arrangement period SP AusNet proposed an annual volume of 75 km (a total volume of 375 km) of low pressure mains replacement but actually delivered an annual average of 63 km (a total volume of 315 km). For the 2003-07 period, SP AusNet was funded $44.4 million ($2012, direct escalated costs, excluding overheads) for the proposed 375 km but it only expended $40.9 million ($2012, direct escalated costs, excluding overheads).

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.

SP AusNet justified its proposed low pressure to high pressure mains replacement capex on the basis of maintaining safety, reliability, the need to meet regulatory obligations and to maintain capacity to meet levels of demand for services (r.79(2)(c)(i)-(ii))[[97]](#footnote-97). Specifically, SP AusNet stated that the aims of the main replacement program are to:

* “Lower the risk to personnel public and property due to mains leaks and mains blockages;
* Limit maintenance costs;
* Enhance customer service in areas of the network serviced by defective pipes;
* Improve reliability of supply;
* Improve system supply capacity;
* Decommission 'old' type low pressure District Regulating stations; and
* Move towards a uniform high pressure gas network”[[98]](#footnote-98).

SP AusNet stated that the mains replacement program is to address SP AusNet’s Gas Safety Case obligations[[99]](#footnote-99) to mitigate the existing risk to the public and employees, and to also ensure that SP AusNet’s assets comply with the safety aspects of the NGO[[100]](#footnote-100).

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[[101]](#footnote-101). 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. 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).

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. SP AusNet stated that it meets its safety obligations in relation to distribution mains through a mixture of the proactive mains replacement program, reactive mains replacement programs and proactive and reactive maintenance programs.[[103]](#footnote-103) The two reactive mains replacement programs involve the miscellaneous replacement program within the LP mains replacement program and the reactive mains services replacement program.[[104]](#footnote-104) The proactive maintenance program involves:

* mains and service renewals
* leakage survey and resulting leak repairs
* cathodic protection of steel mains
* valve maintenance
* marker post installation/maintenance
* exposed pipe maintenance
* syphon maintenance
* internal service maintenance.

Cathodic protection, valve, syphon and internal service maintenance reduce the degradation of the mains, enabling their asset life to be prolonged.

The reactive maintenance program involves:

* leak repairs (identified through public reports) on mains, meters and services
* syphon pumping (from water ingress on the low pressure network).

SP AusNet has revealed that it is able to meet its safety and reliability obligations through a mixture of mains replacement and maintenance programs. The revealed mix has involved less kilometres of low pressure to high pressure mains replacement than the amount proposed by SP AusNet and approved by the ESC over the 2003–07 and 2008–12 access arrangement periods.[[105]](#footnote-105)

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. For example, SP AusNet cites that it diverted capex from the mains replacement program towards connections investment[[106]](#footnote-106). 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.

SP AusNet stated that it has under delivered due to credit constraints associated with the GFC and to the need to divert funds towards connections, which were greater in number than forecast.[[107]](#footnote-107) SP AusNet reports that it "has remained compliant with its legal and regulatory safety obligations throughout the 2008–12 access arrangement period".[[108]](#footnote-108)

The AER accepts that SP AusNet 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 and the need to divert capital towards other programs has revealed that the least cost mix of work required to meet SP AusNet's safety and reliability obligations involves lower volumes of mains replacement than was proposed by SP AusNet for the current 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 the distribution businesses to meet their safety obligations.

The AER does not consider that the volumes proposed by SP AusNet in excess of the annual average historical volumes are necessary or prudent and efficient. The historical volumes have been sufficient to meet SP AusNet’s chosen level of risk in the current period. The AER considers that, as it has done in the past, SP AusNet 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 SP AusNet 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 the 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 approved volumes (the annual average of the historical volumes achieved for the 2008-11 period applied to the 2013-17 access arrangement period).

On completion of historical 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 SP AusNet. On the basis of confidential information provided to the AER, the AER considers the pass through provision will not materially change the existing level of certainty and control that SP AusNet currently has over future works.

Adjusted unit rates

SP AusNet and other distribution businesses have indicated that when undertaking a reduced volume of mains replacement, the works prioritised tend to be in the outer parts of the network where the work is less costly[[110]](#footnote-110). Given the reduction in approved volumes, the AER has prioritised the proposed works in order of unit cost. This results in an average unit rate of $184/metre ($2012, escalated direct costs, excluding overheads) and a total expenditure of $67.0 million ($2012, escalated direct costs, excluding overheads).

Miscellaneous replacement of mains

SP AusNet proposed a provision for miscellaneous mains replacement under its low pressure to high pressure mains replacement program of $0.79 million per year ($2012, escalated direct costs, excluding overheads) over the 2013–17 access arrangement period. SP AusNet used the 2007–08 to 2011–12 historical average of volumes to determine the average annual volume to be projected over the 2013–17 access arrangement period. To calculate the average unit rate SP AusNet excluded the unit rates for two projects which were significantly lower than the unit rates associated with the other work undertaken. It then took a weighted average to derive a forecast unit rate.

The AER considers that the miscellaneous replacement of mains is necessary under r. 79(2)(c)(i)-(ii) of the NGR.

AER considers that an historical average is appropriate as a basis for forecasting future expenditure for this category. However, it is inconsistent to include the volumes which were undertaken at a low unit rate for the purposes of deriving an average annual volume but to exclude the low unit rate from the calculation to derive an average annual unit rate. The AER has excluded both the volume and the unit rate for the two projects which have large volumes and low unit rates from the average volume and unit rate calculations on the basis that this provides a reasonable basis for forecasting expenditure as required under NGR r. 74(2)(a). The AER calculates the revised annual allocation for the miscellaneous program of $0.4 million ($2012, unescalated direct cost, excluding overheads) which the AER considers is the best estimate possible in the circumstances, consistent with r. 74(2)(b) of the NGR.

Medium pressure pipe replacement

SP AusNet proposed to introduce a new program of medium (MP) mains replacement. Under this program, all cast iron, high risk PE CL250 and unprotected steel is to be replaced by 2017[[111]](#footnote-111). The reasons given for undertaking this program are that:

* there has been an increase in the maintenance required for these mains
* failure modelling has indicated that replacement of some medium pressure assets will improve safety and reliability by reducing the incidence of leaks and subsequent outages, and
* replacement will deliver significant safety improvements for the public and employees working on the distribution network[[112]](#footnote-112).

SP AusNet proposed a total expenditure of $36.9 million ($2012, escalated direct cost, excluding overheads) for the 2013–17 access arrangement period, at an average unit rate of $237 per metre ($2012, escalated direct cost, excluding overheads). The packages were chosen to prioritise the removal of cast iron pipe material, high leakage areas and PE Class 250 pipe material[[113]](#footnote-113).

Drawing on the advice of its engineering consultant, Zincara[[114]](#footnote-114), the AER has considered a number of factors in determining whether the medium pressure pipe replacement is prudent and efficient and justifiable, including that:

* The program will result in some like for like replacements. SP AusNet stated that there is an increased need for like for like replacement due to fewer opportunities for using the insertion method and that in some instances, due to the distance from high pressure mains, like for like replacement is the only option available[[115]](#footnote-115). Any like for like replacements will have to be upgraded to HP in the future.
* The fracture rate indicates the priority of the particular mains, however, it does not necessarily justify the replacement program
* The historical number of mains leaks and the leakage incidence rate results for 2009 and 2010 for the medium pressure network are within the cyclical historical range of the   
  2002–10 period presented.[[116]](#footnote-116) Confidential information provided by SP AusNet shows that the main contributor to the upward trend in the number of leaks in 2009 and 2010 is unprotected steel, which only accounts for 35 per cent of the medium pressure network.[[117]](#footnote-117) It also showed that the number of leaks for the other two thirds of the medium pressure network are stable. The solution of replacing the entire MP mains network in order to address the small proportion of the mains creating the risk, especially when like for like replacement is planned, is not considered prudent and efficient by the AER.
* The leakage incidence rate for the cast iron component of the medium pressure network needs to be interpreted with care. As cast iron only constitutes 3 per cent of the network any incident of a leak will have a significant impact on the leakage incidence rate.
* Confidential information provided by SP AusNet shows that the leakage incidence rate for cast iron in the medium pressure network is relatively stable.[[118]](#footnote-118) A continuing increase in the rate would be expected in order to justify undertaking the replacement program on a proactive basis. Cast iron mains only make up 3 per cent of the medium pressure network.[[119]](#footnote-119)

The AER considers that the medium pressure mains replacement program can maintain and improve the safety and integrity of services. However, the AER does not consider that the program expenditure is necessary, as required by r. 79(2)(c)(i)-(ii) of the NGR as there is insufficient justification for it.

The AER considers that a proactive replacement program is not prudent and efficient under r. 79(1)(a) of the NGR given that two thirds of the medium pressure network is stable and that some of the replacement will be like for like replacement rather than an upgrade to HP.

Based on this assessment the AER does not approve the expenditure as conforming capex under r. 79(1) of the NGR. The AER revises this expenditure from $36.9 million   
($2012, escalated direct cost, excluding overheads) to zero.

Minor specific mains replacement projects

SP AusNet proposed $ 1.4 million ($2012, escalated direct cost, excluding overheads) for three minor specific mains replacement projects.

SP AusNet stated that the mains replacement should be undertaken to reduce the safety risks associated with these projects.

For two of these projects the AER considered confidential information provided by SP AusNet. SP AusNet stated that there is no change in the risk associated with the mains in question.[[120]](#footnote-120)

Drawing on the advice of its engineering consultant, Zincara[[121]](#footnote-121), the AER considers that a reactive program is adequate to deal with the risks associated with these mains over the 2013–17 access arrangement period. The AER therefore considers that this program is not justifiable under r. 79(2)(c)(i) of the NGR given that there has been no change in the risk associated with these mains. The AER therefore does not approve the proposed capex for two of the minor specific mains replacement projects worth $1.2 million ($2012, escalated direct costs, excluding overheads).

For the third minor specific mains replacement project, the AER considered the confidential information provided by SP AusNet. The AER considers that the works are necessary for maintaining safety the timing for the proposed works is prudent. The AER therefore considers that the proposed capex of $0.2 million ($2012, escalated direct cost, excluding overheads) is prudent and efficient under NGR r. 79(1)(a), justified under r. 79(2)(c)(i) of the NGR and the estimate is consistent with r. 74(2) of the NGR.

Reactive mains and services replacement

The reactive mains and services replacement program consists of two elements:

* Renewal of mains and services, where mains and services have failed and require urgent replacement (rather than repair). The mains replacement length is generally less than 20 metres
* Altering or lowering mains and services, where mains or services are impacting on other utilities or the depth of cover is reduced.

SP AusNet proposed an average annual allowance of $1.5 million per year ($2012, escalated direct cost, excluding overheads) for reactive mains and service replacements. This allowance is based on historical volume and unit cost trends. SP AusNet stated that it found no evidence of a significant volume trend for mains replacement and altering/lowering mains and services but stated that there was a significant upward trend for the volume of services replacement. SP AusNet used the actual average of 2007–10 for all unit rates.

The AER considers that it is justifiable to have an expenditure allowance for reactive mains and services replacement, as it is necessary for maintaining the safety and integrity of services, under r. 79(2)(c)(i)-(ii) of the NGR.

The AER agrees that it is appropriate to take an historical average given the unpredictability of the work. However the AER disagrees with imposing a long run trend to forecast the volume of services replacement unless it is supported by evidence. The AER asked SP AusNet for an explanation of why service renewals may be increasing but received no evidence from SP AusNet to substantiate its approach.[[122]](#footnote-122)

The AER considers that the number of services renewed should be based on the earlier access arrangement period as connections growth slows and the mains replacement program, which involves replacement of services at the same time, advances. The AER therefore considers that a more reasonable basis for the forecast of the number of services over the access arrangement period is the average of the annual number of services over 2008–11. This is consistent with the approach applied to the three other components of mains and services replacement. This reduces the forecast total number of services renewed over the access arrangement period. This results in a reduction in program expenditure from $7.7 million ($2012, escalated direct costs, excluding overheads) to $6.2 million ($2012, escalated direct cost, excluding overheads). The AER considers such expenditure would be prudent and efficient in accordance with r. 79(1)(a) of the NGR.

Customer connections

Distribution businesses have a regulatory obligation to connect residential and commercial/industrial customers to the distribution network upon request. The capital expenditure 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.

SP AusNet proposed capex of $202.4 million ($2012, escalated direct cost, excluding overheads) for customer connections capex over the 2013–17 access arrangement period. The proposed amount is a 2.6 per cent increase over the actual expenditure of $197.2 million ($2012, escalated direct cost, excluding overheads) in the 2008–12 access arrangement period. SP AusNet attributed this increase to increased housing density and so more labour per connection, increased volume of infill connections or redevelopment and increased incidence of rocky areas in growth areas (of Melton and Hume)[[123]](#footnote-123).

SP AusNet justified the capital expenditure under r. 79(1)(b), r. 79(2)(c)(iii) and r. 79(2)(c)(iv) of the NGR. [[124]](#footnote-124)

In its submission, the EUCV stated that SP AusNet has forecast a similar rate of new connections to that over the current access arrangement period. However, costs for connections have risen by 12 per cent in real terms.[[125]](#footnote-125)

The AER has assessed total capex for Tariff V connections by determining the unit costs for the mains, services and meters components and the forecast number of new connections for Tariff V class customers.

In the case of Tariff D customers, the size of customers and number of connections results in capex that tends to be lumpier compared to Tariff V. Given this, the AER's approach is to assess Tariff D capex at the total expenditure level rather than the unit rate level.

The expenditure assessed in this section excludes that associated with new area 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

Based on CIE modelling, SP AusNet projected a slowing of residential customer and commercial customer growth over the 2013–17 access arrangement period compared with growth in the 2008-12 access arrangement period[[126]](#footnote-126) (see attachment 9 for the AER's analysis of the net customer forecasts).

Customer connections are based on gross connections, which for capex purposes is equal to net connections (customers at 31 December less customers at 1 January) plus gross customer disconnections (abolishments plus disconnections) less customer reconnections (which are connections which don't require capital works).

SP AusNet built up its forecast of gross connections numbers by taking the 2011 closing balance of customers, adding the CIE net customer projection for 2012 and adding the SP AusNet forecast of abolishments. The SP AusNet forecast of abolishments is based on the trend in the ratio of abolishments to the opening customer numbers over 2006–11. This becomes the closing balance for 2013 and the process is repeated for the following years out to 2017.

As the trend in abolishments is forecast solely on historical data from 2006–11, it is forecast to continue on an unconstrained upwards trajectory.

In response to the AER's request for an explanation of why a continuous upward trend is reasonable, SP AusNet stated that:

"one driver of abolishments is the increase in infill development that is occurring in SP AusNet's network, whereby subdivision and higher density developments are taking [the] place of existing lower density connections."[[127]](#footnote-127)

SP AusNet advised that it does not record whether a customer connection is an infill or new estate connection.[[128]](#footnote-128) Therefore the AER is unable to verify the claim that the growth in abolishments is attributable to increasing infill development. However, SP AusNet provided estimates of the amount of infill versus new estates over the 2003–2011 period. These showed that the volume of infill connections was relatively flat.

Abolishments are usually the result of an existing dwelling being demolished and multiple dwellings being constructed in its place. Abolishments are therefore a function of economic activity and population growth. The AER considers that, as per the CIE forecast of net connections, it is reasonable to expect some softening of the growth in abolishments over the 2013–17 access arrangement period. SP AusNet's analysis shows that the absolute numbers of infill new customer connections has been relatively flat. On the basis of these two points, the AER consider the SP AusNet method of forecasting abolishments is not a reasonable forecast method as required by r. 74(2)(a) of the NGR and would not result in the best estimate possible in the circumstances as required by r. 74(2)(b) of the NGR. The AER's alternative forecasting method is to take an annual average of the number of abolishments over the 2007–11 period and project this forward. This is consistent with SP AusNet's approach to estimating unit rates.

This results in a reduction of 2,606 residential customer numbers and 255 commercial/industrial customers over the 2013–17 access arrangement period.

Unit costs

For Tariff V, SP AusNet proposed a weighted average residential connection rate of $2,761[[129]](#footnote-129) and a weighted average commercial/industrial connection rate of $18,912 (note: this unit rate includes Tariff D).[[130]](#footnote-130)

SP AusNet's unit rate estimates for the access arrangement period are based on historical unit rates which have been derived using the following methodology:

* The annual total capital expenditure on mains, services and meters over 2007–11 was divided between residential and commercial/industrial customers.
* For the mains, services and meters categories the unit costs for each year was calculated by dividing the total expenditure by the volume of residential or commercial/industrial connections
* The weighted average unit cost for 2007–11 was calculated for the mains, services and meters categories
* A contingency allowance of 10 per cent was added to the residential unit rates and of 5 per cent for the commercial/industrial unit costs. SP AusNet proposed a contingency as the unit rates in the 2008–12 access arrangement were higher than the ESC benchmark.[[131]](#footnote-131) SP AusNet calculated the contingency on the basis of the difference between the benchmark and actual unit rates during the 2008–12 access arrangement period.
* SP AusNet provided separate total costs for standard and non-standard Tariff V residential connections but was unable to provide separate volume data for unit rate analysis. The AER has therefore grouped standard and non-standard connections together for the purposes of assessing the Tariff V residential unit cost.

The AER assessed the trend of the annual historical unit rates to ensure that the use of 2007–11 data was appropriate. The unit rates are variable over the period, with generally no clear trend, hence the AER agrees with SP AusNet's approach of using a weighted average across 2007–11 to arrive at a base unit rate.

The AER does not approve SP AusNet's proposed application of a 10 per cent contingency on residential unit rates and 5 per cent on commercial and industrial unit costs. SP AusNet has not provided information which demonstrates that the contingency is based on a calculation of the cost of expected changes in housing density, rocky ground or infill. The calculation of the contingency is based on the cost overspend in the current period. SP AusNet has not connected the overspend in the 2008–12 access arrangement period to undertaking connections with greater housing density, rocky ground or infill than was already accounted for in the benchmark unit rate. Further, SP AusNet has not provided evidence for why the same over spend rate is applicable to the 2013–17 access arrangement period.

Due to the inclusion of the contingency, which the AER considers is not arrived at on a reasonable basis as required by r. 74(2)(a) of the NGR, the AER does not approve the unit rates proposed by SP AusNet. Such rates would not represent the best estimate possible in the circumstances.

The AER approves an average Tariff V residential connection unit rate of $2,392 ($2012, escalated direct costs, excluding overheads) and an average Tariff V commercial/industrial connection unit rate of $12,010 ($2012, escalated direct costs, excluding overheads) for the 2013–17 access arrangement period.

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

Taking into account the reduction in volumes and the contingency on unit rates, the AER approves a total expenditure over the 2013-17 access arrangement period of $176.4 million ($2012, escalated direct costs, excluding overheads) for residential connections and $11.3 million ($2012, escalated direct costs, excluding overheads) for commercial and industrial connections. This is $6.3 million ($2012, escalated direct costs, excluding overheads) and $3.1 million ($2012, escalated direct costs, excluding overheads) lower than SP AusNet's proposed capex for residential and commercial/industrial connections, respectively. The AER considers that these capex amounts are consistent with r. 79(1)(a) of the NGR.

Tariff D

Tariff D customers are typically larger industrial customers, consuming greater than 10 TJ/year. Connecting these customers to a gas network involves capital expenditure on laying new mains, installing a service pipe/inlet from the main to the meter, meter installation and reinforcement of network assets based on customer load requirements.

SP AusNet based its forecast costs over the access arrangement period on the average total cost of Tariff D connections over 2007 to 2011. The AER considers that this forecasting approach is consistent with r. 74(2) of the NGR given the variation in the cost and frequency of the connections. The AER approves SP AusNet's proposed expenditure of   
$5.2 million ($2012, escalated direct costs, excluding overheads) for 2013–17 on the basis that connecting Tariff D customers is a regulatory obligation and the costs are efficient as revealed by the historical expenditure undertaken. The AER considers that the proposed capex is consistent with r. 79(1)(a) and r. 79(2)(c)(iii) 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 requires that meters read customers' gas usage accurately within an acceptable error tolerance range. Gas meters are continually sampled and tested for accuracy, and based on sample test results, the wider meter population (meter family) is allocated a life and a forecast replacement date. Sample testing is conducted in accordance with the in-service compliance standard.[[132]](#footnote-132)

SP AusNet's meter replacement program relates to both residential and industrial and commercial meters and comprises the following sub-components:

* In-service compliance testing program—Outcomes of compliance testing leads to a field life extension (5, 3, or 1 year) or the meter family being removed from the field.
* Time expired meter replacement program—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.
* Meter Faults—SP AusNet reactively replaces meters that fail in operation.
* No-access program—Dedicated program to target and replace meters that remain in the field beyond their in-service compliance periods (inability to access the meters being the primary reason). [[133]](#footnote-133)

SP AusNet proposed meter replacement capex of $28.9million ($2012, escalated direct costs, excluding overheads) for the 2013–17 access arrangement period (see table 3.8.)

* + - * 1. Meter replacement - Summary of SP AusNet's proposed volumes and unit rates(a)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Meter replacement volumes | 39,016 | 42,325 | 37,231 | 35,919 | 35,124 | 189,615 |
| Meter replacement unit cost | 146.5 | 147.8 | 151.3 | 156.2 | 161.9 | 152.4 |
| Total capex (000's) | 5.7 | 6.3 | 5.6 | 5.6 | 5.7 | 28.9 |

Source: SP AusNet.[[134]](#footnote-134)

Notes: (a) This table presents unit rates and volumes that have been aggregated across all elements of SP AusNet's meter replacement program of commercial and residential meters.

The AER considered the basis on which SP AusNet 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 SP AusNet 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
* The efficiency of proposed unit rates of meters replaced

In its submission, the EUCV raised concerns that, while it sees no step changes in the volume of meter replacements the cost of meter replacement has nearly doubled relative to costs in the current access arrangement period.[[135]](#footnote-135) The AER notes the EUCV's concerns about the increase in costs. The AER has assessed the efficiency of SP AusNet's proposed unit costs as part of its assessment of meter replacement capex.

The AER approves SP AusNet's proposed meter replacement expenditure of $28.9m ($2012, escalated direct costs, excluding overheads). The AER considers that meter replacement capex complies with r. 79(2)(c)(ii) of the NGR as it is required to maintain the integrity of gas services. The AER considers that SP AusNet's capex also complies with r. 79(1)(a) and r. 74(2) of the NGR. The AER considered SP AusNet's forecasts of both volumes and the unit rates for its meter replacement program in assessing the proposed capex. This analysis is detailed below.

Domestic meter replacement volumes

Domestic meter replacements comprise the bulk of total meter replacements. SP AusNet proposes to replace 186,692 domestic meters with total capex of 23.7 million ($2012, direct escalated costs, excluding overheads) over the 2013–17 access arrangement period.

* + - 1. SP AusNet forecast and historical domestic meter replacement volumes



Source: SP AusNet.[[136]](#footnote-136)

In Service compliance testing

SP AusNet stated that its testing program complies with the statistical methods outlined in AS/NZS 4944:2006.[[137]](#footnote-137) This standard outlines two methods of statistical analysis that can be adopted for in-service compliance testing. SP AusNet uses the “Variables” method of sample testing. The "Variables" method requires a smaller sample size than the "Attributes" method. If meters fail the "Variables" method, then SP AusNet removes more meters to complete the testing under the "Attributes" method.

The AER examined SP AusNet's proposed approach and considers that this is a reasonable approach to the statistical sampling. By first performing sampling under the variables method, SP AusNet has reduced 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.

Time expired replacement program

The AER examined the age of meter families when SP AusNet proposes to remove the meters from the field. As demonstrated in figure 3.4, the average age of meters when SP AusNet proposes to remove meters from service ranges from approximately 18 to 26 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 reflect a realistic assumption regarding the outcome of the in-service compliance testing under AS/NZS 4944:2006 and that the works are not overstated or undertaken unnecessarily.

SP AusNet proposed to smooth the profile of replacements. SP AusNet considers large fluctuations result in unfavourable unit rates, due to the need to mobilise and subsequently demobilise resources.[[138]](#footnote-138) The AER accepts there may be costs involved in mobilising and demobilising a workforce and so considers smoothing is appropriate in some circumstances. In SP AusNet's case, the "early retirement" meters are still removed when the installed lives are at the low end of what the AER considers reasonable. Accordingly the AER accepts that these meters are not being removed from service unreasonably early.

The AER considers the volume of meters to be replaced under this program is consistent with r. 74(2) of the NGR and prudent and efficient.

* + - 1. Meter replacement - historical and forecast meter age profile



Source: SP AusNet.[[139]](#footnote-139)

Meter faults program

SP AusNet proposed an allowance for an additional reactive replacement program which targets domestic meter faults. SP AusNet stated that the domestic meter faults generally occur at an average fault rate of 0.3 per cent of the domestic meter population per annum.[[140]](#footnote-140) In response to an AER information request SP AusNet provided additional information regarding its historical domestic meter faults.[[141]](#footnote-141) The historical data supported SP AusNet's assumption that the average fault rate is 0.3 per cent of the domestic meter population. Accordingly, the AER considers the volume of meters proposed to be replaced under this program is consistent with r. 74(2) of the NGR and is prudent and efficient.

No access program

SP AusNet proposed an allowance for a "no access" domestic meter replacement program. This relates to meters which remain in the field beyond their in-service compliance period. SP AusNet stated that an inability to access the meter is the primary reason for meters remaining in the field beyond their in-service compliance period.[[142]](#footnote-142) SP AusNet indicated that it has always incurred additional costs in relation to these meters. These costs relate to additional liaison with property owners to gain access to meters and in many cases the work is performed outside normal work hours. SP AusNet has now introduced a program to deal specifically with these meters.[[143]](#footnote-143)

SP AusNet provided historical data to indicate that it is successful in removing around 97 per cent of time expired meters in the required timeframe. However, due to being unable to access some meters, around 3 per cent of the time expired meters are not completed in the allotted timeframe and need to be addressed by this no access program. Based on the historical data provided, the AER is satisfied that this is an appropriate method for forecasting the volume of no access meters.

The AER considers the volume of meters to be replaced under this program is consistent with r .74(2) of the NGR and prudent and efficient.

Industrial and commercial meter replacement volumes

SP AusNet proposed to replace 2,922 Industrial and Commercial meters with total capex of $5.2m ($2012, direct escalated costs, excluding escalation) over the 2013–17 access arrangement period. The industrial and commercial meter replacement strategy consists of a program to replace industrial and commercial meters that reach the end of their deemed life and a program to cover meter faults.

SP AusNet's proposed replacement volumes are depicted below in figure 3.5:

* + - 1. Meter replacement - forecast industrial and commercial meter replacements



Source: SP AusNet.[[144]](#footnote-144)

Time expired replacement program

Industrial and commercial 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.[[145]](#footnote-145) The deemed meter life is approximately constant and similar across meter categories, as shown below in figure 3.6:

* + - 1. SP AusNet forecast industrial and commercial meter replacement age



Source: SP AusNet.[[146]](#footnote-146)

SP AusNet identified the type and number of industrial meters which will need to be removed in each year as well as the year in which they were installed. As shown in figure 3.8, SP AusNet proposes to remove industrial and commercial meters shortly before the 15 year useful installed life expires. The AER considers this is a prudent and efficient approach to industrial and commercial meter replacements.

Meter faults program

SP AusNet proposed an allowance for an additional reactive replacement program which targets industrial and commercial meter faults. SP AusNet stated that the industrial and commercial meter fault category represents an average replacement rate of 1.2 per cent of the industrial and commercial meter population.[[147]](#footnote-147) In response to an information request SP AusNet provided additional information on the historical number of industrial and commercial meter faults.[[148]](#footnote-148) The historical data provided shows an increasing trend in the percentage of meter faults. The actual level of meter faults in 2011 was 1.2 per cent of the industrial and commercial meter population. The AER accepts that in the absence of compelling evidence of a continuation or reversal of the upwards trend that using an assumption that the 2011 actual rate of meter faults will continue is a reasonable estimate.

Unit rates for residential and commercial and industrial

The AER considered the unit rates submitted by SP AusNet for the meter replacement program. SP AusNet's costs of the meter replacement program are forecast on the individual components of the meter replacement program. In response to additional information requests SP AusNet provided sufficient information to allow the AER to examine the:

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

The blended unit rates for the subcomponents of SP AusNet's meter replacement program are set out in confidential attachment A. The AER notes that a majority of meters forecast to be replaced will be replaced with refurbished, rather than new meters. The cost of a refurbished meter is less than that of a new meter. The AER considers this strategy is one which contributes to achieving the lowest sustainable unit cost for meter replacements.

In response to an AER information request of 8 June 2012, SP AusNet provided a comprehensive cost build-up model demonstrating the manner in which SP AusNet has calculated its proposed meter replacement expenditure.[[149]](#footnote-149) Additionally, SP AusNet provided a copy of contracts which covered the provision of the majority of the required materials and services.[[150]](#footnote-150) The AER examined the contracts provided by SP AusNet and is satisfied that these costs are reflected in SP AusNet's cost build-up model. The AER examined the cost build-up model in detail and considers that the total unit rates are prudent and efficient. Accordingly, the AER considers that the unit rates proposed by SP AusNet comply with r.79(1)(a) of the NGR and are those which will be incurred by a prudent and efficient service provider.

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.

SP AusNet proposed a total forecast of $23.1 million ($2012, escalated direct costs, excluding overheads) for augmentation capex over the 2013–17 access arrangement period.

SP AusNet proposed augmentation capex is in response to significant growth in gas demand and customer numbers, which is attributed to strong residential growth, increasing use of gas fuelled appliances, and increasing uptake of gas in regional towns where gas has been rolled out under the natural gas extension program[[151]](#footnote-151).

The AER assessed SP AusNet'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 SP AusNet.

The AER considers that SP AusNet's augmentation expenditure is justifiable under r. 79(2)(c)(i)-(iii) of the NGR as it is necessary to maintain safety and the integrity of services and to meet minimum specified regulatory pressures.

Drawing on the advice of its engineering consultant, Zincara[[152]](#footnote-152), the AER considers that SP AusNet's proposed augmentation capex complies with r. 79(1) of the NGR for the following reasons:

* SP AusNet's proposed augmentation solutions are prudent given SP AusNet's forecast of connections growth and gas demand, which shows gas pressure declining below minimum gas pressures in constrained network areas in the year before the proposed augmentation, and
* the input costs of the augmentation projects are considered to be within a reasonable range of industry standard costs and reflect that of a prudent and efficient service provider.[[153]](#footnote-153)

SCADA

SP AusNet’s Supervisory Control and Data Acquisition (SCADA) systems are used to control and monitor station plant remotely via Remote Telemetry Units (RTUs). This section relates to the SCADA assets, generally hardware, in the gas distribution network.[[154]](#footnote-154)

SP AusNet proposed total SCADA expenditure of $4.5 million ($2012, unescalated direct costs, excluding overheads) for the 2013–17 access arrangement period.

The main components of SP AusNet’s SCADA program are:

* Upgrading all high and medium pressure networks to SCADA control
* Installing new communication radio base stations in response to network growth and replacing existing RTUs with GPRS communications
* Replacing defective or obsolete equipment
* Installing new fringe RTUs in response to network growth
* New remote pressure recorders
* New gas detectors
* Replacement of small components which are subject to failure including pressure transmitters, motors/pilots, fringe pressure switches and solar regulators[[155]](#footnote-155).

SP AusNet submitted that these works are justifiable under r. 79(2)(c) of the NGR.

The AER assessed SP AusNet's SCADA 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 SP AusNet.

SP AusNet stated that its forecast SCADA capex is based on historical costs, and provided a list of SCADA projects and costs completed in the current period. This shows variation between the unit costs depending on site factors, but the AER is satisfied that the forecast costs are within an acceptable range of actual past costs. The AER considers that this approach provides a reasonable basis for estimating the efficient cost of future works, and provides the best possible estimate in the circumstances, consistent with r. 74(2) of the NGR.

The AER considers SP AusNet’s proposed SCADA capex is justifiable under r. 79(2)(c) of the NGR, and the unit costs for RTUs and other SCADA hardware are at efficient levels such as would be incurred by a prudent service provider.

The AER approves the total $4.5 million ($2012, unescalated direct costs, excluding overheads) of SP AusNet's proposed SCADA capex as conforming capex under r. 79(1) of the NGR.

Information technology

SP AusNet’s proposals include IT systems to manage assets and works, customers, billing and back office functions and the underpinning infrastructure. This IT category includes the SCADA master station but excludes SCADA hardware.

SP AusNet proposed capex of $58.1 million ($2012, escalated direct costs, including overheads) or $55.3 million ($2012, escalated direct costs, excluding overheads).

SP AusNet's proposed IT program consists of:

* Asset and works management - a new integrated enterprise asset and works management platform to increase efficiency of end-to-end asset and works management processes
* Network management - improved outage management system and SCADA system upgrades, including improved pressure management to improve safety and maintain network integrity and customer service
* Customer and meter management - a new customer management system to maintain customer service levels
* Workforce collaboration - systems to support scheduling, dispatching and execution of work to improve safety and maintain customer service
* Analytics and reporting - improve analytics and reporting to maintain network capacity
* Back office management - ensure back office systems meet the increase in the volume of transactions
* ICT infrastructure and operations - ensure ICT infrastructure is capable of responding to changes in business requirements
* AMI systems and infrastructure capital expenditure - IT systems which SP AusNet shares across its various business operations (see table 3.9)[[156]](#footnote-156).
  + - * 1. SP AusNet proposed IT project expenditure ($million, 2012)(a)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Initiatives | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Asset and works management | 1.7 | 0.2 | 0.2 | 0.1 | 3.2 | 5.4 |
| Network management | 0.0 | 1.7 | 0.0 | 2.4 | 0.8 | 4.9 |
| Customer & meter management | 1.9 | 0.0 | 3.9 | 0.0 | 0.0 | 5.8 |
| Workforce collaboration | 2.8 | 1.2 | 0.2 | 1.5 | 0.0 | 5.7 |
| Back office management | 2.9 | 0.3 | 1.2 | 0.0 | 0.0 | 4.4 |
| Analytics and reporting | 0.9 | 0.7 | 0.0 | 0.5 | 0.5 | 2.7 |
| IT infrastructure & operations | 5.8 | 7.8 | 6.1 | 4.1 | 4.5 | 28.2 |
| AMI systems & infrastructure | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Total | 17.1 | 11.8 | 11.6 | 8.5 | 9.0 | 58.1 |

Source: SP AusNet.[[157]](#footnote-157)

Notes: (a) Escalated direct costs, including overheads.

SP AusNet submitted that the IT projects are justifiable under r. 79(2)(c) of the NGR.[[158]](#footnote-158)

SP AusNet stated that its capital program for the 2013–17 access arrangement period builds on IT programs that are shared across SP AusNet’s three network businesses –electricity distribution, electricity transmission, and gas distribution. SP AusNet noted that the ICT projects approved in the AER’s determination for the 2009 Advanced Metering Infrastructure (AMI) review and the last 2011 Electricity Distribution Price Review (EDPR) constitute 78 per cent of its proposed IT capex. In addition, SP AusNet stated that its allocation of AMI capex to its gas distribution business reflects its ability to more efficiently deliver the AMI program by leveraging IT systems across SP AusNet’s regulated networks.[[159]](#footnote-159)

In assessing SP AusNet's proposed IT capex, the AER considered the justifications for and efficiency of the proposed works. The AER examined the business cases, obtained advice from the consultant Nous Group, considered historical costs and external benchmarks, and requested further information from SP AusNet.

The AER notes that in its EDPR and AMI review, it approved only the expenditures within the scope of the review - namely, for electricity distribution. It did not make determinations on the enterprise-wide costs for the projects or the amounts allocated to the gas business.

The AER accepts the advice of the Nous Group as to the prudency and efficiency of SP AusNet's IT programs. Consistent with r. 74(2) and r. 79(1) of the NGR, the AER considers that:[[160]](#footnote-160)

* the contingency allowance applied to projects is excessive by industry standards and should be reduced
* the labour component for several IT programs are above an efficient level and should be reduced.
* NECF costs should be removed, as the date for its introduction is uncertain. Actual costs can be allowed as a pass through when the NECF is introduced in Victoria.

The AER's draft decision is to approve $48.6 million ($2012, escalated direct costs, excluding overheads) of SP AusNet's proposed IT capex as conforming under r. 79(1) of the NGR.

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.

The AER approves $20.8 million ($2012, direct escalated costs, excluding overheads) in 'other non-demand' capex' over the 2013–17access arrangement period. However, the AER does not approve $3.6 million ($2012, direct escalated costs) in 'other non-demand capex' over the 2013–17 access arrangement period. The AER does not approve this expenditure as it does not comply with r. 79(1) and r. 74(2) of the NGR. This is a reduction of 15 per cent from SP AusNet's proposed 'other non-demand capex' of $24.4 million ($2012, direct escalated costs, excluding overheads). The proposed and approved capex allowances for each project is set out in confidential attachment A.

* + - * 1. SP AusNet's Other-non demand Capex proposal ($million, 2012)(a)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| SP AusNet proposed | 3.0 | 5.7 | 6.3 | 5.1 | 4.3 | 24.4 |
| AER approved | 2.5 | 4.3 | 5.0 | 4.9 | 4.1 | 20.8 |
| Difference | –0.5 | –1.4 | –1.3 | –0.2 | –0.2 | –3.6 |

Source: AER Analysis

Notes: (a) Escalated direct costs, excluding overheads.

SP AusNet proposed 23 capex projects which fit in the 'other non-demand' category. The AER considers that two of these projects (Alter/lower mains and Alter/lower service) actually fit in the mains replacement category and the AER has assessed them as mains expenditure. The AER considers that the City gate relocation project is part of the augmentation category and assessed it in that category. The AER also considers that one project (Major Alterations) which was proposed as part of connections capex is better allocated to other non-demand capex category. Accordingly the AER considers that there are 21 projects which fit in the other non-demand category of capex, with a total proposed expenditure of $24.4 million ($2012, direct escalated costs, excluding overheads).

These projects generally relate to replacing outdated regulators, replacing or installing new waterbath heaters, relocating pipeworks due to encroachment or exposure and upgrading or replacing miscellaneous items. Detailed information concerning these projects is in the following confidential attachments to SP AusNet's submission:

* SP AusNet Asset Management Plan 2012–17
* Appendix 5J.1 - Transmission Pipeline Strategy
* Appendix 5J.2 - Regulating Facilities - Network Strategy
* Appendix 5J.4 - Regulating Facilities - Consumer Strategy
* Appendix 5J.6 - Exposed Pipework Strategy.pdf
* Appendix 5J.7 - Corrosion Protection Stratergy.pdf
* SP AusNet GAAR Capital Expenditure Forecast Model.xls

In undertaking assessment of these projects, the AER examined the business cases provided by SP AusNet and where required requested further information from SP AusNet.

Projects which comply with NGL and NGR requirements

The AER considers that the following projects 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:

* Grove Model 80 & 81[[161]](#footnote-161)
* Rockwell Model 441 & 1001[[162]](#footnote-162)
* Grove Regulator Upgrade Program[[163]](#footnote-163)
* New heater installation[[164]](#footnote-164)
* Welker Jet Regulator replacement[[165]](#footnote-165)
* Grove Regulator replacement[[166]](#footnote-166)
* Heater replacement[[167]](#footnote-167)
* Heater access platform[[168]](#footnote-168)
* Portable city gate[[169]](#footnote-169)
* City gate security upgrade[[170]](#footnote-170)
* Property Projects[[171]](#footnote-171)
* Communications Equip/Projects[[172]](#footnote-172)
* M/V & Plant Purchases[[173]](#footnote-173)
* General Equipment & Furniture[[174]](#footnote-174)
* Major Alterations[[175]](#footnote-175)
* Corrosion Protection[[176]](#footnote-176)

Projects which do not comply with rule 74(2) of the NGR

The AER considers that the following project does not comply with r. 74(2) of the NGR because the forecast has not been arrived at on a reasonable basis:

* Miscellaneous I&C[[177]](#footnote-177)

SP AusNet proposed that capital expenditure is regularly incurred on minor ad hoc work at industrial and commercial sites.[[178]](#footnote-178) This work is required due to a combination of OH&S, risk mitigation, regulatory, compliance, asset integrity and/or operational requirements.[[179]](#footnote-179)

The AER assessed this proposed expenditure and accepts that a prudent and efficient service provider would incur this capital expenditure. However, the AER considers that SP AusNet's forecast expenditure has not been arrived at on a reasonable basis. SP AusNet indicated that its forecast allowance is based on the historical level of expenditure.[[180]](#footnote-180) In response to an information request by the AER, SP AusNet provided the historical capex on this category.[[181]](#footnote-181) The AER has examined SP AusNet's historical expenditure on miscellaneous capital works and found that it is considerably lower than SP AusNet's forecast for the 2013–17 access arrangement period. SP AusNet's historical expenditure is approximately 25 per cent of that proposed in the 2013–17 access arrangement period. SP AusNet has not provided justification for the forecast large increase in this category. Accordingly the AER considers that SP AusNet's forecast is not arrived at on a reasonable basis and does not represent the best forecast possible in the circumstances. The AER considers a forecast based on actual historical expenditure meets the r. 74(2) criteria of the NGR and would be the efficient expenditure incurred by a prudent business.

Projects which do not comply with rule 79(1) of the NGR

The AER considers that four of SP AusNet's other non-demand projects would not be undertaken by a prudent and efficient distribution business and so the proposed capex does not comply with r. 79(1)(a) of the NGR. The AER notes that these projects relate to specific network assets that SP AusNet considers may be areas of network vulnerability. SP AusNet considers the location of these network assets to be sensitive. Accordingly, the AER's consideration of these projects is set out in confidential attachment A.

The AER's does not approve these projects as the AER considers a prudent and efficient service provider would only undertake these projects if a risk assessment demonstrated that:

* The existing controls are ineffective. AS2885.3 2007[[182]](#footnote-182) states that controls are considered effective when failure as a result of that threat has been removed for all practical purposes at that location.
* The proposed expenditure is the most cost effective manner in which to institute effective controls.

As discussed in confidential appendix A, the AER does not consider that SP AusNet has demonstrated that it has undertaken robust risk assessments or quantified the current level of risk and degree to which it can be mitigated. As such, the AER does not consider these projects would be undertaken by a prudent and efficient service provider.

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.

SP AusNet proposed total capital expenditure of $2.8 million ($2012, escalated direct cost, excluding overheads)[[183]](#footnote-183) to extend the gas distribution network approximately 3.5km north east of Bendigo to the Huntly Township. This includes 13.1km of reticulation work and the connection of up to 580 potential new customers.[[184]](#footnote-184)

The connection of natural gas to Huntly Township is part of the Victorian government's Energy for the Regions plan.[[185]](#footnote-185) Under this plan the Victorian Government has made up to $100 million available for connecting regional towns to natural gas supply. On 12 May 2012, Deputy Premier and Minister for Regional and Rural Development Peter Ryan announced agreement with SP AusNet to connect the gas distribution system to Huntly.[[186]](#footnote-186)

SP AusNet's costing and take up assumptions indicate that the cost of the project is not offset by the additional revenue that it is expected to generate. However, the capital contribution from the Victorian Government is calculated to make up this shortfall in revenue and ensure that SP AusNet's existing customers do not subsidise this extension. The AER notes that the Victorian Government has made a public commitment to this project and the AER considers this provides a firm indication to the AER that this planned project will proceed over the   
2013–17 access arrangement period. Accordingly, this proposed capex is consistent with r. 79(2)(b) of the NGR.

The AER examined SP AusNet's cost build-up of the proposed extension. Specifically, the AER compared SP AusNet's proposed unit costs for the laying of mains, reticulation, installing meters and services against proposed costs for similar work. On the basis of this comparison the AER considers that SP AusNet's proposed capex complies with r. 79(1) of the NGR and is reflective of the costs that a prudent and efficient distribution business would incur to undertake this work. The AER notes that SP AusNet's proposal also included costs for design, project management and installation of a fringe RTU. The AER also considers that these are prudent and efficient incidental costs required to undertake this extension.

The AER approves SP AusNet's proposed expenditure for extending the gas distribution network to the Huntly Township in the 2013–17 access arrangement period. The AER considers that the proposed capex complies with r. 79(1)(a) and r. 79(2)(b) of the NGR.

* + - * 1. SP AusNet's extension capex ($million, 2012)(a)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| SP AusNet proposed | 1.53 | 1.03 | 0.14 | 0.10 | 0.04 | 2.84 |
| AER approved | 1.53 | 1.03 | 0.14 | 0.10 | 0.04 | 2.84 |
| Difference | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Source: SP AusNet, AER analysis.

Notes: (a) Direct costs including escalation, excluding overheads.

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.

SP AusNet proposed $68.2 million ($2012, escalated direct costs) in overheads expenditure for the 2013–17 access arrangement period (see table 3.12).

* + - * 1. SP AusNet's proposed overheads expenditure ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Overheads expenditure | 13.2 | 13.5 | 13.4 | 13.8 | 14.2 | 68.2 |

Source: SP AusNet[[187]](#footnote-187), adjusted by the AER for information request revisions.

The methodology SP AusNet proposed for deriving overheads is to:

* use the 2011 estimate of overheads as the base
* estimate the labour and non-labour components of total overheads..
* escalate the labour component by SP AusNet's proposed labour escalation (see confidential appendix C)
* escalate the materials component by a factor which SP AusNet state reflects the growth in the capital program and the fixed/variable nature of the materials component[[188]](#footnote-188).

SP AusNet derive an average overhead rate of 15.4 per cent over the access arrangement period for network capital expenditure. A 5.0 per cent overhead rate is applied to IT in recognition that overheads are significantly less and no overhead is applied to general capital expenditure.[[189]](#footnote-189)

The AER does not consider that the overhead expenditure provides a representative base for overheads for the 2013-17 period. There was a material variance in the overhead expenditure between years over 2008-11, thus the AER considers that an annual average of the 2008-11 overheads expenditure is more representative of the overheads base expenditure for the 2013-17 access arrangement period.

The AER requested that SP AusNet justify the labour/non-labour splits used. The AER does not consider that SP AusNet has provided evidence which supports the use of the proposed splits.

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 SP AusNet'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 capital expenditure by the average of the 2008–11 overheads share of total net capital expenditure divided by the average of the 2008 to 2011 direct cost share of total net capex
* Multiplying the derived change in overheads by the estimated proportion of variable costs.

SP AusNet advised that "the majority of costs ... would be expected to be fixed in nature"[[190]](#footnote-190). The AER therefore did not make any adjustment for variable overheads.

This approach results in a total overhead cost of $57.9 million ($2012) compared to the total overhead cost of $68.2 million ($2012) proposed by SP AusNet, a reduction of 15.1 per cent.

Government and customer contributions

SP AusNet proposed total customer contributions of $15.5 million ($2012) and government contributions of $6.8 million ($2012) over the 2013–17 access arrangement period for new customer connections, major alterations and the new gas extension program.

The AER has made reductions to Tariff V residential and commercial/industrial customer numbers in the assessment of new customer connections which has decreased Tariff V residential customer connections expenditure by 3.4 per cent and Tariff V commercial/industrial customer connections expenditure by 21 per cent. The customer contributions for residential and commercial/industrial customer connections are therefore scaled back accordingly.

The AER approves total customer contributions of $14.9 million ($2012) and government contributions of $6.8 million ($2012) over the 2013–17 access arrangement period.

* + 1. Adjustments to labour and material escalation

The AER has revised down the labour and material escalation that was proposed by SP AusNet. Internal and external labour escalation has been revised down. Materials escalation has been revised to zero real escalation. This is discussed in confidential appendix C. This leads to the following further revisions to SP AusNet's proposed capex (see Table 3.13 and Table 3.14).

* + - * 1. AER approved capital expenditure by category over the 2013–17 access arrangement period with adjustments for the AER approved labour and material escalation ($million, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | 2013 | 2014 | 2015 | 2016 | 2017 |
| Mains replacement | 16.4 | 15.1 | 13.4 | 11.3 | 12.4 |
| Residential connections | 33.2 | 33.2 | 33.1 | 32.8 | 32.8 |
| Commercial/ industrial connections | 3.0 | 3.1 | 3.1 | 3.1 | 3.2 |
| Residential meter replacement | 4.8 | 5.1 | 4.5 | 4.3 | 4.2 |
| Commercial/ industrial meter replacement | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 |
| Augmentation | 6.1 | 5.9 | 6.8 | 1.0 | 2.2 |
| IT | 13.6 | 13.0 | 6.9 | 7.5 | 7.6 |
| SCADA | 0.9 | 0.8 | 0.9 | 0.8 | 0.8 |
| Other | 2.5 | 4.2 | 4.8 | 4.7 | 3.7 |
| Gas Extensions-NGEP | 1.5 | 1.0 | 0.1 | 0.1 | 0.0 |
| Capital overheads | 11.6 | 11.6 | 11.6 | 11.6 | 11.6 |
| Total gross capital expenditure | 94.5 | 94.0 | 86.2 | 78.3 | 79.7 |
| Customer contributions | 2.8 | 2.9 | 3.0 | 3.1 | 3.1 |
| Government contributions | 1.0 | 2.7 | 1.0 | 1.0 | 1.1 |
| Total net capital expenditure | 90.7 | 88.4 | 82.2 | 74.2 | 75.5 |

Source: AER analysis.

* + - * 1. Comparison of AER approved including labour and material escalation adjustment and SP AusNet capital expenditure over the 2013-17 access arrangement period ($million, 2012)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | SP AusNet proposed | AER approved excluding AER labour and material escalation adjustments | AER approved including AER labour and material escalation adjustments | Variance between SP AusNet proposed and AER approved including labour and material escalation adjustment |
| Mains replacement | 141.1 | 73.4 | 68.6 | -51.4% |
| Residential connections | 182.7 | 176.4 | 165.1 | -9.6% |
| Commercial/ industrial connections | 19.7 | 16.6 | 15.6 | -20.7% |
| Residential meter replacement | 23.7 | 23.7 | 22.8 | -3.6% |
| Commercial/industrial meter replacement | 5.2 | 5.2 | 5.0 | -4.3% |
| Augmentation | 23.1 | 23.1 | 22.0 | -4.9% |
| IT | 55.3 | 48.6 | 48.6 | -12.1% |
| SCADA | 4.5 | 4.5 | 4.2 | -5.0% |
| Other | 24.4 | 20.8 | 19.9 | -18.6% |
| Gas Extensions-NGEP | 2.8 | 2.8 | 2.8 | 0.0% |
| Capital overheads | 68.2 | 57.9 | 57.9 | -15.1% |
| Total gross capital expenditure | 550.8 | 453.1 | 432.6 | -21.4% |
| Customer contributions | 15.5 | 14.9 | 14.9 | -3.6% |
| Government contributions | 6.8 | 6.8 | 6.8 | 0.0% |
| Total net capital expenditure | 528.5 | 431.5 | 411.0 | -22.2% |

Source: AER analysis

* 1. Equity raising costs

Equity raising costs are incurred when network service providers are required to raise equity. The AER's equity raising cost benchmark allowance allows for costs in the form of dividend reinvestment plan costs and seasoned equity offerings. 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).

To determine benchmark equity raising costs the AER relies on a method that was initially discussed in a 2007 Allen Consulting Group (ACG) report.[[191]](#footnote-191) This method was amended in the AER's decisions for the ACT, NSW and Tasmanian electricity service providers.[[192]](#footnote-192) The AER has applied this method in subsequent decisions for other electricity and gas service providers.[[193]](#footnote-193) This approach has recently been further refined, as discussed and applied in the Powerlink final decision and in this draft decision.[[194]](#footnote-194)

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.[[195]](#footnote-195) 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[[196]](#footnote-196) and ACG,[[197]](#footnote-197) and subsequently reviewed.[[198]](#footnote-198)

The total benchmark equity raising cost is then amortised over the weighted average standard asset life of SP AusNet'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 SP AusNet, shown in Table 3.16. The AER will update this analysis again for the final decision based on the final capex allowance to be determined at that time.

SP AusNet used the AER’s preferred method of calculating equity raising costs based on the ACG report, which determined that no equity raising costs were required.[[199]](#footnote-199) However, the proposal 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 SP AusNet made its proposal).

After considering the equity raising costs proposed by Powerlink for its 2012–17 access arrangement, the AER modified its standard 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.[[200]](#footnote-200) 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 reflect the external equity that is forecast to be required.[[201]](#footnote-201) The AER still considers this updated method is more appropriate and provides a better benchmark for equity raising costs. The AER will therefore require SP AusNet to incorporate this adjustment.

Also, SP AusNet's used a dividend payout ratio of 100 per cent.[[202]](#footnote-202) 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.

Based on the AER’s method, the cash flow analysis calculated in the PTRM for SP AusNet's benchmark equity raising cost is shown in table 3.15 and table 3.16. Table 3.15 sets out (in nominal terms) the derivation of the required new equity for the network service provider. The second part of the cashflow analysis (in real terms) derives the benchmark allowance for raising this equity and is set out in Table 3.15. These tables demonstrate that SP AusNet does not require an equity raising cost allowance because based on the level of forecast capex.

Benchmark equity raising costs

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

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

|  |  |  |
| --- | --- | --- |
| Cash flow analysis | Total ($million, nominal) | Notes |
| Dividends | 50.70 | Set to distribute imputation credits assumed in the PTRM (70 per cent). |
| Dividends reinvested | 15.21 | Availability of reinvested dividends, capped at 30% dividends paid. |
| Capex funding requirement | 436.25 | Forecast capex funding requirement (including half year WACC adjustment). |
| Debt component | 195.68 | Set to equal 60% of annual change in RAB. |
| Equity component | 240.58 | Residual of capex funding requirement and debt component. |
| Retained cash flow available for reinvestment | 306.39 | Exclude dividends reinvested. |
| Equity required | -65.82 | Equals equity component less retained cash flows. |

Source: AER analysis.

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

|  |  |  |
| --- | --- | --- |
| Cash flow analysis | Total ($million, 2012–13) | Notes |
| Equity component | 223.21 | Residual of capex funding requirement and debt component. |
| Retained cash flow available for reinvestment | 286.27 | Exclude dividends reinvested. |
| Equity required | -63.06 | Equals equity component less retained cash flows. |
| Dividends reinvested | 13.94 | 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 regulatory control period. |

Source: AER analysis

* + 1. Concordance table between SP AusNet's categories of expenditure and the AER's driver categories

For the purposes of analysis the AER has categorised SP AusNet's categories of expenditure into driver categories. The AER driver categories are the same categories used by the Essential Services Commission of Victoria in assessing the Victorian gas distribution businesses' 2008–12 access arrangement proposals. Using these driver categories facilitates the analysis of expenditure across access arrangements periods.

Table 3.17 sets out the concordance between SP AusNet's categories of expenditure, which are used in SP AusNet's Access Arrangement Proposal, and the AER's driver categories, which have been applied in this attachment.

* + - * 1. Concordance between SP AusNet's categories of expenditure and the AER's driver categories

|  |  |
| --- | --- |
| SP AusNet Proposal-Category of Expenditure | AER driver categories |
| Customer Initiated | Residential connections |
|  | Commercial/industrial connections |
| Augmentation / Reinforcement | Augmentation |
| Network Integrity | Other |
| Reactive Asset Replacement | Mains replacement |
| Mains Replacement | Mains replacement |
| Meter Replacement | Residential meter replacements |
|  | Commercial/industrial meter replacements |
| SCADA & Innovation | SCADA |
| IT | IT |
| General | Other |
|  | Overheads |
| TOTAL | Gross Total |
|  | Customer contributions |
|  | Government contributions |
|  | Net total |

* 1. Revisions

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

Amendment 3.1:

Make all necessary amendments to reflect the AER’s draft decision on capital expenditure by asset class over the earlier access arrangement period, as set out in Table 3.1.

Amendment 3.2:

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 3.2.

1. Rate of return

The rate of return is an input to the building block approach that the Australian Energy Regulator (AER) uses to determine total revenue for each regulatory year of the access arrangement period. The rate of return is to be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.[[203]](#footnote-203)

The AER calculated SP AusNet's return on capital building block by multiplying the rate of return with the value of its projected capital base. Consistent with SP AusNet's access arrangement proposal and previous AER gas decisions, the AER adopted a rate of return that is based on a nominal vanilla weighted average cost of capital (WACC) formulation.

* 1. Draft decision

The AER does not approve SP AusNet'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 is commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.[[204]](#footnote-204)

SP AusNet'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. SP AusNet'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 SP AusNet's proposed rate of return method, and the AER's draft decision method in this draft decision, are to be applied 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 used in both the cost of equity and cost of debt. SP AusNet'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 SP AusNet with a reasonable opportunity to recover at least the efficient costs of capital financing. Consequently, the AER expects SP AusNet 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 SP AusNet'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[[205]](#footnote-205)
* 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 SP AusNet'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 4.3.2.

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 SP AusNet's rate of return (nominal)

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter |  | SP AusNet 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 |  | 10.79% 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; SP AusNet, 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).[[206]](#footnote-206) However, the rate of return in this decision for SP AusNet 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 SP AusNet 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.[[207]](#footnote-207) Hence, the AER and SP AusNet agree that this reduction reflects prevailing conditions in the market for funds and the risks involved in providing reference services. This provides the AER with a degree of comfort that a fall in the overall rate of return, in itself, is not unreasonable.

SP AusNet'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 SP AusNet 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
* Fixed principles on the rate of return in SP AusNet's access arrangement
* 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 in the interpretation of relevant provisions of the NGR in recent Tribunal decisions.

Rule 87 of the NGR states:

1) The rate of return on capital is to be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.

2) In determining a rate of return on capital:

a) it will be assumed that the service provider:

i) meets benchmark levels of efficiency; and

ii) uses a financing structure that meets benchmark standards as to gearing and other financial parameters for a going concern and reflects in other respects best practice; and

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:

* Rule 87(1) describes the objective in determining the WACC but not how to achieve the objective.
* Rule 87(2) describes how to achieve the objective, including through a well accepted approach (such as the WACC) and through a well accepted financial model (such as the CAPM).
* Rule 87(1) informs the selection of input parameters for the well accepted approach and well accepted financial model. 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 Australian Competition Tribunal's (Tribunal) position in two recent decisions: the ATCO (formerly WA Gas Networks) matter and the DBNGP matter.[[208]](#footnote-208) It is also consistent with the AER's approach in previous decisions.[[209]](#footnote-209) The AER thus applied this approach in making its draft decision on SP AusNet's rate of return.

Rule 87 is a full discretion provision. This means the AER may, but is not bound to, approve SP AusNet's proposed rate of return if that rate complies with, and is consistent with, the NGL's and NGR's requirements and criteria. The AER has the discretion to withhold its approval it considers a preferable alternative exists that complies with, and is consistent with, those requirements and criteria. Further, if an access arrangement contains a fixed principle on the rate of return then that fixed principle is binding on the AER and the service provider for the period for which the principle is fixed.[[210]](#footnote-210)

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

* the matters that the NGL and NGR require an access arrangement to include
* the service provider's access arrangement proposal, and
* the AER's reasons for refusing to approve that proposal.[[211]](#footnote-211)

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) 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.[[212]](#footnote-212) Either the AER's approval or withholding of its approval of SP AusNet's proposed rate of return—and in the case of the latter the AER's determination of a preferable rate of return—is an AER economic regulatory function or power. The national gas objective is:

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

In addition, the AER must account for the revenue and pricing principles when approving or making the parts of an access arrangement that relate to a reference tariff.[[213]](#footnote-213) The rate of return is such a part, so the AER must account for the following[[214]](#footnote-214):

* 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.
  + 1. Selection of well accepted approach and model

In its access arrangement proposal, SP AusNet proposed the WACC approach, weighted 40 per cent to equity and 60 per cent to debt. SP AusNet 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 SP AusNet'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 SP AusNet to determine the cost of equity and debt are also well accepted.[[215]](#footnote-215)

* + 1. Fixed principles on the rate of return

In accordance with r. 99(4)(a) of the NGR, the AER sought and received SP AusNet’s consent to revoke the fixed principle in clause 7.2(4) of its 2008–2012 access arrangement. The fixed principle requires that the return on capital building block is calculated using a real (post tax) rate of return. In contrast, the AER’s standard PTRM calculates the return on capital building block using a nominal post tax rate of return. SP AusNet's access arrangement proposal used the AER’s standard PTRM for modelling its revenue requirements, and accordingly proposed to apply a nominal rate of return for the purposes of calculating the return on capital. However, the NGR requires that fixed principles included in SP AusNet’s access arrangement are binding on both SP AusNet and the AER for the period over which they are fixed.[[216]](#footnote-216) Revoking the fixed principle removes the inconsistency between SP AusNet’s fixed principle and its access arrangement proposal. Accordingly, the AER revokes the fixed principle in clause 7.2(4) of SP AusNet's 2008-12 access arrangement.

* + 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 (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 SP AusNet's proposed approach for calculating the risk free rate for the cost of debt but not the cost of equity. (SP AusNet provided the AER with an averaging period on a confidential basis.) The approach 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.[[217]](#footnote-217) 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[[218]](#footnote-218) 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.[[219]](#footnote-219) 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.[[220]](#footnote-220)

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 SP AusNet's proposed MRP of 6 per cent[[221]](#footnote-221). 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.[[222]](#footnote-222)

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.[[223]](#footnote-223) 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 SP AusNet.

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.[[224]](#footnote-224) 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.[[225]](#footnote-225) Prior to the implementation of this approach in a final decision, however, the Tribunal released its decision for the Envestra and APT Allgas reviews.[[226]](#footnote-226) 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.[[227]](#footnote-227) 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.[[228]](#footnote-228) These decisions upheld the use of the ‘bond-yield approach’ adopted by the ERA.[[229]](#footnote-229) 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.[[230]](#footnote-230) The Tribunal did, however, direct the ERA to amend the simple averaging process used to aggregate these bond yields.[[231]](#footnote-231) The Tribunal also provided guidance on the relevance of various criteria and the use of a more complex weighted average.[[232]](#footnote-232) Such a weighted average was implemented by the ERA on remittal.[[233]](#footnote-233)

If the bond-yield approach (with the weighting method adopted in the ERA’s revised decision) was applied to SP AusNet, the DRP would be 2.72 per cent.[[234]](#footnote-234) This is below the DRP of 3.82 per cent derived using the extrapolated Bloomberg fair value curve (as per SP AusNet’s proposed method).[[235]](#footnote-235)

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 June 2012 | 205 | Fixed | 10 | 5.95 | 2.96 |
| Powercor Australia | 19 April 2012 | 200 | Fixed | 5 | 5.80 | 2.51 |
| United Energy Distribution | 3 April 2012 | 200 | Fixed | 5 | 6.50 | 2.95 |
| ETSA Utilities | 1 March 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.

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)[[236]](#footnote-236). 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 SP AusNet'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, SP AusNet, 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.[[237]](#footnote-237) The other Victorian gas distribution service providers also proposed this approach. APA GasNet held a similar concern but proposed a different approach.[[238]](#footnote-238) APA GasNet proposed a higher MRP (8.5 per cent) 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.[[239]](#footnote-239)

On the other hand, BHP Billiton submitted that the MRP is between 5-6 per cent.[[240]](#footnote-240) 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.[[241]](#footnote-241) The 5 year term was adopted by the ERA in its access arrangement decision for the Dampier to Bunbury Natural Gas Pipeline (DBNGP).[[242]](#footnote-242) The Tribunal found no error in ERA's position on these matters.[[243]](#footnote-243) 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, SP AusNet proposed adopting the extrapolated Bloomberg fair value curve to estimate the DRP.[[244]](#footnote-244) This results in a DRP of 3.82 based on current market data.[[245]](#footnote-245) The other Victorian gas service providers also proposed this approach.[[246]](#footnote-246) BHP Billiton considered this method was appropriate but also considered there was merit in the AER exploring alternative methods.[[247]](#footnote-247)

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).[[248]](#footnote-248) 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.[[249]](#footnote-249) Under this approach the DRP is estimated by averaging observed bond yields that meet certain criteria.[[250]](#footnote-250) The Tribunal did, however, direct the ERA to amend the simple averaging process used to aggregate these bond yields.[[251]](#footnote-251) The Tribunal also provided guidance on the relevance of various criteria and the use of a more complex weighted average.[[252]](#footnote-252) Such a weighted average was implemented by the ERA on remittal.[[253]](#footnote-253) If the bond-yield approach (with the weighting method adopted in the ERA’s re-determination) was applied to SP AusNet, the DRP would be 2.72 per cent.[[254]](#footnote-254)

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. However, the AER does not expect to implement any new method in time for SP AusNet'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.[[255]](#footnote-255)

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.[[256]](#footnote-256)

Taking SP AusNet's proposal and the submissions from stakeholders together, the AER is satisfied that the rate of return in this draft decision (subject to updating) is commensurate with prevailing conditions in the market for funds and the risks involved with providing reference services.

* + 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.[[257]](#footnote-257)

SP AusNet proposed to use the Sharpe Lintner CAPM to determine the cost of equity.[[258]](#footnote-258)

SP AusNet, 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.[[259]](#footnote-259) The AER accepts SP AusNet'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 SP AusNet's proposed method for estimating the risk free rate for the cost of debt.[[260]](#footnote-260) The AER does not agree with SP AusNet's proposed method for estimating the risk free rate for the cost of equity.[[261]](#footnote-261) 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)[[262]](#footnote-262)
* the RBA advised 'CGS yields are the most appropriate measure of a risk free rate in Australia'.[[263]](#footnote-263)

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.[[264]](#footnote-264)
* 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.[[265]](#footnote-265)

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'.[[266]](#footnote-266)

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.[[267]](#footnote-267)

The spreads between CGS yields and the yields on other Australian dollar denominated securities have widened in recent years.[[268]](#footnote-268) 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.[[269]](#footnote-269)

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.[[270]](#footnote-270)

Further, the RBA and Australian Treasury advised the ACCC on two occasions that the CGS market is liquid and functioning well.[[271]](#footnote-271) The ACCC sought the first set of advice (received August 2007)[[272]](#footnote-272) 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.[[273]](#footnote-273) On the other hand, both suggested indexed CGS yields were unlikely to provide an appropriate proxy for the real risk free rate.[[274]](#footnote-274) The AER subsequently ceased using indexed CGS to determine inflation expectations.[[275]](#footnote-275)

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[[276]](#footnote-276)
* repurchase ('repo') margins. The 'repurchase agreement rates on CGS do not indicate any degree of 'tightness''.[[277]](#footnote-277)

A recent speech by Rob Nicholl, chief executive officer of the AOFM, also supported the conclusion that the CGS market is liquid.[[278]](#footnote-278) His comments suggested the AOFM has confidence that the CGS market is "resilient and highly functional".[[279]](#footnote-279)

Further, the Australian Government has a policy of issuing sufficient CGS to ensure liquidity in the market.[[280]](#footnote-280) 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.[[281]](#footnote-281)

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.[[282]](#footnote-282)

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.[[283]](#footnote-283)

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 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.[[284]](#footnote-284)[[285]](#footnote-285)

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.[[286]](#footnote-286)

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, 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.

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.[[287]](#footnote-287)

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 SP AusNet agreed the CAPM is an appropriate model for estimating the cost of equity. Inputs to a model must be appropriate for using in that model,[[288]](#footnote-288) 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).[[289]](#footnote-289)

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.[[290]](#footnote-290)

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.[[291]](#footnote-291)

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.[[292]](#footnote-292)

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.[[293]](#footnote-293) 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).[[294]](#footnote-294)

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.[[295]](#footnote-295) 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.[[296]](#footnote-296)

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[[297]](#footnote-297)—literally, the first market price on the first day of the regulatory period.[[298]](#footnote-298) 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.[[299]](#footnote-299)

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.[[300]](#footnote-300)

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.[[301]](#footnote-301)

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[[302]](#footnote-302) 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 SP AusNet’s proposal for an MRP of 6 per cent. The AER notes the 6 per cent MRP was proposed in line with the 20 year historical average risk free rate of 5.99 per cent. SP AusNet also suggested an alternative approach of using a prevailing risk free rate with a forward looking measure of the MRP[[303]](#footnote-303). In this section, by applying the approach set out in section 4.2.4, 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.[[304]](#footnote-304) 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.[[305]](#footnote-305)

A few studies indicated there is no better forecast of excess returns than the historical average.[[306]](#footnote-306) 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.[[307]](#footnote-307)

The long term averages of historical excess returns, adjusted to incorporate an imputation credit utilisation rate (theta) of 0.35[[308]](#footnote-308), 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).[[309]](#footnote-309)

* + - * 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.[[310]](#footnote-310)

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).[[311]](#footnote-311)
* Shorter time series are more vulnerable to influence by the current stage of the business cycle or other (one-off) events. [[312]](#footnote-312)

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.[[313]](#footnote-313)

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.[[314]](#footnote-314) 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.[[315]](#footnote-315) According to Damodoran (2011), survivorship bias is created by estimating historical returns on only stocks that have survived.[[316]](#footnote-316) Historical data excludes negative return stocks that no longer exist, which naturally results in higher return estimates. McKenzie and Partington[[317]](#footnote-317) and Joye[[318]](#footnote-318) supported this view. The AER notes this upward bias is a relevant consideration because the various Australian stock indexes exclude the failed stocks.[[319]](#footnote-319) 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.[[320]](#footnote-320) 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.[[321]](#footnote-321)

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.[[322]](#footnote-322) 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.[[323]](#footnote-323)

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 |
| ERA | March 2012 (draft decision) | Electricity | 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 |

Source: ACCC,[[324]](#footnote-324) ERA,[[325]](#footnote-325) ESC,[[326]](#footnote-326) QCA.[[327]](#footnote-327) IPART[[328]](#footnote-328), ESCOSA[[329]](#footnote-329).

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%.[[330]](#footnote-330)

The Tribunal handed down a similar decision in its review of ATCO’s (formerly WA Gas Network’s) and DBNGP’s access arrangements.[[331]](#footnote-331) 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,[[332]](#footnote-332) 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.[[333]](#footnote-333)

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.[[334]](#footnote-334)
* Capital Research (2006) found the average MRP adopted across a number of brokers was 5.09 per cent.[[335]](#footnote-335)
* 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.[[336]](#footnote-336)

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.[[337]](#footnote-337)
* 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.[[338]](#footnote-338)
* 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.[[339]](#footnote-339)
* 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.[[340]](#footnote-340)
* 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.[[341]](#footnote-341)

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.[[342]](#footnote-342) 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 SP AusNet in the context of CGS yields being at an historical low. The AER and SP AusNet both adopted the Sharpe-Lintner CAPM as the accepted model for determining the cost of equity[[343]](#footnote-343). 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, SP AusNet 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.[[344]](#footnote-344)

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[[345]](#footnote-345). 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).[[346]](#footnote-346)

SP AusNet 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

SP AusNet suggested the WACC determined by the AER produces a ‘downward biased return on equity’ because the AER adopts an MRP that reflects the long term average and uses a risk free rate that reflects current market conditions.[[347]](#footnote-347) 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.[[348]](#footnote-348) 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.[[349]](#footnote-349) 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).[[350]](#footnote-350) 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.[[351]](#footnote-351) 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

SP AusNet submitted the MRP and the risk free rate have a negative relationship.[[352]](#footnote-352) Its contention was based on a CEG report. 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.[[353]](#footnote-353)

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.[[354]](#footnote-354)

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

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

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.[[357]](#footnote-357)

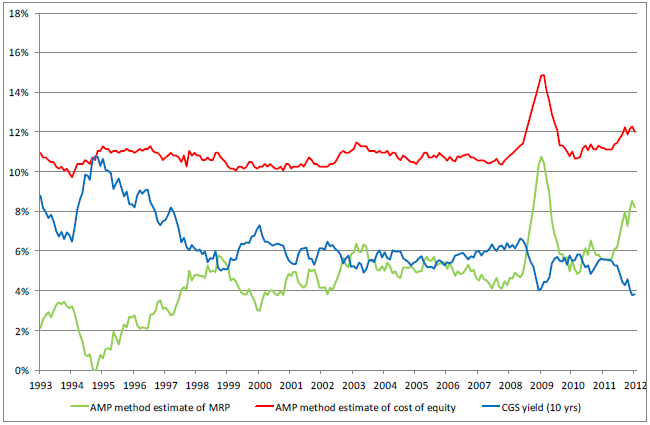
CEG chart based on the AMP method

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).[[358]](#footnote-358) 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[[359]](#footnote-359) and thus generates results showing a stable cost of equity over time.[[360]](#footnote-360) Lally described CEG's chart as being 'predisposed' to the result that it displays.[[361]](#footnote-361) 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.[[362]](#footnote-362)

* + - 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.[[363]](#footnote-363)

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.[[364]](#footnote-364)

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.[[365]](#footnote-365)

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.

SP AusNet proposed an equity beta of 0.8, noting that it had been adopted by the AER in its most recent decision under the NGR for Envestra and that it is consistent with the statement of regulatory intent (SORI).[[366]](#footnote-366) The AER accepts SP AusNet's proposal for an equity beta of 0.8.

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.[[367]](#footnote-367) 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.[[368]](#footnote-368) 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 Energy Users Coalition of Victoria (EUCV) submitted the equity beta for SP AusNet should be 0.65. The EUCV noted that:

* The empirical evidence undertaken during the WACC review implies a beta of 0.55.[[369]](#footnote-369)
* 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.[[370]](#footnote-370)
* 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.[[371]](#footnote-371)

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 SP AusNet with an opportunity to recover at least its efficient costs incurred in providing reference services and meeting regulatory requirements.[[372]](#footnote-372)

* + 1. Debt risk premium

The AER accepts, in principle, SP AusNet's proposed benchmark and method for determining the DRP. The AER, however, has updated SP AusNet's proposed DRP to reflect the indicative averaging period used throughout this draft decision. This results in a DRP of 3.76 per cent.[[373]](#footnote-373) The AER will again update this value for its final decisions based on SP AusNet's final averaging period.

Specifically, the AER accepts SP AusNet'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.[[374]](#footnote-374) This benchmark assumption has been adopted by the AER in previous gas decisions.[[375]](#footnote-375) 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.[[376]](#footnote-376) 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 SP AusNet's proposed approach to establishing the DRP. In particular, the AER accepts SP AusNet'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.[[377]](#footnote-377)

The AER also accepts SP AusNet'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.[[378]](#footnote-378) 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.[[379]](#footnote-379)

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.[[380]](#footnote-380)

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 SP AusNet 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 SP AusNet‘s proposal, the AER has also taken into account the EUCV‘s submission.[[381]](#footnote-381) 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.[[382]](#footnote-382) 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.[[383]](#footnote-383) 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 SP AusNet's proposed methodology for estimating forecast inflation. SP AusNet's proposed methodology is consistent with that adopted by the AER in previous regulatory decisions.

SP AusNet used this methodology and derived an inflation forecast of 2.51 per cent. 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.

SP AusNet proposed a gearing ratio of 60:40 (that is, 60 per cent debt).[[384]](#footnote-384) The AER accepts this gearing ratio because it is supported by relevant available empirical evidence.[[385]](#footnote-385) 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.[[386]](#footnote-386) 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.[[387]](#footnote-387)

* + 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 (5.70-9.08 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 on capital for the access arrangement period, as set out in Table 4.1 of this attachment.

1. Depreciation

When determining the total revenue for SP AusNet, the AER must decide on the depreciation for the projected capital base (or return of capital).[[388]](#footnote-388) Regulatory depreciation is used to model the nominal asset values over the 2013–17 access arrangement period and the depreciation allowance in the total revenue requirement. The AER’s draft decision on SP AusNet’s annual regulatory depreciation allowances is outlined in this attachment.[[389]](#footnote-389) 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 capex
* the remaining economic lives for depreciating existing assets in the opening capital base.
  1. Draft decision

The AER approves SP AusNet's proposal to use the straight-line method to calculate the regulatory depreciation allowance as set out in the post-tax revenue model (PTRM). However, the AER does not approve SP AusNet's proposed regulatory depreciation allowance of $147.8 million ($nominal) for the 2013–17 access arrangement period. This is because of the AER's required adjustments for this draft decision. These include:

* the proposed depreciation approach
* the proposed standard economic lives and remaining economic lives as at 1 January 2013
* proposed depreciation calculation for existing assets in the opening capital base.

The AER does not approve SP AusNet’s proposed depreciation approach. SP AusNet proposed to recover the difference between forecast and actual depreciation from 1998 to 2012 (unrecovered depreciation) over the 2013–17 access arrangement period. The AER considers that SP AusNet's proposed recovery does not meet the requirement of the NGR.[[390]](#footnote-390) To satisfy the NGR, the AER considers that the unrecovered depreciation should be recovered over the remaining economic life of the asset class to which the unrecovered depreciation relates.

With the exception of the 'Land & buildings' asset class, the AER approves SP AusNet'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 for the 2008–12 access arrangement period. Due to land being a non-depreciable asset, the AER considers that the 'Land & buildings' asset class should be split into separate asset classes and be assigned different standard economic lives.

The AER does not accept SP AusNet's proposed depreciation calculation for existing assets in the opening capital base. Due to several errors in its model, SP AusNet's proposed depreciation calculation for existing assets is not arrived at on a reasonable basis, and does not represent the best forecast or estimate possible in the circumstances as required by the NGR.[[391]](#footnote-391) The AER requires SP AusNet to change its depreciation calculation to the AER's standard method for calculating depreciation for existing assets and to establish remaining economic lives for each of its asset classes as at 1 January 2013. This will minimise the risk of future errors. The AER has calculated SP AusNet's remaining economic lives as at 1 January 2013. These remaining economic lives reflect the AER's required change in the proposed depreciation approach and the required adjustment to SP AusNet's opening capital base roll forward (discussed in attachment 2).

The AER approves SP AusNet's proposed remaining economic life as at 1 January 1998 associated with low pressure mains for the 2013–17 access arrangement period. The AER considers that the proposed remaining economic life is consistent with the NGR which allows for changes in the expected economic life of an asset.[[392]](#footnote-392) It is also consistent with the AER's draft decision on forecast capex (discussed in attachment 3).

The AER’s draft decisions regarding other components of SP AusNet’s proposal also affect the calculation of the regulatory depreciation allowance. These are discussed in other attachments and include:

* the projected opening capital base (attachment 2)
* forecast net capex (attachment 3)
* forecast inflation (attachment 4).

The AER's draft decision on SP AusNet's total regulatory depreciation allowance over the 2013–17 access arrangement period is $125.5 million ($nominal) as shown in table 5.1. This represents a reduction of $22.3 million ($nominal) or 15.1 per cent of SP AusNet's proposed total regulatory depreciation allowance.

* + - * 1. AER's draft decision on SP AusNet's depreciation allowance   
           ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Straight-line depreciation | 48.4 | 54.6 | 60.9 | 66.0 | 71.3 | 301.1 |
| Less: indexation on opening capital base | 31.5 | 33.5 | 35.3 | 37.0 | 38.3 | 175.7 |
| Regulatory depreciation | 16.9 | 21.1 | 25.5 | 29.0 | 33.0 | 125.5 |

Source: AER analysis.

* 1. SP AusNet's proposal

SP AusNet proposed a forecast regulatory depreciation allowance of $147.8 million ($nominal) over the 2013–17 access arrangement period, as set out in . To calculate the depreciation allowance, SP AusNet proposed:[[393]](#footnote-393)

* to recover the difference between forecast and actual depreciation from 1998 to 2012 over the 2013–17 access arrangement period
* standard economic lives for depreciating new assets associated with forecast capex. SP AusNet did not propose any new asset classes for the 2013–17 access arrangement period[[394]](#footnote-394)
* to account for the remaining economic lives for each year's capex within each asset class separately. Therefore, under this approach, SP AusNet did not propose any remaining economic lives for each asset class as at 1 January 2013 for depreciating existing assets in the opening capital base
* to reduce the remaining economic life of assets as at 1 January 1998 associated with low pressure mains (part of the 'Distribution pipelines' asset class) from 2013.
  + - * 1. SP AusNet's proposed depreciation allowance ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Straight-line depreciation | 59.9 | 65.8 | 64.7 | 69.0 | 71.9 | 331.3 |
| Less: indexation on opening capital base | 32.5 | 34.6 | 36.6 | 38.9 | 40.9 | 183.5 |
| Regulatory depreciation | 27.5 | 31.2 | 28.1 | 30.1 | 31.0 | 147.8 |

Source: SP AusNet, Access arrangement information, March 2012, p. 169.

* 1. Assessment approach

In its access arrangement proposal, SP AusNet 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.[[395]](#footnote-395) 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.[[396]](#footnote-396) 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.[[397]](#footnote-397) The AER must also take into account the depreciation schedule approved in the 2008–12 access arrangement period,[[398]](#footnote-398) the NGO and the revenue and pricing principles.[[399]](#footnote-399)

The AER’s discretion under the depreciation criteria is limited.[[400]](#footnote-400) 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[[401]](#footnote-401)
* so that each asset or group of assets is depreciated over the economic life of that asset or group of assets[[402]](#footnote-402)
* 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[[403]](#footnote-403)
* so that (subject to the rules about capital redundancy), an asset is depreciated only once[[404]](#footnote-404)
* so as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs[[405]](#footnote-405)

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.[[406]](#footnote-406)

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.[[407]](#footnote-407) The AER considers that the straight-line method satisfies the depreciation criteria.[[408]](#footnote-408) 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.

SP AusNet used the AER's PTRM to calculate its total revenue requirement over the 2013–17 access arrangement period. However, SP AusNet bypassed the AER's standard depreciation calculations built into the PTRM and applied its proposed depreciation calculation for existing assets in the opening capital base. SP AusNet also did not calculate any remaining economic lives as at 1 January 2013 for its asset classes using its proposed approach. For the reasons outlined in section 5.4.3, the AER has modified SP AusNet's modelling of depreciation for existing assets and changed it to using the AER's standard depreciation calculations. This also allows the AER to calculate SP AusNet's remaining economic lives as at 1 January 2013 for its asset classes.

In assessing SP AusNet's proposed regulatory depreciation allowance, the AER has analysed SP AusNet’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[[409]](#footnote-409)—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: opening capital base (attachment 2), forecast net capex (attachment 3) and forecast inflation (attachment 4). The AER's decision on the required amendments to SP AusNet’s proposed regulatory depreciation allowance 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.[[410]](#footnote-410) The AER's standard method for determining the remaining economic lives is the weighted average method.[[411]](#footnote-411) 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 SP AusNet's regulatory depreciation allowance is $125.5 million ($nominal) over the 2013–17 access arrangement period.

The AER does not approve SP AusNet's proposed regulatory depreciation allowance of $147.8 million ($nominal) for the 2013–17 access arrangement period. This is mainly because SP AusNet's proposed recovery of the unrecovered depreciation over the 2013–17 access arrangement period does not satisfy the NGR.[[412]](#footnote-412)

The AER approves SP AusNet's proposed standard economic lives assigned to each of its asset classes for the 2013–17 access arrangement period (except for the 'Land & buildings' asset class). The AER does not approve SP AusNet's proposed depreciation calculation for existing assets in the opening capital base because it is not consistent with   
the NGR.[[413]](#footnote-413) The AER's adjustment corrects the errors made in SP AusNet's depreciation calculations, and allows the remaining economic lives as at 1 January 2013 to be calculated in the PTRM for depreciating existing assets in the opening capital base.

The AER accepts SP AusNet's proposed reduction from 39 years to 27 years in the remaining economic life associated with low pressure mains to apply from the first year of the 2013–17 access arrangement period.

In addition, the AER has made changes to other building block components of SP AusNet's proposal that impact on the proposed regulatory depreciation allowance.

* + 1. Change of depreciation approach

The AER does not accept SP AusNet’s proposed depreciation approach. The AER considers that SP AusNet’s adjustment for the unrecovered depreciation is not consistent with the NGR.[[414]](#footnote-414) To satisfy the requirement of the NGR, the AER requires SP AusNet to change its depreciation approach.

Unrecovered depreciation

SP AusNet’s proposed depreciation allowance includes an amount of $8.9 million ($nominal) for what it termed 'unrecovered depreciation'.[[415]](#footnote-415) SP AusNet submitted that this amount represents the difference between historical actual depreciation and forecast depreciation allowed by the ESC over the course of the last 15 years (1998–2012).[[416]](#footnote-416) SP AusNet proposed that the uncovered depreciation be added into its proposed depreciation allowance calculated for the 'Distribution pipelines' asset class over the 2013–17 access arrangement period.[[417]](#footnote-417) SP AusNet noted that its proposed approach accords with the NGR[[418]](#footnote-418) which states that the depreciation schedule should allow for the service provider's reasonable needs for cash flow.[[419]](#footnote-419)

In calculating the unrecovered depreciation, SP AusNet made several modelling errors. These include not deducting asset disposals from the capex amounts, and inputting asset disposal and capex amounts that are inconsistent with the capital base roll forward model (RFM). As a result of these errors, the AER considers that SP AusNet's proposed unrecovered depreciation calculation is not arrived at on a reasonable basis nor does it produce the best forecast or estimate possible in the circumstances as required by the NGR.[[420]](#footnote-420) After correcting these errors, the AER has calculated the unrecovered depreciation to be $7.2 million ($nominal). The AER considers that SP AusNet's proposed recovery of the shortfall between historical actual depreciation and forecast depreciation for the 1998–2012 period over the 2013–17 access arrangement period should be rejected. Instead, for the reasons discussed below, the AER considers the amount should be recovered over a much longer period of 54.1 years in order to satisfy the NGR.[[421]](#footnote-421)

The NGR requires the AER to apply the depreciation approach set out in the 2008–12 access arrangement for the purpose of determining the opening capital base at the start of the   
2013–17 access arrangement. The NGR states that the depreciation allowance over an earlier access arrangement is to be calculated according to the provisions of that access arrangement governing the calculation of depreciation.[[422]](#footnote-422) Moreover, the AER must take into account previous depreciation schedules approved in the transitional access arrangement.[[423]](#footnote-423)

SP AusNet's opening capital base as at 1 January 2013 has been determined by rolling forward the capital base, adding for actual capex (net of any disposals, capital contributions or redundant assets), subtracting forecast allowed depreciation and adding an inflationary adjustment. SP AusNet, in conducting this roll forward, has recognised that it was bound by the forecast depreciation approach set out in the 2008–12 access arrangement.

If SP AusNet was allowed to recover its proposed unrecovered depreciation in the 2013–17 access arrangement period, it would effectively be undoing the way the capital base was rolled forward in the past. By the end of the 2013–17 access arrangement period it would be as if the capital base had always been depreciated based on actual, rather than forecast, capex. The AER considers that SP AusNet's proposal effectively circumvents the forecast depreciation approach set out in the previous access arrangements. Based on the NGR, the AER considers that SP AusNet's proposed use of actual depreciation is not consistent with the earlier access arrangements and therefore should be rejected.[[424]](#footnote-424)

SP AusNet did not provided any reason as to why any difference between forecast and actual depreciation should be accounted for over five years of the 2013–17 access arrangement period. In this regard, the AER considers SP AusNet's proposed recovery is not consistent with the NGR that requires the depreciation schedule allow for adjustments reflecting changes in the expected economic life of a particular asset.[[425]](#footnote-425) SP AusNet has not proposed to change the expected economic life for 'Distribution pipelines', the asset class to which the unrecovered depreciation has been applied. The (revised) $7.2 million ($nominal) is also a net amount that has been calculated over the last 15 years, yet SP AusNet is proposing this amount be returned over the next five years. The AER does not consider that the proposed unrecovered depreciation reflects any changes in the standard economic life of the 'Distribution pipelines' asset class. The AER considers a much longer life of 54.1 years would be more appropriate, based on a weighted average life of the 'Distribution pipelines' capex to which the unrecovered depreciation relates.

Further, the AER considers that SP AusNet's proposal to recover the unrecovered depreciation over five years of the 2013–17 access arrangement period is at odds with its proposed forecast depreciation approach for the roll forward of the capital base to 1 January 2018. For the 2018–22 access arrangement period, SP AusNet has proposed that the roll forward of the capital base over the 2013–17 access arrangement period be based on the approved forecast depreciation approach.[[426]](#footnote-426) The AER has accepted this proposal (this is discussed in attachment 2).

The AER does not agree that SP AusNet's proposed recovery of unrecovered depreciation is supported by the NGR regarding the service provider's reasonable cash flow needs.[[427]](#footnote-427) SP AusNet has not provided any reasoning on how its proposed recovery would allow for its reasonable cash flow needs. The NGR refers to recovery of financing, non-capital and other costs.[[428]](#footnote-428) These costs are already covered by the building block components. The AER has also determined that the proposed recovery is not material (at less than one per cent of the proposed total revenues over the 2013–17 access arrangement period). Accordingly, this does not appear to be a matter of reasonable cash flow needs. While the impact on revenues is not material, the AER considers that SP AusNet's proposed approach does not satisfy the NGR (discussed above)[[429]](#footnote-429) and this should be the primary consideration.

Based on the above considerations, the AER concludes that the unrecovered depreciation be recovered over 54.1 years, rather than the 5 years proposed by SP AusNet. However, this issue becomes irrelevant if depreciation is modelled using the AER's standard approach as discussed below. This is because the unrecovered depreciation amount would be picked up in the opening values of the capital base as at 1 January 2013 and would be depreciated over the remaining economic lives of the relevant asset classes.

* + 1. Standard economic lives

With the exception of the 'Land & Buildings' asset class, the AER approves SP AusNet's proposed standard economic lives assigned to each of 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 for the 2008–12 access arrangement period.[[430]](#footnote-430) SP AusNet did not propose any new asset classes for the 2013–17 access arrangement period.[[431]](#footnote-431)

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. However, consistent with the ESC's decision for rolling forward the capital base to 2012, the AER approves SP AusNet'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. Neither SP AusNet nor the AER has sufficient information to accurately allocate the residual asset value from 2013. However, SP AusNet has submitted that it considers its current land holdings to be immaterial. On this basis, 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 economic life to land (assigned a term of 'n/a' for modelling purposes) in the capital base roll forward model (RFM) and the PTRM.[[432]](#footnote-432) According to the Australian accounting standards, land is generally not depreciable because land values tend to increase over time due to the limited supply of, and the increasing demand for, land.[[433]](#footnote-433) The Income Tax Assessment Act (ITAA) 1997 excludes land from the definition of a ‘depreciating asset’.[[434]](#footnote-434)

The AER sent an information request to SP AusNet to inquire about a possible split between ‘Land’ and ‘Buildings’ in the opening asset value as at 1 January 2013.[[435]](#footnote-435) In response, SP AusNet 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.[[436]](#footnote-436) It submitted:

SP AusNet’s RAB was established as part of the privatisation process, with the existing asset category ‘land & buildings’ in its current aggregated form. No information was provided at the time that allowed a split between land and buildings either in documentation or models from that period. Subsequently, there has been no capital expenditure on land since privatisation.

Therefore, SP AusNet cannot identify what proportion of ‘land & buildings’ value is land.

SP AusNet does not consider current land holdings are likely to be material, reasoning that probably drove the initial aggregation at privatisation. Nonetheless, SP AusNet agrees that going forward it would be appropriate to assign any new land purchases to a new asset class ‘Land’ and treat it as a non-depreciating asset.

Based on SP AusNet’s response, the AER considers that it is reasonable for SP AusNet to maintain ‘Land & buildings’ as a single asset class to roll forward the capital base until 2012. This is consistent with the ESC's decision for the 2008–12 access arrangement period. However, the AER agrees that separate asset classes should apply for the opening capital base as at 1 January 2013 and for any future capex due to the different depreciation treatment applicable to land and buildings.

Although SP AusNet did not forecast any capex for the 'Land & buildings' asset class, 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 40 years. This is consistent with the standard economic life approved by the ESC for the 2008–12 access arrangement period.[[437]](#footnote-437) It is also consistent with the range of standard economic lives for the 'Buildings' asset class approved by the AER in its previous decisions[[438]](#footnote-438)
* 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 SP AusNet's PTRM).

The AER’s draft decision on SP AusNet's standard economic lives for each of its asset classes for the 2013–17 access arrangement period is set out in table 5.3.

* + 1. Remaining economic lives

The AER accepts SP AusNet's proposed reduction in the remaining economic life as at 1 January 1998 associated with low pressure mains to apply from the first year of the   
2013–17 access arrangement period. The AER considers that the reduced remaining economic life is consistent with the NGR.[[439]](#footnote-439) It is also consistent with the AER's draft decision on forecast capex.

The AER does not accept SP AusNet's proposed depreciation calculation for existing assets in the opening capital base because it is not consistent with the NGR.[[440]](#footnote-440) The AER requires SP AusNet to change its depreciation calculation to the AER's standard method for calculating depreciation for existing assets, and to calculate remaining economic lives as at 1 January 2013 for each of its asset classes.

Low pressure mains

SP AusNet proposed to reduce the remaining economic life of assets as at 1 January 1998 associated with low pressure mains to apply from the first year of the 2013–17 access arrangement period.[[441]](#footnote-441) This remaining economic life depreciates the opening asset value of low pressure mains as at 1 January 1998. The AER approves SP AusNet's proposal to reduce this remaining economic life from 39 years to 27 years to apply from 2013 onwards. The AER considers that the shortening of the remaining economic life as at 1 January 1998 associated with low pressure mains is consistent with the AER's draft decision on SP AusNet's proposed replacement capex (discussed in attachment 3).

The low pressure mains, along with other mains (medium pressure and high pressure mains) make up the 'Distribution pipelines' asset class. Since the earlier access arrangements, SP AusNet has put in place capex projects to gradually replace low pressure mains with high pressure mains. SP AusNet stated that moving to a high pressure gas network will allow it to improve network safety and reliability by reducing the incidence of leaks.[[442]](#footnote-442) For the 2013–17 access arrangement, SP AusNet also proposed capex to replace low pressure mains with high pressure mains.

Consistent with the AER's draft decision on SP AusNet's proposed forecast replacement capex, the AER considers that the proposed reduction in the remaining economic life as at 1 January 1998 associated with the low pressure mains is appropriate. The AER considers that the proposed remaining economic life is consistent with the NGR,[[443]](#footnote-443) which requires that the depreciation schedule allow for adjustments reflecting changes in the expected economic life of a particular asset. The AER has modelled the price impact of reducing the remaining economic life as at 1 January 1998 associated with low pressure mains in the 2013–17 access arrangement period. The AER considers the price impact from this change to be immaterial (at less than one per cent increase in revenue over the 2013–17 access arrangement period).

In accepting SP AusNet's proposed remaining economic life as at 1 January 1998 associated with low pressure mains, the AER has used it to calculate the remaining economic life as at 1 January 2013 for the 'Distribution pipelines' asset class. This is done by using the 'average depreciation' approach discussed below.

Modelling of remaining economic lives

SP AusNet used the AER's PTRM to calculate depreciation of forecast capex in the 2013–17 access arrangement period. However, SP AusNet bypassed the standard method in the PTRM for calculating depreciation for existing assets in the opening capital base. Instead, SP AusNet applied an alternative approach to depreciate each year's capex spend individually since 1998. As such, there is no remaining economic life for each asset class in SP AusNet’s model as at 1 January 2013. Rather, there are many individual remaining economic lives associated with capex for each regulatory year in the past.

The AER has identified a number of errors in the way SP AusNet calculated depreciation for existing assets. These include the unrecovered depreciation issue discussed in section 5.4.1; consistency issues in individual numbers between the RFM and PTRM; not deducting disposals for the depreciation calculations; and not allowing for the potential for negative net capex. Most of these errors would be overcome by adopting the AER’s standard approach to depreciation set out in the PTRM. As a result of these errors, the AER considers that SP AusNet's proposed depreciation calculation for existing assets is not arrived at on a reasonable basis nor does it produce the best forecast or estimate possible in the circumstances as required by the NGR.[[444]](#footnote-444) Therefore, the AER requires SP AusNet to change its depreciation calculation to the AER's standard method for calculating depreciation for existing assets.

Under the standard method in the AER's PTRM, remaining economic lives for each asset class as at 1 January 2013 are needed to calculate the depreciation for existing assets. The AER has therefore calculated the remaining economic lives for each asset as at 1 January 2013. These remaining economic lives were calculated by dividing the closing asset class values of the capital base as at 31 December 2012 by the average depreciation of these assets for the 2013–17 access arrangement period. This 'average depreciation' approach gives remaining economic lives that deliver the same forecast depreciation allowance as proposed by SP AusNet (subject to certain error corrections discussed above) for the   
2013–17 access arrangement period.[[445]](#footnote-445) The calculation of these remaining economic lives also has the benefit of allowing comparison of SP AusNet's remaining economic lives with those of other distribution businesses.

The AER’s draft decision on SP AusNet's remaining economic lives for each of its asset classes for the 2013–17 access arrangement period is set out in table 5.3.

* + - * 1. AER's draft decision on SP AusNet's standard and remaining economic lives as at 1 January 2013 (years)

|  |  |  |
| --- | --- | --- |
| Asset classes | Standard economic life | Remaining economic life |
| Transmission pipelines | 60 | 24.2 |
| Distribution pipelinesa | 60 | 32.0 |
| Service pipes | 60 | 35.6 |
| Cathodic protection | 60 | 26.5 |
| Supply regulators/Valve stations | 50 | 33.2 |
| Meters | 20 | 11.2 |
| SCADA and remote control | 15 | 11.7 |
| Land | n/a | n/a |
| Buildings | 40 | 25.0 |
| Other - IT | 5 | 5.0 |
| Other - non IT | 5 | 5.0 |

Source: AER analysis.

n/a Not applicable.

(a) In calculating the remaining economic life for the 'Distribution pipeline' asset class, the AER has used SP AusNet's proposed remaining economic life as at 1 January 1998 associated with low pressure mains.[[446]](#footnote-446)

* 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 allowance for the access arrangement period, as set out in table 5.1.

Revision 5.2: Make all necessary amendments to reflect the AER’s draft decision on the proposed depreciation method, as set out in section 5.4.1.

Revision 5.3: Make all necessary amendments to reflect the AER’s draft decision on the proposed depreciation calculation for existing assets, as set out in section 5.4.3.

Revision 5.4: Make all necessary amendments to reflect the AER’s draft decision on the standard economic lives and the remaining economic lives as at 1 January 2013, as set out in table 5.3.

1. Operating expenditure
   1. Draft decision

The AER's draft decision is to not approve a forecast of opex of $272.6 million ($2012) for the 2013–17 access arrangement period for SP AusNet. The AER is not satisfied that SP AusNet's forecast of opex for the 2013–17 access arrangement period reflects opex that complies with the opex criteria and the criteria for forecasts and estimates.[[447]](#footnote-447)

The AER instead considers forecast opex of $237.5 million ($2012) reflects a forecast of opex that complies with the criteria governing opex and the criteria for forecasts and estimates.[[448]](#footnote-448)

Figure 6.1 shows how the AER's draft decision for opex compares to SP AusNet's proposal, its opex in the 2008–12 access arrangement period, and the opex approved by the Essential Services Commission (ESC) for this period. During the current access arrangement period, SP AusNet's actual opex has been on average 16.8 per cent lower than the ESC approved opex.

* + - 1. Comparison of SP AusNet's historical and forecast opex, and AER draft decision ($m, $2012)



Source: SP AusNet's RIN submission. Note that figures from 2011 onwards are forecasts.

Table 6.1 compares the AER's draft decision to SP AusNet's proposal for each year of the 2013–17 access arrangement period.

* + - * 1. Comparison of SP AusNet's proposal, and AER draft decision ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| SP AusNet's proposal | 50.8 | 52.7 | 54.3 | 56.4 | 58.4 | 272.6 |
| AER's draft decision | 45.9 | 46.9 | 47.5 | 48.2 | 49.0 | 237.5 |
| Difference | –4.9 | –5.8 | –6.8 | –8.2 | –9.4 | –35.0 |

Source: AER analysis.

* 1. SP AusNet's proposal
     1. Total opex

SP AusNet proposed total opex of $272.6 million ($2012) for the 2013–17 access arrangement period, a 22 per cent real increase on actual expenditure in the 2008–12 access arrangement period.[[449]](#footnote-449)

Figure 6.2 disaggregates SP AusNet's proposals into six different cost categories:

* base year costs
* labour cost escalation
* materials cost escalation
* network growth
* partial productivity
* step changes
  + - 1. Disaggregation of SP AusNet's proposal ($m, $2012)



Source: SP AusNet's RIN submission.

* + 1. Forecasting methodology

SP AusNet forecast opex using a base year roll forward method.[[450]](#footnote-450) The base year roll forward method uses actual expenditure in a base year as an indication of future operating costs because operating costs are largely recurrent. This base year opex is then adjusted to account for changes in the firm's circumstances that will change operating costs over the forecast period. These adjustments include:

* removing non-recurrent costs from actual expenditure in the base year;
* projecting the base year opex forward using a rate of change formula. The formula states that the change in operating expenditure in real terms is a function of:
* the forecast real increase in input prices (labour and materials); minus
* the expected productivity improvement; plus
* the expected increase in output.
* adding step changes for efficient costs not reflected in the base opex, such as costs due to changes in regulatory obligations and the external operating environment;
* adding other adjustments to the base year.
  + 1. Base year

SP AusNet chose 2011 as the opex base year, being the most recent full financial year for which actual data will be available.[[451]](#footnote-451) SP AusNet has proposed actual base year opex of $44.8 million ($2012).[[452]](#footnote-452) SP AusNet proposed to adjust its base year expenditure for non-recurrent opex items ().[[453]](#footnote-453)

* + - * 1. Base year adjustments proposed by SP AusNet ($m,$2012)

|  |  |
| --- | --- |
|  | SP AusNet Proposed |
| Unadjusted 2011 opex | 44.8 |
| Normalisation of maintenance costs | 1.2 |
| Removal of non-reference services costs | –1.6 |
| SPIMS actuarial adjustment | –0.3 |
| Returning UAFG to benchmark cost level | –0.9 |
| Movement in provisions | 0.0 |
| Expected escalation of base year costs in 2012 | 1.5 |
| Expected opex in 2012 | 44.7 |

Source: SP AusNet's, access arrangement proposal.[[454]](#footnote-454)

* + 1. Rate of Change increase in Opex

Real cost escalation

SP AusNet escalated its opex for expected real cost increases using labour cost increases forecast by BIS Shrapnel and materials cost increases forecast by SKM.[[455]](#footnote-455) SP AusNet escalated its internal labour costs using BIS Shrapnel's forecast increases in average weekly ordinary time earnings for the Victorian electricity, gas and water sector. It escalated contract labour by forecast increases in the Victorian construction sector. Proposed real labour cost increases account for 6.8 per cent of total opex for the 2013–17 access arrangement period.[[456]](#footnote-456)

SP AusNet adjusted its labour cost escalation factors for productivity improvements. SP AusNet forecast productivity gains using industry level data. SP AusNet stated that it delivered significant productivity improvements over the 2008–12 and 2003–07 access arrangement periods and the pace of productivity growth cannot be maintained. It expects productivity gains to be significantly lower in the 2013–17 access arrangement period.[[457]](#footnote-457) SP AusNet forecast productivity growth for the 2013–17 access arrangement period will reduce total opex by 1.9 per cent.[[458]](#footnote-458)

For its operating costs, SP AusNet escalated the materials component by CPI only. For its maintenance costs SP AusNet escalated the materials component by SKM forecasts of network materials price increases. Proposed real materials cost increases account for 0.1 per cent of total opex for the 2013–17 access arrangement period. [[459]](#footnote-459)

Productivity improvements

SP AusNet proposed forecasts of productivity gains developed by Economic Insights. Economic Insights used industry level data to model productivity growth in gas networks. The model was then applied to SP AusNet's specific forecasts of inputs, outputs and environmental characteristics. Economic Insights forecast that SP AusNet can be expected to achieve productivity improvements averaging 0.8 per cent per annum over the 2013–17 access arrangement period (table 6.7).[[460]](#footnote-460)

Network growth

SP AusNet escalated opex for the impact of network growth using a composite forecast growth in customer numbers and energy throughput. The AER predicts that forecast network growth will account for 4.2 per cent of SP AusNet's total opex for the 2013–17 access arrangement period.[[461]](#footnote-461)

* + 1. Step changes

SP AusNet proposed step changes totalling $12.2 million ($2012) over the 2013–17 access arrangement period (table 6.3). Costs related to implementation of the National Energy Customer Framework (NECF) are identified by SP AusNet as the largest forecast step change. Once the NECF is implemented, SP AusNet will incur costs related to its new responsibilities under the framework. The details of the step changes are discussed in section 6.5.4.

* + - * 1. Proposed step changes for SP AusNet ($m, $2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Survey of gas mains and services in drains | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1.1 |
| Changes to heater management | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 |
| Operation fees on CTMs | 0.0 | 0.1 | 0.2 | 0.3 | 0.3 | 0.9 |
| Magnetic tomography inspections | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 |
| Pipe saddle support repairs | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.3 |
| NECF related costs | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 8.0 |
| Carbon tax administration | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 1.2 |
| Total | 2.3 | 2.3 | 2.5 | 2.5 | 2.7 | 12.2 |

Source: SP AusNet's Access arrangement proposal.[[462]](#footnote-462)

* + 1. Other adjustments to forecast opex

SP AusNet also forecasts additional opex for the 2013–17 access arrangement period that are not included in its business as usual opex. These expenditure items were set to zero in the base year for the purposes of forecasting, and need to be added to the base year opex to determine the total opex forecast for the 2013–17 access arrangement period.[[463]](#footnote-463)

* + - * 1. Other adjustments to forecast opex for SP AusNet ($m, $2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Reallocation of SPIMS and overhead costs | 0.9 | 1.0 | 1.0 | 1.3 | 1.3 | 5.5 |
| Change to capitalisation policy | 0.7 | 0.9 | 0.6 | 0.8 | 0.9 | 3.9 |
| Debt and equity raising costs | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 3.7 |
| Total | 2.2 | 2.6 | 2.4 | 2.8 | 3.1 | 13.2 |

Sources: SP AusNet Access arrangement proposal.[[464]](#footnote-464)

* 1. Submissions

The Energy Users Coalition of Victoria (EUCV) provided a submission setting out its concerns regarding the Victorian Distribution businesses' proposals. Whilst the EUCV has some concerns with specific elements of SP AusNet's claimed opex, the EUCV considers that of the three Distribution Businesses (DBs), SP AusNet's proposal was the most reasonable, and the opex claims by the other two DBs are excessive in comparison. The EUCV also provided some specific comments on elements of SP AusNet's proposal:[[465]](#footnote-465)

NECF—The cost of NECF would appear to be high when it is considered that in reality NECF merely reflects what actually occurs – SPA has always had a relationship with customers and the interposing of a retailer between the two would always have added costs. The EUCV is not convinced that the costs SPA claims will actually be incurred.

Carbon administration—SPA also claims an increase in opex to manage the new legislation imposing a price on carbon....the EUCV is not convinced that this requirement will impose the costs claimed.

SPIMS reallocation—SPA has claimed a step increase in relation to the allocation of corporate costs (SPIMS) and other overheads. ... and the EUCV does not consider that a change in corporate policy should result in the opex for a regulated subsidiary increasing by such means.

* 1. Assessment approach

The AER has limited discretion in assessing opex.[[466]](#footnote-466) The AER is required to assess SP AusNet's forecast opex to decide whether it is satisfied that the forecast opex complies with applicable criteria prescribed by the NGL and NGR.[[467]](#footnote-467) The AER must approve each element of SP AusNet’s proposed opex if satisfied it complies with, and is consistent with, the criteria prescribed in the NGL and NGR.

The AER assessed SP AusNet’s proposed opex against the criteria governing opex under r. 91 of the NGR, taking into account the forecasts and estimates criteria under r. 74 of the NGR:[[468]](#footnote-468)

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 SP AusNet’s proposal to comply with requirements of rr. 74 and 91 of the NGR.

As part of its assessment, the AER compared historical expenditure to that proposed by SP AusNet, in order to better understand the key drivers behind SP AusNet’s proposed forecast.

The AER has also taken into consideration any benchmarking studies provided. SP AusNet has submitted a benchmarking report from 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 Deloitte Access Economics' (DAE) on labour cost escalators.

* 1. Reasons for decision

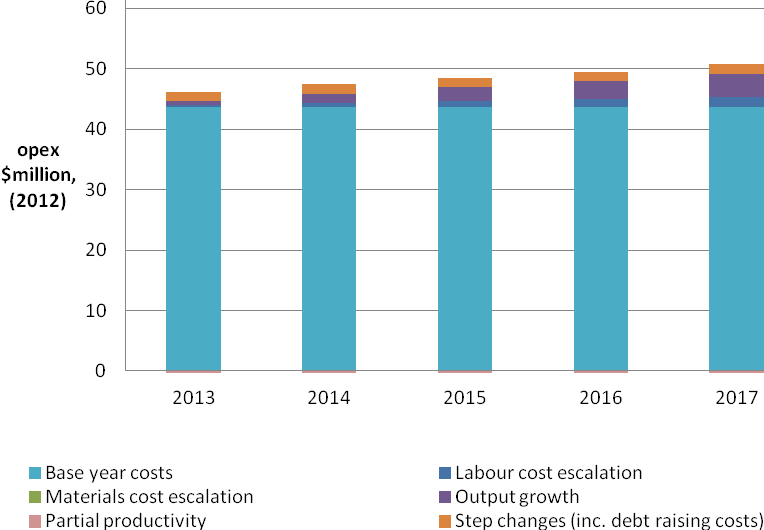
The AER's draft decision is to not accept SP AusNet's forecast opex.

The AER considers that several elements of SP AusNet's forecast opex do not comply with the opex criteria or the criteria for forecasts and estimates.[[469]](#footnote-469) 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

Figure 6.3 disaggregates the AER's draft decision on opex for SP AusNet into different cost categories.

* + - 1. Disaggregation of AER draft decision on SP AusNet opex ($m, $2012)



Source: AER analysis.

* + 1. Forecasting base year opex

SP AusNet has proposed an opex forecast based on a base year roll forward methodology, using 2011 as the base year. 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 that a forecast using a base year of 2011 is 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, SP AusNet was subject to an opex efficiency mechanism. Under the opex efficiency mechanism, 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 efficiency mechanism that applies to SP AusNet would have provided strong incentives for SP AusNet to reduce costs to efficient levels in the 2008–12 access arrangement period.

Adjustments to base year costs

SP AusNet proposed four adjustments to its base year costs. These adjustments were: the normalisation of maintenance expenditure; removal of non-reference service costs; SPI Management Services (SPIMS) actuarial adjustments and removing unaccounted for gas payments from the base. The AER also examined whether SP AusNet has incurred other non-recurrent costs in the base year that reflect the particular circumstances of that year and that would not be expected to recur in the 2013–17 access arrangement period. The AER's draft decision on the adjustments to SP AusNet's base year and the reasons for those adjustments are set out in table 6.5 and discussed below.

* + - * 1. Proposal and AER draft decision on base year adjustments ($m, $2012)

|  |  |  |  |
| --- | --- | --- | --- |
|  | SP Proposed | AER Decision | Difference |
| Unadjusted 2011 opex | 44.8 | 45.3 | 0.5 |
| Normalisation of maintenance costs | 1.2 | – | –1.2 |
| Removal of non-reference services costs | –1.6 | –1.7 | –0.1 |
| SPIMS actuarial adjustment | –0.3 | – | 0.3 |
| Returning UAFG to benchmark cost level | –0.9 | –0.9 | – |
| Movement in provisions | – | –0.6 | –0.6 |
| Expected escalation of base year costs in 2012 | 1.5 | 1.5 | –0.0 |
| Expected opex in 2012 | 44.7 | 43.7 | –1.1 |

Source: AER analysis.

Normalisation of base year maintenance expenditure

In 2011, SP AusNet spent less on maintenance compared to budget. It attributed this variance in part to higher than average rainfall during the first quarter of 2011, continued seasonal rainfall thereafter and a contract structure that was favourable to SP AusNet for water related maintenance activities. As a result, SP AusNet proposed to not use its 2011 maintenance expenditure for the purpose of forecasting maintenance costs in the 2013–17 access arrangement period. It instead proposed to use an average of maintenance expenditure incurred in 2008–10.[[470]](#footnote-470)

The AER's draft decision is not to use an average of maintenance expenditure in 2008–10 for its base year estimate. It considers that this methodology would not result in a total forecast of opex that has been arrived at on a reasonable basis or is the best estimate possible in the circumstances.

In any one year there are likely to be some costs that are higher than business-as-usual and some costs that are lower than business-as-usual. As there are many factors that influence actual opex in any one year in both directions, the AER considers a forecast of total opex is more likely to include estimation errors if a forecast is not reflective of all opex incurred a calendar year. As discussed above, the AER considers that actual opex in 2011 would lead to the best estimate of opex possible in the circumstances.

The AER also notes that SP AusNet is subject to an efficiency carryover mechanism under which SP AusNet retains the benefit of its reduced maintenance expenditure in the 2008–12 access arrangement period. As a result of this underspend, SP AusNet has accrued a carry over which will increase its allowed revenue for the next five years. If SP AusNet is permitted to apply a normalisation of base year maintenance expenditure then SP AusNet will retain the benefits of underspending in the 2008–12 access arrangement period but its maintenance expenditure in the 2013–17 access arrangement period would not be adjusted to reflect lower expenditure. An inconsistent approach between the opex used in the ECM and the opex used in setting base opex would lead to over-compensation for reduced maintenance expenditure in the base year. The AER is not satisfied that this approach consistent with either r. 74(2)(a) or (b) of the NGR.

Removal of non reference service costs

SP AusNet submitted that costs associated with non-reference services are set out in the regulatory accounts but are not included in the building block costs.[[471]](#footnote-471) Accordingly, SP AusNet removed $1.3m from the regulatory accounts opex expenditure. The AER approves SP AusNet's approach in removing this expenditure from the base year.

Unaccounted for Gas (UAFG)

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.

SP AusNet submits that it supports the current Victorian UAFG incentive arrangement providing the benchmark is set appropriately (it submitted that the benchmark set by the ESC was unrealistically low).[[472]](#footnote-472) SP AusNet further submitted that it expected that the AER and the ESC would work together to ensure that any change to the UAFG benchmark in the incentive mechanism for the 2013–17 access arrangement period would be given effect through an appropriate amendment to schedule 1 of the Victorian Gas Distribution System Code.[[473]](#footnote-473)

SP AusNet’s 2008–12 access arrangement is subject to a benchmark in relation to UAFG. This encourages it to reduce UAFG below a pre-determined benchmark. SP AusNet proposed to remove $868 000 ($2012) for expenses relating to UAFG from the base year opex.[[474]](#footnote-474) SP AusNet submitted that in the 2013–17 access arrangement period, UAFG expenditure is assumed to be zero, because actual rates of UAFG are assumed to be equal to the UAFG benchmark, resulting in no financial windfall or penalty.[[475]](#footnote-475)

Under the current Victorian UAFG approach, the Australian Energy Market Operator (AEMO) is responsible for the operational procedures that implement the UAFG benchmark. The current UAFG benchmark is contained in schedule 1 of the Victorian Gas Distribution System Code.

The Victorian Gas Distribution System Code only includes UAFG benchmarks up to 2012.[[476]](#footnote-476) There is no statutory power permitting the AER to set such a benchmark. In the absence of amendments to the Victorian Gas Distribution System Code to include benchmarks beyond 2012, or legislative amendments empowering the AER to set the benchmark, it is not possible for a benchmark to be set.

The AER considers that as it cannot set a benchmark then the Victorian distributors will bear the cost of UAFG in their network. The AER notes that this is consistent with other jurisdictions regulated by the AER. Accordingly, the AER considers that SP AusNet should submit, as part of its revised proposal an opex step change for the UAFG costs SP AusNet will now incur.

The AER notes that actual UAFG expenditure in SP AusNet’s base year was calculated with reference to the ESC benchmarks and is not reflective of the costs for UAFG which SP AusNet may now incur. Accordingly, this forecast expenditure has not been arrived at on a reasonable basis as the AER will not be able to set benchmarks for the 2013–17 access arrangement period. As a consequence it is not the best estimate available in the circumstances and so this forecast expenditure does not comply with r. 74(2) of the NGR. The AER has therefore removed this actual expenditure from SP AusNet’s base year and requests that SP AusNet submit, as part of its revised proposal, a forecast of the UAFG costs it will now incur.

In the event that the Victorian Gas Distribution System Code is amended to include benchmarks beyond 2012 or legislative change allows for the AER to set a benchmark after its final decision has been made, and this materially reduces SP AusNet’s operating expenditure then the AER will need to consider whether a negative change event has occurred.

SPIMS and actuarial adjustment

SPIMS, a related party, provide SP AusNet with management services under a contractual arrangement.[[477]](#footnote-477) SP AusNet removed $338 000 ($2012) from its base year expenditure for costs it paid to SPIMS for an actuarial adjustment pertaining to its defined benefits superannuation contribution.[[478]](#footnote-478)

SP AusNet stated the purpose of the adjustment was to:[[479]](#footnote-479)

... eliminate any actuarial‐based increases or decreases in the SPIMS charge in SP AusNet’s base year operating expenditure, as reflected in the base year’s (2011) regulatory accounts. This elimination is required because the base year is used to set SP AusNet’s forecast operating expenditure benchmark, and inter alia, actuarial gains and losses should net off over time.

The AER agrees actual gains and losses should net out over time and the best forecast of these gains and losses is zero. However, the AER notes SP AusNet was subject to an efficiency incentive and carry-over mechanism in the 2008–12 access arrangement period. The increase in this actuarial adjustment in 2011 has reduced SP AusNet's carryover under the mechanism, penalising SP AusNet for the increase. Consequently the AER considers removing this adjustment from base opex effectively penalises SP AusNet twice for the increase. Accordingly the AER considers the proposed base year adjustment is inconsistent with the efficiency incentive and carry-over mechanism in SP AusNet's 2008–12 Access arrangement.

Movements in provisions

SP AusNet’s opex includes provisions. A provision is a liability of uncertain timing or amount.[[480]](#footnote-480) 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 represents 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 SP AusNet, on the basis that movements in provisions:

* may be used to represent the reported accounts for SP AusNet differently from its underlying economic circumstances
* may prevent and distort the comparison of SP AusNet’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.[[481]](#footnote-481)

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 SP AusNet’s actual opex in accordance with attachment 7.

Expected Opex in 2012

In rolling forward from its 2011 base year SP AusNet noted that the rate of change for 2012 is based on a $1.5 million real increase to operating expenditure that was allowed under the price review for the current regulatory period.[[482]](#footnote-482) SP AusNet also stated that this amount was determined after benchmarks have been adjusted for customer numbers and usage volumes as required by the Efficiency Carryover Mechanism for the 2008–12 access arrangement period.[[483]](#footnote-483)

The AER considers that this approach ensures that the forecast opex complies with rr. 74 and 91 of the NGR. However, as noted in attachment 7 the AER considers the adjustments SP AusNet made to benchmark opex, in particular the weights SP AusNet applied to the growth factors in its calculation of the growth adjustment, were not consistent with SP AusNet's Access arrangement for 2008–12. As such, the AER has applied SP AusNet's proposed methodology, but has adjusted SP AusNet's opex benchmarks in accordance with attachment 7.

* + 1. Rate of Change increase in Opex

Real cost escalators

The AER is not satisfied SP AusNet'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 consideration of the real cost escalators proposed by SP AusNet.

Table 6.6 outlines the impact of the AER’s draft decision on real cost escalators for SP AusNet.

* + - * 1. Impact of real cost escalation ($m, $2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Proposed real cost escalation | 1.2 | 2.4 | 3.7 | 5.0 | 6.5 | 18.7 |
| AER draft decision real cost escalation | 0.3 | 0.7 | 1.1 | 1.3 | 1.7 | 5.1 |
| Difference | –0.8 | –1.7 | –2.6 | –3.6 | –4.8 | –13.6 |

Source: AER analysis.

Productivity improvements

SP AusNet proposed to adjust its labour cost escalation factors for productivity improvements. SP AusNet proposed forecasts of productivity gains which were developed by Economic Insights. Economic Insights used industry level data to model productivity growth in gas networks. The model was then applied to SP AusNet's specific forecasts of inputs, outputs and environmental characteristics. Economic Insights forecast that SP AusNet can be expected to achieve productivity improvements averaging 0.8 per cent per annum over the 2013–17 access arrangement period (table 6.7).[[484]](#footnote-484)

Economic Insights forecast productivity gains to be significantly lower for SP AusNet in the 2013–17 access arrangement period because many of the gains in productivity that have been achieved were one off in nature. Consequently, SP AusNet considered that the recent pace of productivity growth cannot be maintained.

* + - * 1. SP AusNet’s proposed opex partial factor productivity forecasts (per cent)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Productivity improvement | 1.1 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 |

Source: Economic Insights, 2013–2017 Gas Access Arrangement Review—Access Arrangement Information, Appendix 6A, 26 March 2012.

The proposed opex partial factor productivity forecasts reduce SP AusNet's total opex by 1.9 per cent over the 2013–17 access arrangement period.[[485]](#footnote-485)

The AER considers the methodology proposed by SP AusNet is an appropriate methodology to forecast opex partial factor productivity. The AER has examined the impact of substituting customer numbers and energy throughput in Economic Insights' model with the AER's determined number from Appendix C. The AER considers the impact of the change partial factor productivity from the use of Appendix C numbers does not significantly change SP AusNet's total forecast opex. For this reason the AER considers SP AusNet's proposed approach to opex partial factor productivity forecasts is reasonable and represents the best methodology available in the circumstances.[[486]](#footnote-486) As such, the AER has applied SP AusNet's proposed methodology the AER's adjusted base year forecast.

* + - * 1. Impact of partial productivity forecasts ($, $2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| SP AusNet's proposal | –0.3 | –0.6 | –1.0 | –1.4 | –1.8 | –5.0 |
| AER's draft decision | –0.3 | –0.6 | –1.0 | –1.4 | –1.7 | –4.9 |
| Difference | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |

Source: AER analysis.

Network growth

SP AusNet accounted for network growth through the application of an output growth escalator in its opex forecasting approach. Economic Insights quantified this relationship between network size and opex as a composite function of customer numbers and energy throughput. Based on forecasts of customers and energy throughput, SP AusNet proposed the output growth rates in table 6.9, which contributes 4.2 per cent of total opex over the 2013–17 access arrangement period.[[487]](#footnote-487)

* + - * 1. SP AusNet’s proposed output growth forecasts (per cent)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Output growth | 2.4 | 1.7 | 1.8 | 1.7 | 1.6 | 1.6 |

Source: Economic Insights, 2013–2017 Gas Access Arrangement Review—Access Arrangement Information, Appendix 6A, 26 March 2012.

The AER considers network growth should deliver economies of scale, particularly for operating costs. Although the output growth forecasts proposed by SP AusNet do not include economies of scale, these are included in the forecast productivity improvements. Consequently, the AER is satisfied that the approach proposed by SP AusNet to account for network growth is a reasonable basis on which to forecast opex.[[488]](#footnote-488)

However, while the general approach to account for network growth would seem reasonable, the specific output growth escalators proposed by SP AusNet are forecast on the basis of its forecast customer numbers and energy throughput. As discussed in attachment 9, the AER is not satisfied that SP AusNet's customer numbers and energy throughput forecasts represent the best forecasts possible in the circumstances.

However the AER has examined the impact of replacing customer numbers and energy throughput on proposed output growth and partial factor productivity. The AER considers the use of customer numbers and energy throughput in appendix C does not significantly impact SP AusNet's total opex. Consequently the AER is satisfied that the output growth escalators proposed by SP AusNet are reasonable and represent the best forecasts possible in the circumstances.[[489]](#footnote-489)

* + 1. Step changes

As discussed in section 6.2.5, SP AusNet has proposed an increase in expenditure in relation to expenditure that it considers is not reflected in the base year.

The AER has reviewed SP AusNet'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 SP AusNet's base year opex is required to give effect to r. 91 of the NGR.

Where the AER considers these step changes meet 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 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 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 a program of expenditure that is 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 a program of expenditure is intended to improve productivity, the AER would generally consider, unless circumstances indicate otherwise, that there is sufficient expenditure in the base opex in order to fund the program.

The AER's assessment of proposed step changes also recognises that the opex program 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 a step up in opex because a program of expenditure was not undertaken in the base year but needs to be undertaken 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 a step up in opex is required.

A comparison between the step changes proposed by SP AusNet and the AER's draft decision is below in table 6.10.

* + - * 1. Impact of step changes ($m, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| SP AusNet's proposal | 4.4 | 4.7 | 4.5 | 5.0 | 5.2 | 23.8 |
| AER's draft decision | 1.5 | 1.7 | 1.4 | 1.6 | 1.7 | 7.8 |
| Difference | –3.0 | –3.0 | –3.1 | –3.4 | –3.5 | –16.0 |

Source: AER analysis.

The following sections discuss the AER's draft decision in relation to each proposed step change.

Survey of gas mains and services in drains

Prompted by a Worksafe Victoria industry-wide alert about the dangers of gas pipelines running through storm water drains and sewers, and subsequent consultation to identify appropriate responses, SP AusNet has proposed two survey programs to identify problem gas mains and services and seek to relocate them.[[490]](#footnote-490)

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.

SP AusNet's proposal seeks to address the risks associated with gas mains that may be encroaching in drainage systems. 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, SP AusNet acting in accordance with good industry practice to achieve the lowest sustainable cost of delivering pipeline services would have taken immediate action to address this risk. 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.

Changes to heater maintenance

Prompted by an assessment of a sample of SP AusNet’s water bath heaters that revealed high levels of carbon monoxide at some sites, SP AusNet have proposed additional maintenance expenditure to ensure its maintenance practices comply with the recommended Australian Standard (AS-3814). It has proposed expenditure of $280,000 over 2013–17 for this program.[[491]](#footnote-491)

The AER’s draft decision is to not increase SP AusNet's opex allowance to fund this program. The AER is not satisfied that an incremental increase in opex to change heater maintenance policies would be consistent with the requirements of r. 91 of the NGR.

While the AER would encourage SP AusNet to undertake the expenditure necessary to alter its maintenance practices in order to comply with the recommended standard, it is not satisfied that allowing for opex for these activities would be expenditure that would be incurred by a prudent service provider acting efficiently in accordance with good industry practice to achieve the lowest sustainable cost of delivering pipeline services.

The AER is not aware of any change in the recommended Australian standard in relation to carbon monoxide levels in water bath heaters since the ESC’s previous access arrangement decision. If SP AusNet should need to increase expenditure on heater maintenance in the 2013–17 access arrangement period in order to meet the recommended Australian standard, then its current maintenance practices do not meet that standard. The AER does not consider that it would not be in accordance with accepted good industry practice by funding SP AusNet to comply with a standard that it should already be compliant with.

Operation fees on CTMs

SP AusNet pays APA GasNet for the operation of custody transfer meters (CTMs) at injection points to its network. SP AusNet forecast an increase in opex due to charges for three new city gates it forecasts to be installed in its network.[[492]](#footnote-492)

The AER agrees SP AusNet will incur an increase in opex in relation to operation fees for three new city gates. However, the AER notes SP AusNet has applied output growth escalation to its opex forecast (section 6.5.3) as part of its rate of change forecasting approach. Output growth escalation provides SP AusNet the additional opex required to supply more energy to more customers. The AER considers this includes the operating and maintenance expenditure associated with new network equipment, including CTMs. Consequently, the AER considers the proposed step change for operation fees on CTMs double counts network growth escalation and including this step change is not a reasonable basis to forecast opex and does not produce the best forecast possible in the circumstances.[[493]](#footnote-493) Similarly, the addition of this step change does not produce an opex forecast 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.[[494]](#footnote-494)

Magnetic tomography inspections of unpiggable gas pipelines

SP AusNet has proposed to introduce Magnetic Tomography Method (MTM) a newly available inspection technology that will enable SP AusNet to assess the integrity of pipelines that, due to their geometry (sharp bends, changing diameter), are not able to be inspected with existing technologies.[[495]](#footnote-495)

The AER's draft decision is not to increase opex to fund this program. It is not satisfied that an increase in opex for MTM inspections of unpiggable gas pipelines 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.

SP AusNet has determined that MTM inspections are a technology suitable for trial. The AER understands that a contractor has conducted field trials for SP AusNet of this technology but has yet to receive the full results of the trial. The AER understands that the results from the trial will help SP AusNet to determine which pipeline sections will require dig-up for further verification and how results from the MTM inspections compared with recent pigging of the same section of pipeline.[[496]](#footnote-496) As the results of the field trials appear to be important for determining how SP AusNet will use MTM in the future and what opex SP AusNet will incur in the 2013–17 access arrangement period related to MTM, the AER is not satisfied at this time that that an incremental increase in opex for MTM inspections is opex that would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.

Pipe saddle support repairs

Pipework saddle supports are used as supporting structures for various gas pipework and valves. This program proposes to rectify and repair around 50 pipework saddle supports following the identification of issues with pipe deterioration.[[497]](#footnote-497)

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.

The AER accepts that in many cases, it may be a prudent business decision to treat corrosion in pipelines. However, SP AusNet notes that pipe supports are already inspected twice yearly for corrosion. The AER also notes that AS 2885.3 requires a licensee to take appropriate remedial action after an inspection identifies that pipeline coating integrity has been affected. For these reasons the AER considers that all corrosion in pipelines would be identified at the time of these regular inspections. The AER expects that if pipe wall deterioration was 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 the issue 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 SP AusNet'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 opex to fund pipe saddle support repairs was warranted in the 2013–17 access arrangement period, there is likely to be some other maintenance expenditure incurred in 2011 that was not recurrent expenditure, the AER is not satisfied that SP AusNet's base opex does not already provide sufficient funding for a relatively small 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.

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 SP AusNet's obligations with respect to retail customers, and SP AusNet submitted that this will result in an increase in its operating expenditure over the 2013–17 access arrangement period.[[498]](#footnote-498)

The AER considers that SP AusNet's proposed step change in relation to the introduction of the NECF is not 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.[[499]](#footnote-499) The Victorian Government also announced it would explore opportunities to align state retail and consumer protection arrangements with the national framework where this realignment would not result in lower standards.[[500]](#footnote-500)

At the time SP AusNet 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 SP AusNet's Access arrangement proposal was predicated on the NECF commencing on this date (or at least prior to 1 July 2013). However, at this stage it is uncertain when and in what form the NECF will commence in Victoria and so the AER is unable to conclude that the costs proposed by SP AusNet will be 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 SP AusNet's Access arrangement. As discussed in attachment 11 this NECF specific pass through is not subject to a materiality clause.

Carbon tax administration

SP AusNet is now liable to purchase carbon credits to cover its fugitive emissions, calculated under the National Greenhouse Emissions Reporting Scheme. SP AusNet submitted that the costs of administering this program should be included as a step change in SP AusNet's opex allowance.[[501]](#footnote-501)

The AER accepts that administering the carbon scheme represents a step change in SP AusNet's opex as this expenditure was not incurred in the 2011 base year. However, the AER has concluded that the amount proposed by SP AusNet does not reflect the quantum of opex that would be incurred by a prudent and efficient service provider. The AER considers that SP AusNet's proposed staffing allocation is in excess of that required to administer the carbon scheme. SP AusNet indicated that the equivalent of one full time staff member will be dedicated to implementing this program for SP AusNet's Victorian gas distribution system.[[502]](#footnote-502) Additionally another full time staff member will dedicate 50 per cent of its time to implementing this program for SP AusNet's Victorian gas distribution system.[[503]](#footnote-503) As such, SP AusNet indicated that it requires 1.5 FTE staff dedicated to administering this program for its Victorian gas distribution business.[[504]](#footnote-504)

The AER considers that much of the work proposed by SP AusNet would be intermittent in nature and whilst there may be periods where one or more full time staff are required to work on administering this project, administering this program will not require this level of staffing on an ongoing basis throughout the access arrangement period. The AER considers 0.5 FTE staff is sufficient to administer this program and reflects the expenditure which would be incurred by a prudent and efficient distribution business. The AER also approves SP AusNet's proposed audit costs required to administer this scheme. Accordingly, the AER approves $108,750 per annum to administer the carbon scheme.

Interaction with SP AusNet's pass through application

The AER previously approved a pass through application for SP AusNet's carbon costs, 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 $250 000, comprising $140 000 for one-off start-up costs and $110 000 in the half-year[[505]](#footnote-505) for the cost of management, audit and modelling.[[506]](#footnote-506) In accepting this forecast the AER noted that:

To mitigate any risk that the administrative costs proposed by SP AusNet 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 SP AusNet for the next access arrangement period. This will avoid any double counting of allowed costs to be recovered from customers.[[507]](#footnote-507)

In its access arrangement proposal, SP AusNet has proposed administration costs relating to:

* additional tariff modelling;
* collation and audit of the submissions to Government;
* collation and audit of the submissions to the AER in regard to the annual adjustment and ‘true up’ for the carbon tariff;
* the purchase of the carbon credits; and
* internal reporting.[[508]](#footnote-508)

The AER notes that SP AusNet's access arrangement proposal does not include costs in the nature of one-off start-up costs and that the costs proposed relate to the ongoing administration of the scheme. As such, the AER considers that the costs which SP AusNet proposed for the 2013–17 access arrangement period are not costs for which it has previously been funded.

* + 1. Other adjustments to forecast opex

As discussed in section 6.5.2, SP AusNet also proposed adjustments to its forecast opex for costs which were set to zero in the base year for the purposes of forecasting. SP AusNet proposes that these need to be included in the opex allowance for determining the total operating expenditure forecast for the next regulatory period.

* + - * 1. SP AusNet proposal and AER draft decision on other adjustments to forecast opex ($m, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Proposed other adjustments | 2.2 | 2.6 | 2.4 | 2.8 | 3.1 | 13.2 |
| AER draft decision other adjustments | 1.4 | 1.6 | 1.4 | 1.5 | 1.7 | 7.5 |
| Difference | –0.9 | –1.0 | –1.1 | –1.4 | –1.4 | –5.7 |

Source: AER analysis.

Reallocation of SPIMS and overhead costs

SPIMS and overhead costs are allocated across SP AusNet’s networks. The electricity distribution advanced metering infrastructure (AMI) project is currently allocated a portion of these overhead costs. At the completion of the AMI project in 2013, these costs will be reallocated back to the electricity distribution, electricity transmission, and gas distribution businesses.[[509]](#footnote-509) SP AusNet forecast that this will increase its gas businesses opex by $5.5 million ($2012) in the next access arrangement period.[[510]](#footnote-510)

However, the AER notes SP AusNet's forecast opex for the 2008–12 access arrangement period was based on the SPIMS and overhead costs incurred in 2006, prior to the commencement of the first AMI budget period in 2009.

SP AusNet gas business has retained the full benefit of this temporary reduction in overhead costs within the 2008–12 access arrangement period. Further, these reductions in SPIMS and overhead costs have registered as efficiency gains under SP AusNet's opex incentive mechanism, for which it will receive positive carryover amounts in the next access arrangement period.

If a step change was given to SP AusNet it would be rewarded twice in the 2013–17 access arrangement period for an efficiency gain that was the result of a government mandated project. That is, it would receive its accrued positive carryover amount and the step change. This would also allow it to retain the efficiency gains made in the 2008–12 access arrangement period for longer than five years, which would be inconsistent with its opex incentive mechanism.

Change to capitalisation policy

SP AusNet recently reviewed its approach to capitalisation of expenditure. It determined that the following costs should now be treated as maintenance expenditure from 2012:[[511]](#footnote-511)

* supply regulator and associated equipment periodic maintenance
* industrial and commercial regulator and associated equipment periodic maintenance
* supervisory control and data acquisition (SCADA) miscellaneous works.

It determined that these works should no longer be capitalised because these activities did not necessarily extend the asset’s life beyond its original asset life. SP AusNet forecast $3.9 million ($2012) of additional opex that would previously have been treated as capital.[[512]](#footnote-512) The AER is satisfied this expenditure is maintenance expenditure and should be included in forecast opex.

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 the Allen Consulting Group (ACG) commissioned by the ACCC in 2004.[[513]](#footnote-513) 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 SP AusNet with a reasonable opportunity to recover at least its efficient transaction costs in raising finance.[[514]](#footnote-514)

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.

SP AusNet proposed debt raising costs of 9.2 bppa or $3.73m (real, 2012) over the 2013–17 access arrangement period based on the AER’s established method from the 2004 ACG report, and assuming 3-4 bond issues.[[515]](#footnote-515)

The AER accepts SP AusNet's method for determining debt raising costs. The method is the established AER method that is based on a 2004 ACG report, which provides network service providers with a reasonable opportunity to recover at least the efficient costs in providing reference services.[[516]](#footnote-516) Also, the method provides for the expenditure 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)

Benchmark debt raising costs

Although the AER has accepted SP AusNet's method for determining debt raising costs, the AER has made changes to SP AusNet's RAB value. As a result, this has changed the debt component of SP AusNet's RAB and consequentially the estimated amount of debt raising costs. The AER's benchmark allowance, however, still provides for four standard sized bond issues. The unit costs and the benchmark debt raising cost are shown in table 6.12. As this draft decision 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 SP AusNet based on a nominal WACC of 7.16 per cent

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Value | Explanation | 1 issue | 2 issues | 4 issues |
| Total amount raised | Multiples of median MTN ($250m) | $250m | $500m | $1000m |
| 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 | 0.55 |
| 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 | 9.2 |

Source: AER analysis.

This has resulted in the debt raising costs for SP AusNet outlined below in table 6.13.

* + - * 1. Debt raising costs for SP AusNet ($m real, 2012)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 |
| Debt raising costs | 0.68 | 0.70 | 0.72 | 0.74 | 0.75 |

Source: AER analysis.

* 1. Revisions

The AER requires SP AusNet to make the following revisions to its Access arrangement proposal consistent with requirements of the NGR and NGL:

Revision 6.1: 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.

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. Five years corresponds to the length of the access arrangement period.

This attachment presents the AER’s assessment of SP AusNet's proposed:

* carryovers from the operation of the incentive mechanisms in the 2008–12 access arrangement period, namely the efficiency incentive and carry-over mechanism
* incentive mechanisms for the 2013–17 access arrangement period.
  1. Draft decision
     1. Carryover from the 2008–12 access arrangement period

The AER does not approve SP AusNet's proposed carryover of $23.7 (2012) from the   
2008–12 access arrangement period because it was not calculated according to the incentive mechanism in SP AusNet's current access arrangement. The AER has calculated that SP AusNet accrued a total carryover of $24.2 million ($2012) during the 2008–12 access arrangement period (table 7.1).

* + - * 1. AER draft decision on SP AusNet carryover from the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| SP AusNet proposed | 13.1 | 6.7 | 5.3 | –1.4 | – | 23.7 |
| AER draft decision | 13.4 | 3.4 | 8.6 | –1.2 | – | 24.2 |
| Difference | 0.3 | –3.3 | 3.3 | 0.2 | – | 0.5 |

Source: SP AusNet, Access arrangement information, 30 March 2012, p. 195; SP AusNet, PTRM; AER analysis.

* + 1. Proposed incentive mechanism for the 2013–17 access arrangement period

The AER does not approve SP AusNet's proposed incentive mechanisms. It considers amendments are required to make the opex incentive mechanism consistent with r. 98 of the NGR and the revenue and pricing principles.[[518]](#footnote-518)

The AER considers SP AusNet's proposed capex incentive mechanism is inconsistent with r. 98 of the NGR and the revenue and pricing principles. The AER does not consider the inclusion of any alternative capex incentive mechanism would be consistent with the requirements of the NGR. Therefore the AER requires SP AusNet to remove the capex incentive mechanism from its Access arrangement proposal.

* 1. SP AusNet proposal
     1. Carryovers accrued in the 2008–12 access arrangement period

SP AusNet proposed a total carryover of $23.7 million ($2012) from the application of the incentive mechanism during the 2008–12 access arrangement period (table 7.2).

* + - * 1. SP AusNet proposed carryover from the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Opex efficiency carryover | 11.6 | 6 | 5.6 | –0.6 | – | 22.6 |
| Capex efficiency carryover | 1.5 | 0.7 | –0.3 | –0.8 | – | 1.1 |
| Total | 13.1 | 6.7 | 5.3 | –1.4 | – | 23.7 |

Source: SP AusNet, Access arrangement information, 30 March 2012, p. 195, SP AusNet PTRM.

* + 1. Proposed incentive mechanism for the 2013–17 access arrangement period

SP AusNet proposed to include an efficiency carryover mechanism that rewards efficiency improvements in relation to operating and capital expenditure. The proposed incentive mechanism would allow SP AusNet to retain efficiency improvements for five years, irrespective of the year in which the saving is achieved.[[519]](#footnote-519)

SP AusNet proposes efficiency gains (or losses) in any year are to be calculated as follows:[[520]](#footnote-520)

Capex efficiency gain = WACC × (CapexiForecast – CapexiActual)

where:

WACC is the pre-tax WACC applying to SP AusNet

Opex efficiency gain = Underspendingi – Underspendingi-1

where:

Underspendingi = OpexiForecast – OpexiActual

SP AusNet proposes to include the following benchmark adjustments for capex:[[521]](#footnote-521)

* low and medium pressure mains replacement benchmarks:

(actual/forecast[[522]](#footnote-522) km replaced – benchmark km replaced) × benchmark unit rate per km

* domestic and commercial meter replacement benchmarks:

(actual/forecast[[523]](#footnote-523) meters replaced – benchmark meters replaced) × benchmark unit rate meter replacement

* customer connections benchmark for commercial and domestic customers:

(actual/forecast[[524]](#footnote-524) customer connections – benchmark customer connections) × benchmark unit rate per customer connection

* scope changes relating to other capex programs – SP AusNet proposes capex benchmarks be amended for changes in scope so far as this can be substantiated.

Opex benchmarks are to be adjusted for actual network growth with the output parameter of the 'rate of change' formulation to be updated for actual customer numbers and energy throughput in the manner consistent with the rate of change as determined in the final decision.[[525]](#footnote-525)

* 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[[526]](#footnote-526)
* decide whether the 2013–17 Access arrangement includes one or more incentive mechanisms to encourage efficiency in the provision of services by SP AusNet.[[527]](#footnote-527)

In ensuring the 2013–17 access arrangement period properly reflect increments or decrements resulting from the operation of the efficiency carryover mechanism, the AER has 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 arrangement, the AER considered whether:

* SP AusNet's proposed incentive mechanisms for the 2013–17 access arrangement period encourage efficiency in the provision of reference services[[528]](#footnote-528)
* the parameters of the proposed schemes are appropriate[[529]](#footnote-529)
* the mechanisms are consistent with the RPP.
  1. Reasons for decision
     1. Carryover from the 2008–12 access arrangement period

The mechanism for the carrying over efficiency gains is set out in clause 6.4(b) of SP AusNet's 2008–12 access arrangement. The amount to be carried over is the total of the efficiency gains or losses incurred in relation to capex and opex by SP AusNet during the 2008–12 access arrangement period. How those gains and losses are to be calculated is set out in clause 6.4(a) of SP AusNet's 2008–12 Access arrangement. Clause 6.4(b)(3)(B) states the opex and capex benchmarks to calculate the carryover amounts to apply for the 2013­–17 access arrangement period should be adjusted to account for differences between forecast output and actual output:

the carryover in respect of cost-related efficiency gains will be calculated in a manner that takes account of the difference between forecast and actual growth by adjusting the original benchmarks on the basis of the difference between the actual number of connections in any Calendar Year and the assumed number of connections for that year 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:[[530]](#footnote-530)

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.

The adjustments SP AusNet made to benchmark opex, in particular the weights SP AusNet applied to the growth factors in its calculation of the growth adjustment, were not consistent with SP AusNet's Access Arrangement for 2008–12. The AER notes, however, that it was not possible for SP AusNet to adjust the 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 SP AusNet used to calculate the carryover. SP AusNet's actual opex included:

* unaccounted for gas expenditure
* licence fees
* non-reference services expenditure
* movements in provisions.

These should be excluded because they were not included in the benchmark opex.

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 is set out in SP AusNet's access arrangement. For these reasons, the AER recalculated the carryover amounts using the approach set out in SP AusNet's Access arrangement for 2008–12 (table 7.3).

* + - * 1. AER draft decision on SP AusNet carryover from the 2008–12 access arrangement period ($million, 2012)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Opex efficiency carryover | 12.3 | 2.9 | 8.8 | –0.6 | – | 23.4 |
| Capex efficiency carryover | 1.0 | 0.5 | –0.2 | 0.5 | – | 0.8 |
| Total | 13.4 | 3.4 | 8.6 | –1.2 | – | 24.2 |

Source: AER analysis.

* + 1. Proposed incentive mechanism for the 2013–17 access arrangement period

The AER accepts SP AusNet's proposal to apply an incentive mechanism to opex. However, the AER identified issues with SP AusNet's proposed opex incentive mechanism that it considers require amendment to make the incentive mechanism consistent with r. 98 of the NGR and the revenue and pricing principles.

The AER does not accept SP AusNet's proposal to include an incentive mechanism applying to capex in the 2013–17 access arrangement period. The AER considers the proposed capex incentive scheme delivers an inappropriate incentive to inefficiently defer capex, which is inconsistent with an incentive mechanism that encourages efficiency and the RPP.[[531]](#footnote-531)

Opex incentive mechanism

The AER considered in detail the rationale for opex incentive mechanisms in the electricity distribution and transmission efficiency benefit sharing schemes.[[532]](#footnote-532) The same rationale largely applies to gas service providers 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 5 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.[[533]](#footnote-533)

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.[[534]](#footnote-534) 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.[[535]](#footnote-535)

The AER is also satisfied the inclusion of an opex incentive mechanism in SP AusNet's Access arrangement will provide SP AusNet a reasonable opportunity to recover at least its efficient costs and be consistent with the RPP. [[536]](#footnote-536) This is because the mechanism rewards efficiency gains and penalises efficiency losses. 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 SP AusNet'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 5 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 SP AusNet 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, are used to set opex allowances SP AusNet 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 (decrease), 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 SP AusNet 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 SP AusNet's control.

Clarification of the opex incentive mechanism

The AER considers a number of clauses in the opex incentive mechanism require clarification. This is because the incentive mechanism, as it is currently drafted is ambiguous about:

* how efficiency gains are calculated for 2013
* forecast opex applicable for the purposes of calculating efficiency carryover from the 2013–17 access arrangement period
* adjustments to forecast opex for the purposes of calculating efficiency carryover from the 2013–17 access arrangement period
* whether and how to account for changes in classification of costs to opex.

The AER has set out an incentive mechanism to be included in SP AusNet's 2013–17 Access arrangement that it considers will clarify these matters and 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 SP AusNet a continuous incentive to find operating expenditure efficiencies through a combination of:

* an ex ante forecast of operating expenditure in SP AusNet's Total Revenue
* increments or decrements from the operation of this incentive mechanism that allow SP AusNet 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 SP AusNet'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 SP AusNet 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 SP AusNet 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. movements in provisions
12. any other activity that SP AusNet and the Regulator agree to exclude from the operation of the efficiency carryover mechanism.
13. 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[[537]](#footnote-537) in SP AusNet's Access Arrangement Information, with the following exception:
14. 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.
15. Where SP AusNet changes its approach to classifying costs as either capex or opex during the access arrangement period, SP AusNet will adjust the forecast opex in table X.X[[538]](#footnote-538) in SP AusNet's Access Arrangement Information so that the forecast expenditures are consistent with the capitalisation policy changes.
16. If there is a change in SP AusNet’s approach to classifying costs as either capex or opex, SP AusNet must provide to the AER a detailed description of the change and a calculation of its impact on forecast and actual opex.

Table 7.4 must be added to SP AusNet's Access arrangement information to specify the forecast expenditure to be used as the basis for measuring efficiencies.

* + - * 1. Forecast operating expenditure for the purposes of the incentive mechanism in the 2013–17 access arrangement

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Forecast opex | 42.2 | 43.7 | 45.2 | 46.2 | 46.8 | 47.4 | 48.3 |

Note: Excludes debt raising costs.

Source: AER analysis.

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.[[539]](#footnote-539) 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.[[540]](#footnote-540) 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.[[541]](#footnote-541)

A comparison of the actual capex spend of the Victorian gas distribution service providers against forecast capex in the 2003–07 and 2008–12 access arrangement periods suggests service providers are increasingly deferring their capex programs. These deferrals are occurring in all capex categories, including significant deferral of non‑volume driven capex.

SP AusNet has earned positive capex carryovers in 2008, 2009 and 2010. The positive carryovers have been driven by significant underspending in the non-volume driven capex categories, in particular IT, SCADA and other capex. The forecast capex for 2012 and the 2013–17 access arrangement period in these categories is higher than the current benchmarks, suggesting that the underspending in these capex categories was due to deferral. While many deferrals are efficient (by minimising the long term total cost of service provision), it can be difficult to determine whether a deferral is efficient or not and the AER considers the proposed capex incentive mechanism provides an incentive to defer some capex even when it is not efficient to do so.

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,[[542]](#footnote-542) and no service standard incentive mechanism is in place, the AER considers SP AusNet does not have a balanced incentive to maintain service levels.

For these two reasons, the AER considers SP AusNet's proposed capex incentive scheme would not provide effective incentives to promote efficient investment. The incentives to defer capex, and the lack of a balanced service standard incentive, lead to the potential for underinvestment in the pipeline and over utilisation of the pipeline. Therefore, the proposed capex incentive mechanism results in outcomes that are inconsistent with the requirements in the RPP[[543]](#footnote-543) and is inconsistent with r. 98 of the NGR. For these reasons, the AER requires SP AusNet to remove clauses 6.4(a)(3), 6.4(a)(6), 6.4(b)(2), 6.4(b)(3)(A) and 6.4(b)(3)(C) from the proposed access arrangement.

* 1. Proposed amendments

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 2008–12 access arrangement period as set out in tables 7.1 and 7.3.

Revision 7.2: delete clause 6.4 of the Access arrangement proposal and replace it with the incentive mechanism set out in section 7.4.2.

Revision 7.3: amend the Access arrangement information to include table 7.4.

1. Corporate income tax

When determining the total revenue for SP AusNet, the AER must estimate SP AusNet’s cost of corporate income tax.[[544]](#footnote-544) SP AusNet has adopted the post-tax framework to derive its revenue requirement for the 2013–17 access arrangement period.[[545]](#footnote-545) 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 SP AusNet’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 SP AusNet’s proposed forecast corporate income tax allowance of $53.8 million ($nominal)[[546]](#footnote-546) for the 2013–17 access arrangement period. This is mainly because of the AER's adjustments to SP AusNet’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 SP AusNet’s proposed method to establish the opening tax asset base as at 1 January 2013. However, the AER does not approve some of SP AusNet’s proposed tax additions during the 2008–12 access arrangement period, and therefore does not approve SP AusNet’s proposed opening tax asset base as at 1 January 2013. The AER’s adjustments to the tax additions reduce SP AusNet’s proposed opening tax asset base as at   
1 January 2013 by approximately $12.8 million ($nominal), or 2.6 per cent.

The AER accepts SP AusNet’s proposal to maintain separate tax groups for tax depreciation purposes. The disaggregation of tax groups reflects the different historical tax treatment applied to SP AusNet’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 SP AusNet’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 SP AusNet’s proposed change to its tax depreciation approach from the declining balance method (with the exception of the 'Land & buildings' and 'Repairs' asset classes) 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 allowance of $23.3 million ($nominal) for SP AusNet as shown in . Based on the approach to modelling the cash flows in the PTRM, the AER has derived an effective tax rate of 25.3 per cent for this draft decision.

* + - * 1. AER's draft decision on corporate income tax allowance for SP AusNet ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Tax payable | 2.1 | 5.1 | 6.5 | 7.9 | 9.5 | 31.0 |
| Less: value of imputation credits | 0.5 | 1.3 | 1.6 | 2.0 | 2.4 | 7.8 |
| Net corporate income tax allowance | 1.6 | 3.9 | 4.9 | 5.9 | 7.1 | 23.3 |

Source: AER analysis.

* 1. SP AusNet’s proposal

For the 2013–17 access arrangement period, SP AusNet proposed a total corporate income tax allowance of $53.8 million ($nominal) as set out in table 8.2.

SP AusNet 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.[[547]](#footnote-547) In estimating its corporate income tax allowance, SP AusNet used:[[548]](#footnote-548)

* an opening tax asset base of $500.4 million ($nominal) as at 1 January 2013
* an expected statutory income tax rate of 30 per cent per year
* a value for the assumed utilisation of imputation credits (gamma) of 0.25
* the standard tax asset lives and tax depreciation approaches set out in its proposed PTRM.
  + - * 1. SP AusNet’s proposed corporate income tax allowance ($million, nominal)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
| Tax payable | 11.7 | 14.5 | 14.0 | 15.4 | 16.1 | 71.7 |
| Less: value of imputation credits | 2.9 | 3.6 | 3.5 | 3.8 | 4.0 | 17.9 |
| Net corporate income tax allowance | 8.8 | 10.9 | 10.5 | 11.5 | 12.1 | 53.8 |

Source: SP AusNet, PTRM, March 2012.

Consistent with its earlier access arrangements, SP AusNet 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. SP AusNet 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, SP AusNet proposed a new tax group (group 7) for capex to be incurred in 2013–17. SP AusNet proposed changing its tax depreciation approach from the declining balance method to straight-line method for most of the group 7 tax assets. This change is shown in table 8.3.

* + - * 1. SP AusNet’s proposed 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 | Straight-line |

Source: SP AusNet, PTRM, March 2012.

* 1. Assessment approach

The AER's approach to calculating SP AusNet’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 SP AusNet’s business. The AER has modelled SP AusNet’s tax expenses over the 2013–17 access arrangement period. Interest tax expense is estimated using a benchmark 60 per cent gearing, rather than SP AusNet’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 SP AusNet’s total revenue.[[549]](#footnote-549)

The corporate income tax allowance is an output of the AER’s PTRM. The AER therefore has assessed SP AusNet’s proposed corporate income tax allowance by analysing SP AusNet’s proposed inputs to the PTRM for calculating the tax allowance. These inputs include:

* the opening tax asset base 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 SP AusNet's proposal, the AER has had regard to the NGO and the revenue and pricing principles.[[550]](#footnote-550)

The AER considers that the roll forward of the opening tax asset base to 1 January 2013 should be based on the ESC’s approved opening tax asset base as at 1 January 2007 and SP AusNet’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 3.[[551]](#footnote-551)

The AER assesses SP AusNet’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 SP AusNet’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 SP AusNet proposed to use the declining balance tax depreciation approach for most of the group 1–6 tax assets,[[552]](#footnote-552) these tax asset classes do not require remaining tax asset lives.[[553]](#footnote-553)

* 1. Reasons for decision

The AER’s draft decision on SP AusNet’s corporate income tax allowance is $23.3 million ($nominal), which is a reduction of $30.5 million ($nominal) or 56.7 per cent of SP AusNet’s proposal. The AER accepts most of SP AusNet’s methods for calculating the corporate income tax allowance. However, the AER adjusted several of SP AusNet’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 approaches for the 'Repairs' and 'Land & buildings' asset classes 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 SP AusNet's approaches to determine the opening tax asset base as at 1 January 2013. In particular, the AER accepts SP AusNet's proposal to use an opening tax asset base as at 1 January 2007 of $326.4 million ($nominal). The ESC approved this amount in its decision for the 2008–12 access arrangement period.

However, the AER does not approve aspects of the opening tax asset base. 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 SP AusNet's proposal without these changes does not represent an estimate of the tax asset base that is the best possible in the circumstances, as required by the NGR.[[554]](#footnote-554)

Tax additions

The AER does not approve SP AusNet's proposed tax additions for 2007–12. 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 SP AusNet'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 the tax additions represents a reduction of approximately $15 million ($nominal) or 3.4 per cent of SP AusNet's proposed tax additions for 2007–12. The AER's approved tax additions for 2007–12 are set out in table 8.4.

* + - * 1. AER's draft decision on tax additions for 2007–2012 ($million, nominal)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Tax asset class | 2007 gas extensiona | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Mains and services | 12.7 | 45.4 | 59.2 | 57.9 | 60.7 | 69.6 | 58.7 |
| Meters (group 5) | 0.1 | 3.0 | n/a | n/a | n/a | n/a | n/a |
| Meters domestic (group 6) | n/a | n/a | 4.7 | 1.5 | 1.8 | 2.1 | 8.7 |
| Meters industrial & commercial (group 6) | n/a | n/a | 0.6 | 0.4 | 0.2 | 0.5 | 2.8 |
| Land & buildings | – | – | – | – | – | – | – |
| Other assets | – | 3.1 | 2.1 | 10.8 | 9.5 | 10.6 | 5.4 |
| Repairs | – | – | – | – | – | – | – |
| Total | 12.9 | 51.5 | 66.6 | 70.5 | 72.2 | 82.8 | 75.6 |

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

The AER considers that these amended tax additions will result in the best possible estimate of SP AusNet's tax asset base and therefore the corporate income tax allowance for the 2013–17 access arrangement period, as required by the NGR.[[555]](#footnote-555)

'Land & buildings' asset class

The AER does not approve SP AusNet'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 SP AusNet'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 SP AusNet nor the AER has sufficient information to accurately allocate the residual asset value from 2013. However, SP AusNet has submitted that it considers its current land holdings to be immaterial. On this basis, 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.[[556]](#footnote-556) This is because land is a non-depreciable asset under the Australian taxation law, and does not diminish in its useful life.[[557]](#footnote-557) The Income Tax Assessment Act (ITAA) 1997 excludes land from the definition of a ‘depreciating asset’.[[558]](#footnote-558)

The AER sent an information request to SP AusNet to inquire about a possible split between ‘Land’ and ‘Buildings’ in the opening tax asset base value as at 1 January 2013.[[559]](#footnote-559) In response, SP AusNet stated that it did not have enough information that would allow a split of the opening tax asset base value of the ‘Land & buildings’ asset class.[[560]](#footnote-560) It submitted:

SP AusNet’s RAB was established as part of the privatisation process, with the existing asset category ‘land & buildings’ in its current aggregated form. No information was provided at the time that allowed a split between land and buildings either in documentation or models from that period. Subsequently, there has been no capital expenditure on land since privatisation.

Therefore, SP AusNet cannot identify what proportion of ‘land & buildings’ value is land.

SP AusNet does not consider current land holdings are likely to be material, reasoning that probably drove the initial aggregation at privatisation. Nonetheless, SP AusNet agrees that going forward it would be appropriate to assign any new land purchases to a new asset class ‘Land’ and treat it as a non-depreciating asset.

Based on SP AusNet’s response, the AER considers that it is reasonable for SP AusNet to maintain ‘Land & buildings’ as a single asset class to roll forward the tax asset base to the end of 2012. However, the AER agrees 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.

Although SP AusNet did not forecast any capex for the 'Land & buildings' asset class, the AER has split this into '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 SP AusNet’s tax asset base roll forward for the 2008–12 access arrangement period is set out in table 8.5.

* + - * 1. AER's draft decision on SP AusNet’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 | 329.1 | 352.9 | 377.8 | 404.6 | 430.8 | 464.7 |
| Tax additions | 64.3 | 66.6 | 70.5 | 72.2 | 82.8 | 75.6 |
| Tax depreciation | 40.5 | 41.7 | 43.7 | 46.0 | 49.0 | 52.8 |
| Closing tax asset base | 352.9 | 377.8 | 404.6 | 430.8 | 464.7 | 487.5 |

Source: AER analysis.

* + 1. Tax depreciation approaches

The AER accepts SP AusNet’s proposal to maintain separate tax groups for tax depreciation purposes. The AER approves SP AusNet’s proposal to continue applying the same tax depreciation approaches to group 1–6 tax assets as allowed by the ESC in the earlier access arrangements.

The AER approves SP AusNet'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' and 'Repairs' asset classes. 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.[[561]](#footnote-561) The straight-line method is also consistent with the tax depreciation approach approved by the AER in recent decisions.[[562]](#footnote-562)

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 earlier 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).

SP AusNet did not forecast any capex for the ‘Repairs’ asset class in the 2013–17 access arrangement period. Nonetheless, SP AusNet’s proposed PTRM specifies the ‘Repairs’ asset class is to be depreciated using a straight-line method for tax purposes. The AER does not accept that the ‘Repairs’ asset class should be depreciated using a straight-line method. This is because repairs are an allowable deduction under provisions of the ITAA 1997.[[563]](#footnote-563) Therefore, consistent with the approach applying to group 6 tax assets, the AER has corrected the tax depreciation approach for the ‘Repairs’ asset class to be fully deductible.

The AER’s draft decision on SP AusNet’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 8.6.

* + - * 1. AER's draft decision on SP AusNet’s tax depreciation approaches for group 7 tax assets

|  |  |
| --- | --- |
| Tax asset class | Group 7 (2013–17 capex) |
| Mains and services | Straight-line |
| Meters domestic | Straight-line |
| Meters industrial & commercial | Straight-line |
| Landa | n/a |
| Buildingsb | Straight-line |
| Other assets | Straight-line |
| Repairs | Fully deductible |

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.

n/a Not applicable.

* + 1. Standard tax asset lives

With the exception of the 'Land & buildings' asset class, the AER approves SP AusNet’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 for the 2008–12 access arrangement period.

SP AusNet 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.[[564]](#footnote-564) This 40 year life is consistent with the ESC’s approved standard tax asset life for SP AusNet’s ‘Land & buildings’ asset class in the earlier access arrangement.[[565]](#footnote-565)

As discussed in section 8.4.1, SP AusNet has agreed with the AER that from 1 January 2013, land should be separated to form a new asset class and be treated as a non-depreciating asset. Although SP AusNet did not forecast any capex for the 'Land & buildings' asset class for 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
* 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 SP AusNet's PTRM).

The AER's approved standard tax asset lives for SP AusNet's group 7 tax assets for the 2013–17 access arrangement period are set out in table 8.7.

* + - * 1. AER's draft decision on SP AusNet’s standard tax asset lives for group 7 tax assets

|  |  |
| --- | --- |
| **Tax asset class** | **Group 7 (2013–17 capex)** |
| Mains and services | 20 |
| Meters domestic | 4 |
| Meters industrial & commercial | 15 |
| Land | n/a |
| Buildings | 40 |
| Other assets | 10 |
| Repairs | Fully deductiblea |

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.

* + 1. Remaining tax asset life

SP AusNet 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. The disaggregation of tax groups in SP AusNet’s tax asset base roll forward is in contrast to the AER's required change to SP AusNet’s modelling of its regulatory depreciation for its capital base to aggregate individual capex amounts to asset classes. Remaining tax asset lives for the majority of SP AusNet’s assets in its tax groups are also not necessary. 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 SP AusNet'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 SP AusNet’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 in its review of the AER’s 2010 distribution determinations for Energex, Ergon Energy and ETSA Utilities.[[566]](#footnote-566) 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.[[567]](#footnote-567) 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 proposal 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.

Revision 8.2: Make all necessary amendments to reflect the AER’s draft decision on tax additions for 2007–2012, as set out in table 8.4.

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 8.6.

Revision 8.4: Make all necessary amendments to reflect the AER’s draft decision on standard tax asset lives, as set out in table 8.7.

1. Demand

This attachment sets out the AER's assessment of the demand forecasts proposed by SP AusNet for the 2013–17 access arrangement period. Demand is an important input into the derivation of SP AusNet's reference tariffs. It also affects opex and capex linked to network growth.

* 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, SP AusNet used some assumptions and data sets that have biased and distorted the modelling results. In particular:

* estimates of Effective Degree Day (EDD) used by SP AusNet to weather normalise historic gas consumption have biased the demand forecasts
* the growth rate of new dwellings used to forecast residential customer numbers in Central and West regions are outdated.

The AER considers that SP AusNet's demand forecasts are not arrived at on a reasonable basis and do not represent the best forecasts possible in the circumstances.[[568]](#footnote-568) The reasons for the AER's decision are discussed below.

* 1. SP AusNet proposal

SP AusNet engaged the Centre for International Economics (CIE) to prepare its demand forecasts.

CIE used a four step approach to produce SP AusNet's proposed demand forecasts:[[569]](#footnote-569)

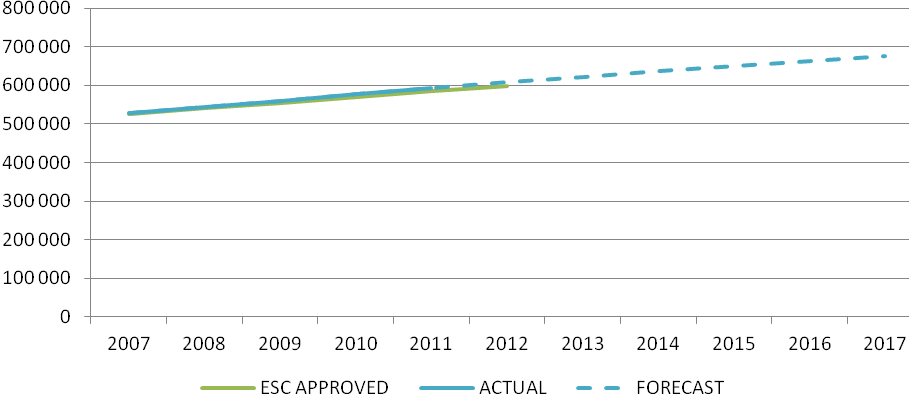
* Identify fundamental drivers of demand and establish the strength of their effects on demand
* Source projections for these drivers of demand, using publicly available estimates
* Generate the demand forecasts by feeding the projections of the key drivers of demand (sourced in step 2) through the models constructed in step 1
* Review the forecasts using a top-down approach. This involves comparing forecasts against correlated variables, such as population and economic growth forecasts for the regions under consideration.

CIE considered the following drivers in preparing SP AusNet's proposed demand forecasts: [[570]](#footnote-570)

* weather – colder climate leads to greater gas demand
* catchment area population growth – more residents and businesses will results in more connections and hence more customers
* SP AusNet network expansion – as the network is expanded, more customers have the option of connecting
* connection cohort – more recent connections tend to be more energy efficient, in part due to more stringent building standards, thereby lessening average gas usage
* type of dwelling – units consume less gas than houses
* government policies
* policies related to construction standards and building design have a significant impact on demand. As buildings become more energy efficient, their gas usage (if connected to the network) is lower
* a variety of Federal and State-level policies impacting gas usage
* type of economic activity undertaken by commercial and industrial customers – whether customers are in expanding or contracting economic sectors will affect their gas demand
* wholesale price of gas – higher wholesale prices will curtail gas demand
* price of substitutes – such as electricity.

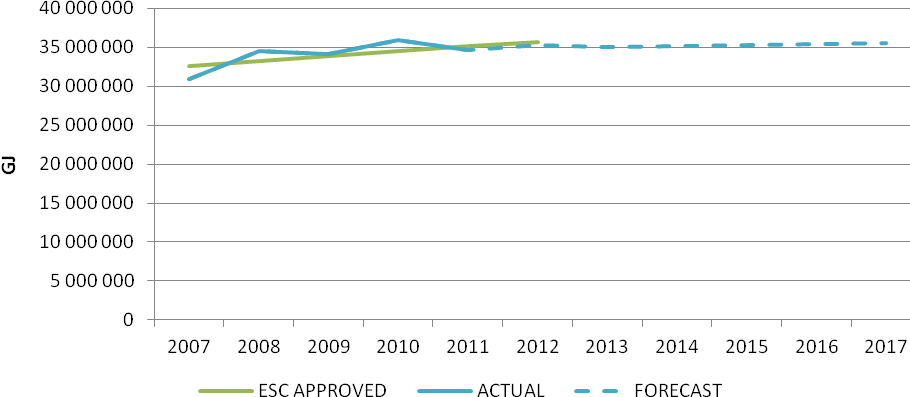
Figure 9.1 to Figure 9.3 illustrate the proposed demand forecasts.

* + - 1. Tariff V residential and non-residential customer numbers, ESC approved, actual and forecast 2007 to 2017



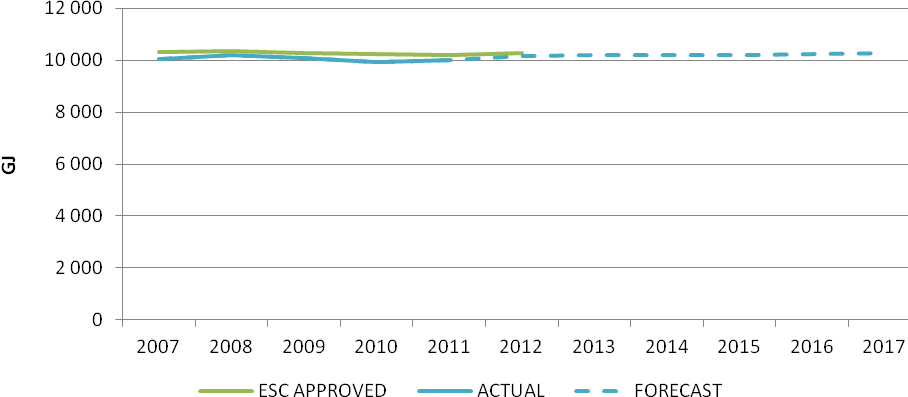
Source: SP AusNet, Access arrangement information, 30 March 2012, and SP AusNet Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, 7 March 2008 Chapter 11

* + - 1. SP AusNet–Tariff V residential and non-residential consumption, ESC approved, actual and forecast 2007 to 2017



Source: SP AusNet, Access arrangement information, 30 March 2012, and SP AusNet Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, 7 March 2008 Chapter 11

* + - 1. SP AusNet–Tariff D maximum hourly quantity (MHQ), actual and forecast 2007 to 2017



Source: SP AusNet, Access arrangement information, 30 March 2012, and SP AusNet Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, 7 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[[571]](#footnote-571)
* 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.[[572]](#footnote-572)

In making a decision to approve or not to approve an access arrangement, the AER must be satisfied that forecasts used in setting reference tariffs:[[573]](#footnote-573)

* 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 under the circumstances.[[574]](#footnote-574) These are:

* the appropriateness of the forecasting 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 SP AusNet's proposed demand forecasts are the best possible forecasts given 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. This includes recent trends in gas consumption and peak demand relative to expectations at the time the forecasts for the 2008–12 access arrangement were made. For this purpose, the AER 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 SP AusNet's demand forecasts, and to assist the AER to 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 SP AusNet as part of its proposed access arrangement; specifically, SP AusNet's consultant report on demand forecast, demand forecast spreadsheets, access arrangement information, the regulatory information notice (RIN) pro forma
* additional information provided by SP AusNet in response to the AER's information requests
* a report provided by ACIL[[575]](#footnote-575)
* public submissions received in the course of consulting on the access arrangement proposal.[[576]](#footnote-576)
  1. Reasons for draft decision

The AER approves SP AusNet'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, SP AusNet used some assumptions and data that have biased the modelling results. In particular:

* estimates of Effective Degree Day (EDD) used by SP AusNet to weather normalise historic gas consumption have biased the demand forecasts
* the growth rate of new dwellings used to forecasts residential customer numbers in Central and West regions are outdated.

The AER considers that SP AusNet's demand forecasts are not arrived at on a reasonable basis and do not represent the best forecasts possible in the circumstances.[[577]](#footnote-577)This section sets out the reasons for the AER's decision.

* + 1. Minimum, maximum and average demand

Under the NGR, SP AusNet's access arrangement information must include minimum, maximum and average demand for the earlier access arrangement.[[578]](#footnote-578) 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. SP AusNet 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

SP AusNet applied a comprehensive and statistically rigorous approach to develop its proposed demand forecasts. The approach establishes the relationship between demand and its key drivers for each tariff class. The AER considers that SP AusNet's consultant (CIE) has been transparent in setting out its methods and assumptions. The AER's consultant (ACIL) also confirmed this view.[[579]](#footnote-579)

The AER reviewed each of the four steps of CIE's forecast methodology. It identified a number of methodological issues that have the potential to introduce bias and distortions to the modelling results. ACIL also identified some weakness in SP AusNet's forecast methodology. The key issues identified by the AER and ACIL include:

* the absence of dynamics in the estimation
* endogenous variables among explanatory variables
* not accounting for non-linearity in the forecasting methodology
* the potential for omission of variables affecting demand, which could explain the low coefficients of determination (R square).

ACIL reviewed each of these issues to determine how they could be addressed and whether addressing them is likely to improve SP AusNet's forecasting methodology.[[580]](#footnote-580) ACIL stated that it is unclear whether further effort directed to improving the model is likely to produce significantly better or more reliable forecasts.[[581]](#footnote-581)

The AER understands that the relationship between the demand for gas and its key drivers is complex. The combination of this complexity and data issues may have limited the explanatory power of forecasting models.[[582]](#footnote-582) The AER considers that an attempt to improve the model (in terms of either the range of explanatory variables included or the estimation of demand coefficients) is unlikely to result in significantly better or more reliable forecasts. In this context, and given SP AusNet'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.[[583]](#footnote-583) In applying its forecasting methodology, SP AusNet used some assumptions and data that have biased and distorted the modelling results. This section outlines the AER's reasons for its conclusion that the inputs and assumptions used by SP AusNet result in forecasts which are not consistent with r. 74(2) of the NGR.

Weather normalization of historical data

The weather has a significant effect on the demand for gas. There is a strong relationship between gas demand and climate. Lower than normal temperatures increase gas demand for residential heating. Given the strong relationship between gas demand and the weather, the AER recognises the need to adjust actual gas consumption to ensure that one-off events do not unduly bias demand forecasts.

SP AusNet used measures of annual effective degree days (EDD) derived by the CSIRO to normalise historic gas consumption data.[[584]](#footnote-584) The CSIRO's analysis reveals a warming trend over the past 60 years for Victoria.[[585]](#footnote-585) SP AusNet 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.[[586]](#footnote-586)

ACIL reviewed SP AusNet's approach to weather normalisation by assessing the data used and the assumptions made. ACIL noted that the key issue with SP AusNet's approach related to the assumption about normal weather between 2005 and the 2011. ACIL identified that SP AusNet's forecasts are based on a projection of EDD between 2005 and 2011. 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. [[587]](#footnote-587) Such historical data has been published by AEMO following its 2012 review of weather standards for gas forecasting.[[588]](#footnote-588)

In its review of SP AusNet's proposed demand forecasts, ACIL compared CSIRO's EDD and AEMO's EDD. 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.[[589]](#footnote-589) ACIL found that the CSIRO's projection results in a higher EDD value relative to the AEMO's EDD. Figure 9.4 shows that AEMO's trend-projected annual EDD standard for calendar year 2012 is 1309. This is 31 EDD higher than the value based on the CSIRO Urban Heating Island (UHI) effect plus medium anthropogenic global warming.[[590]](#footnote-590)

* + - 1. Comparison of CSIRO EDD projections with AEMO EDD trended values

|  |
| --- |
|  |

Source: ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, p. 29.

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 the lower EDD trend based on the CSIRO forecast is to make the demand forecasts lower, on average, for each year of the regulatory period than they would have been if the AEMO regression line was used as the basis of weather normalisation.[[591]](#footnote-591)

In its submission, the EUCV noted that the demand forecasts proposed by the Victorian gas distribution businesses could be understated.[[592]](#footnote-592) 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 demand forecasts for the distribution networks.

The AER accepts ACIL's findings on weather normalisation. 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 SP AusNet to use the current AEMO EDD standard as the basis for weather normalising the historical data. The AER requires SP AusNet's to amend its demand forecasts as outlined in the revisions section below.

Forecast of tariff V residential customer usage

In its submission, Origin noted that SP AusNet is projecting a continuing downward trend in residential per capita gas consumption despite the likelihood of increasing penetration of gas appliances.[[593]](#footnote-593) The AER reviewed SP AusNet's assumptions on the effect of government policies that affect gas demand. Government policies related to construction standards and building design have an impact on demand. As buildings become more energy efficient, their gas usage (if connected to the network) is lower. If all other things remain the same, the improvement in building and appliance efficiency combined with the impact of solar hot water system uptake over time is likely to weaken the increase in gas usage resulting from the increased penetration of gas appliances. The AER considers that SP AusNet's projection of a continuing downward trend in residential per capita gas consumption is arrived at on a reasonable basis.

Forecast of tariff V residential customer numbers

For tariff V residential customer number forecasts, SP AusNet used growth rate estimates of new dwellings derived by the Victorian Department of Planning and Community Development, published in 2009.[[594]](#footnote-594) SP AusNet applied these growth rate estimates to the most recent number of its residential customers.[[595]](#footnote-595) In its demand forecast report to SP AusNet, CIE noted that the Victorian Department of Planning and Community Development was to publish updated growth rate estimates by mid-2012. [[596]](#footnote-596) CIE indicated that these updated growth rates could be used to update SP AusNet's proposed demand forecasts.[[597]](#footnote-597) The AER notes that the Victorian Department of Planning and Community Development has now published the updated growth rates. The AER considers that to produce forecasts that are arrived at on a reasonable basis and represent the best estimate possible in the circumstances, it is appropriate to use the most current relevant data. The AER requires SP AusNet to amend its demand forecasts to account for the recent data as outlined in the revisions section below.

Tariff V non–residential customer numbers

For non-residential customer numbers in the Central and West regions, SP AusNet assumed that each additional 1,000 residential customers resulted in an additional 6 non-residential (commercial/industrial) customers.[[598]](#footnote-598) The AER considers that the growth pattern of the commercial base may be broadly consistent with the growth in residential customer base. The ESC supported the view that commercial and industrial connections are generally proportionate to new dwelling completions.[[599]](#footnote-599)

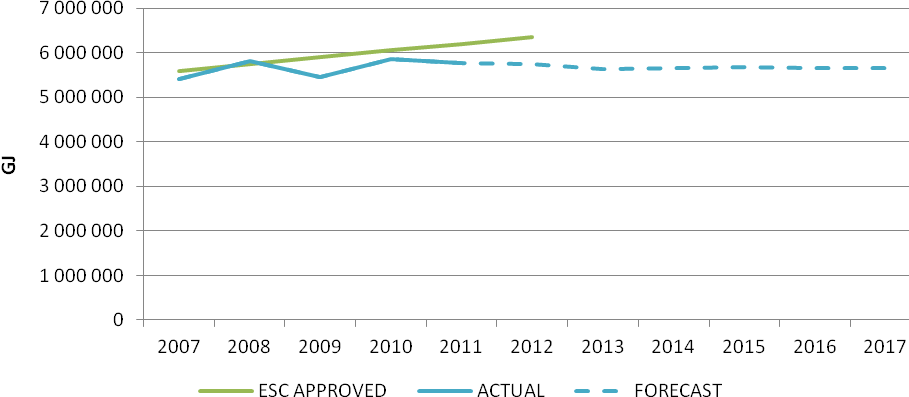
CIE analysed SP AusNet's customer database for the period 2003 to 2011 to determine the assumed relationship between residential and commercial/industrial customers.[[600]](#footnote-600) CIE analysis shows that the number of new commercial customers for an additional 1,000 residential customers averages 11.4 for 2003 to 2011.[[601]](#footnote-601) It also shows that for 2005 to 2011, each additional 1000 residential customers resulted in an additional 6.5 commercial customers.[[602]](#footnote-602) The AER understands that SP AusNet's assumption of a 6/1000 residential–commercial customer ratio is arrived at by excluding data points for 2003 and 2004 from the sample. SP AusNet did not identify any specific policies which might explain the exclusion of these years from the sample.

The AER requested SP AusNet to justify the exclusion of these two years from the dataset.[[603]](#footnote-603) In response, SP AusNet submitted that there was a policy change in 2003, where TXU Networks (the former owner of the gas network) created the split of tariff V between residential and non–residential customers.[[604]](#footnote-604) After the split, retail data was relied upon to identify the customers for each grouping. SP AusNet considered that the growth in non‐residential connections for the years 2003 and 2004 may have been artificially high in the period after this policy change given retailers identified existing customers and moved them to the correct category.[[605]](#footnote-605) The AER accepts this explanation and considers that it is reasonable to exclude the years 2003 and 2004 from the dataset as per SP AusNet's approach.

Tariff V non-residential usage – price elasticity of demand

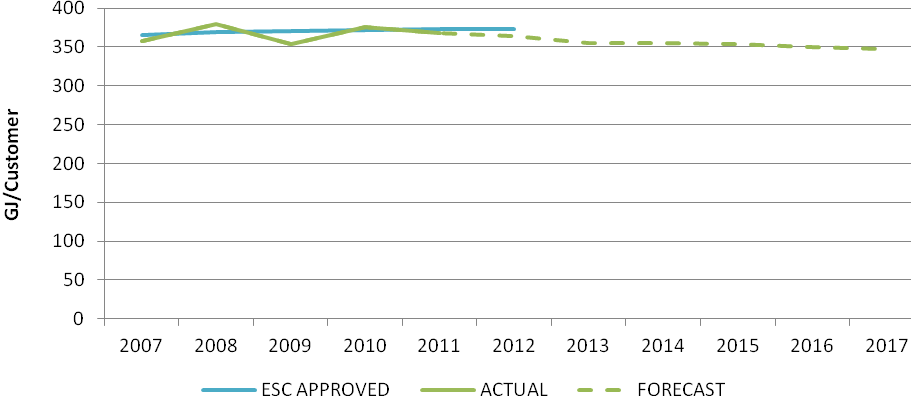
Tariff V non-residential gas consumption forecasts exhibit a break in trend (Figure 9.5 and Figure 9.6).

* + - 1. SP AusNet–Tariff V non–residential consumption, approved, actual and forecast 2007 to 2017



Source: SP AusNet, Access arrangement information, 30 March 2012, and SP AusNet Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, 7 March 2008 Chapter 11.

* + - 1. SP AusNet–Tariff V non–residential average consumption, approved, actual and forecast 2007 to 2017



Source: SP AusNet, Access arrangement information, 30 March 2012, and SP AusNet Regulatory Information Notice; ESC, Gas Access Arrangement Review 2008-2012 - Final Decision, 7 March 2008 Chapter 11.

A break in trend can result from a number of factors. The AER reviewed the assumptions that SP AusNet relied on to forecast tariff V non–residential gas usage. The AER notes that SP AusNet used an estimate of price elasticity of demand of -0.77 to forecast tariff V non‑residential gas usage. The price elasticity of -0.77 was estimated by CIE using data relevant to SP AusNet's network area.[[606]](#footnote-606) This value of price elasticity is higher than that assumed by Envestra (-0.35) and Multinet (-0.28) in preparing their demand forecasts for the 2013–2017 access arrangement period.[[607]](#footnote-607) CIE also estimated a price elasticity for tariff V residential gas demand of -0.17, which is lower than that assumed by Envestra (-0.30) and Multinet (-0.28).[[608]](#footnote-608) A higher value of price elasticity for tariff V non–residential demand has the impact of overstating SP AusNet's proposed gas demand forecasts for this customer group. Similarly, a lower value of price elasticity for tariff V residential demand has the impact of understating SP AusNet's proposed gas demand forecasts for this customer group. The AER notes the large difference in price elasticity between the two customer groups (-0.60). ACIL noted that on a volume–weighted average basis, using the elasticity estimates and SP AusNet's actual consumption data for residential and non-residential tariff V customers, the price elasticity across all tariff V customers would be -0.27.[[609]](#footnote-609) ACIL concluded that on this basis, the CIE price elasticity estimates can be viewed as being comparable to the assumptions made by Envestra and Multinet.[[610]](#footnote-610) The AER considers the impact of the understated tariff V residential demand elasticity is likely to be offset by an overstated tariff V non-residential demand elasticity estimate.

SP AusNet submitted that CIE's estimate of price elasticity of demand for gas is the best available estimate.[[611]](#footnote-611) The AER understands the difficulties involves in estimating price elasticity. The AER agrees that CIE's estimates may be the best estimates currently available in the Victorian gas industry because these are based on actual data. Given the context, the AER considers that SP AusNet's assumption on the value of price elasticity has been arrived at on a reasonable basis.

* 1. Revisions

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

Revision 9.1: Amend the access arrangement information to delete total customer numbers tables 4.2 and 4.4), total usage (tables 4.7 and 4.10) and replace with the following:

* + - * 1. AER draft decision on SP AusNet's tariff V

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Residential tariff V |  |  |  |  |  |
| Customer numbers | 607,990 | 623,030 | 638,550 | 654,495 | 668,355 |
| Demand (TJ) | 29,782 | 29,984 | 30,198 | 30,414 | 30,571 |
| Non–residential tariff V |  |  |  |  |  |
| Customer numbers | 15,829 | 15,925 | 16,028 | 16,130 | 16,219 |
| Demand (TJ) | 5,665 | 5,708 | 5,720 | 5,708 | 5,703 |

Source: AER analysis

Revision 9.2: Amend the access arrangement information to delete table 4.11 and replace with the following:

* + - * 1. AER draft decision on SP AusNet's tariff D

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Tariff D |  |  |  |  |  |
| Customer numbers | 289 | 289 | 289 | 289 | 289 |
| Demand - MHQ (GJ) | 10,200 | 10,200 | 10,200 | 10223 | 10259 |

Source: AER analysis

* + - * 1. AER draft decision on SP AusNet's tariff M

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Tariff M |  |  |  |  |  |
| Demand - MHQ (GJ) | 187 | 187 | 187 | 187 | 188 |

Source: AER analysis

1. Tariff setting

This attachment outlines the AER’s assessment of the reference tariffs proposed by SP AusNet against the requirements of the NGR, specifically rr. 93 and 94 of the NGR. 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 SP AusNet's proposed structure 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 in 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. SP AusNet's proposal

SP AusNet proposed to maintain the current structure of its reference tariffs.[[612]](#footnote-612) The reference tariff classes proposed by SP AusNet are outlined in Table 10.1.[[613]](#footnote-613)

SP AusNet proposed to change the structure of its ancillary reference service tariff by removing one ancillary reference service from its current ancillary reference services (Table 10.2).[[614]](#footnote-614)

* + - * 1. SP AusNet – reference services, tariff classes and tariff parameters for the 2013–17 access arrangement period

|  |  |  |
| --- | --- | --- |
| Reference services | Tariff classes | Tariff parameters |
| Residential services | Residential tariff V Central  Residential tariff V West  Residential tariff V adjoining Central  Residential tariff V adjoining West | Fixed base charge  Stepped variable usage charge, including seasonal pricing |
| Non–residential services | Non–residential tariff V Central  Non–residential tariff V West  Non–residential tariff V adjoining Central  Non–residential tariff V adjoining West | Fixed base charge  Stepped variable usage charge, including seasonal pricing |
| Non–residential tariff D Central  Non–residential tariff D West  Non–residential tariff D adjoining Central  Non–residential tariff D adjoining West | Stepped variable demand charge |
|  | Non–residential tariff M Central  Non–residential tariff M West  Non–residential tariff M adjoining Central  Non–residential tariff M adjoining West | Stepped variable demand charge |

Source: SP AusNet, Access arrangement information, 30 March 2012, p. 240–243.

* + - * 1. SP AusNet – ancillary reference service tariff structure

|  |  |  |
| --- | --- | --- |
| 2008–12 access arrangement period (Current ) | 2013–17 access arrangement period (Proposed) | Parameter |
| Meter and gas installation test | Disconnection service | Fixed charge |
| Disconnection – meter removal | Reconnection service | Fixed charge |
| Disconnection – locks or plugs | Special meter reading service | Fixed charge |
| Reconnection |  | Fixed charge |
| Special meter reads |  | Fixed charge |

Source: SP AusNet, Access arrangement information, 30 March 2012, p 214 and p. 243. ESC, Gas Access Arrangement Review 2008-12 - Final Decision, 7 March 2008, p 547

* 1. AER approach

In a full access arrangement, a service provider is required to specify for each reference service the reference tariff and the proposed approach to the setting reference tariffs.[[615]](#footnote-615) This is done by:

* explaining how revenues and costs are allocated, including the relationship between costs and tariffs [[616]](#footnote-616)
* defining the tariff classes[[617]](#footnote-617)
* comparing the revenue to be raised by each reference tariff with the cost of providing each individual reference service[[618]](#footnote-618)
* explaining any pricing principles it employed[[619]](#footnote-619)
* describing any pricing principles it employed.[[620]](#footnote-620)

The AER is required to assess SP AusNet's proposed reference tariffs. Where the AER does not approve SP AusNet's proposal, the AER must determine the initial reference tariffs.

In its assessment of SP AusNet's proposed reference tariff, the AER considered:

* information provided by SP AusNet, particularly:
* the access arrangement information (AAI) – this document provides details of SP AusNet's reference tariffs, including its costs allocation methodology, pricing principles, and information demonstrating the economic efficiency of SP AusNet reference tariffs[[621]](#footnote-621)
* Part B of SP AusNet's access arrangement – this document sets out SP AusNet's reference tariffs and reference tariff policy[[622]](#footnote-622)
* additional information provided by SP AusNet 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 SP AusNet to specify a reference tariff for each reference service.[[623]](#footnote-623) In assessing SP AusNet's proposed reference tariffs, the AER first considers what is (or are) the reference service(s) for the purpose of r. 101 of the NGR. The AER's draft decision on what constitutes the reference service 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 r. 93 of the NGR and limited discretion under r. 94 of the NGR.[[624]](#footnote-624)

The AER considered how SP AusNet intends to charge for reference services. Firstly, the AER assessed how SP AusNet 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.[[625]](#footnote-625) Costs must also be allocated to the reference service and other services to which the cost is directly attributable.[[626]](#footnote-626)

Secondly, the AER assessed how SP AusNet grouped its customers into tariff classes.[[627]](#footnote-627) Rule 94(1)-(2) 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 provider's distribution system. The grouping of customers with similar connection and usage characteristics in the same tariff class reveals consistency with r. 94(1)–(2) of the NGR, 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[[628]](#footnote-628)
* whether the tariff takes into account transaction costs associated with the tariff[[629]](#footnote-629)
* whether the tariffs take into account the long run marginal costs of reference services[[630]](#footnote-630)
* whether customers belonging to the relevant tariff class are able or likely to respond to price signals.[[631]](#footnote-631)
  1. Reasons for draft decision

The AER approves SP AusNet's proposed structure of reference tariffs. The AER considers the proposed tariff structure complies with the requirements of rr. 93 and 94 of the NGR. However, the AER, taking into account the revenue and pricing principles, considers that the proposed reference tariffs must be amended as set out in the revenue section of the draft decision. This revision is required to reflect the changes to forecast total revenue and forecast demand. The changes in total revenue are also outlined in the revenue section of the draft decision and changes to forecast demand are outlined in attachment 9 of this draft decision.

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.[[632]](#footnote-632) 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.[[633]](#footnote-633)

The AER has considered the EUCV submissions in making this draft decision on SP AusNet's proposed reference tariffs.

* + 1. Allocation of revenues and costs to reference tariffs

The AER is satisfied that SP AusNet's proposed allocation of revenues and costs to reference services complies with r. 93(1)–(2) of the NGR for the following reasons:

* SP AusNet submitted that only costs related to haulage reference services and ancillary reference services are included in the revenue building block calculation.[[634]](#footnote-634) Costs incurred in providing non–reference services are not included in the revenue building block calculation because they are directly recovered from the particular customers requesting the service.[[635]](#footnote-635)
* SP AusNet provided the AER with information outlining its stand-alone costs, long run marginal costs and incremental costs.[[636]](#footnote-636) SP AusNet's submitted that it allocates costs between haulage reference services according to costs drivers such as gas usage profiles.[[637]](#footnote-637) The AER reviewed SP AusNet's cost allocation spreadsheets and confirms that this is the case. These spreadsheets also allocate the building block revenue components to each tariff class based on a combination of costs allocators.

For the above reasons, the AER is satisfied that SP AusNet's approach to allocating revenue and costs between reference services and non–reference services complies 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. SP AusNet proposed to maintain its current tariff classes (Table 10.1). To group customers into tariff classes, SP AusNet relied on customers' connection and gas usage characteristics such as anytime maximum demand, location and contribution to overall system peak demand.[[638]](#footnote-638) The AER considers that these characteristics are likely to drive costs within SP AusNet's gas distribution network. Therefore, using them to group customers in tariff class is appropriate. The AER agrees with SP AusNet that:

* anytime maximum demand impacts the size of a customer's connection, which influences the level of network the customer is connected to, and therefore the proportion of assets that are required to provide pipeline services[[639]](#footnote-639)
* grouping customers by location is likely to reflect the different costs of supplying pipeline services to and within broad geographic areas. In addition, this approach to grouping customers by location is likely to minimise transaction costs associated with transferring customers between classes once a customer has been connected to SP AusNet's network.[[640]](#footnote-640)
* different customer classes will have different load factors across the year, which leads to different utilisation patterns of SP AusNet's asset base across the year. This leads to different customers contributing differently to the costs of services provided by SP AusNet. In addition, SP AusNet's long run marginal cost analysis splits customers based on their peak and off-peak consumption.[[641]](#footnote-641)

Based on the above reasons, the AER is satisfied that the proposed tariff classes are consistent with the requirements of the NGR.[[642]](#footnote-642)

SP AusNet proposed to rationalise its ancillary reference service tariffs. In particular, SP AusNet proposed to reclassify its current meter and gas installation test service (Table 10.2).[[643]](#footnote-643)as a non–reference service

The meter and gas installation test is an on-site test to check the accuracy of a meter and the soundness of a gas installation to determine whether the meter is accurately measuring the quantity of gas delivered.[[644]](#footnote-644)

The AER does not approve SP AusNet's proposal to rationalise its ancillary reference services. The reasoning for the AER's decision is discussed in attachment 1 of this draft decision. The AER requires SP AusNet to amend its proposed tariffs for ancillary service by including a tariff for the meter and gas installation test service.

Tariff classes and revenue limits

The AER is satisfied that SP AusNet's proposed reference tariffs are consistent with the NGR requirements.[[645]](#footnote-645) 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.[[646]](#footnote-646) The AER reviewed SP AusNet's definitions of avoidable and standalone costs for the residential, non–residential and demand tariff classes. It considers that these definitions are acceptable for assessing compliance with rule 94(3). SP AusNet demonstrated that for each tariff within the tariff V and tariff D classes, the expected tariff revenue lies on or between the avoidable and standalone costs (Table 10.3 and 0).[[647]](#footnote-647)

* + - * 1. SP AusNet - reference tariffs V: avoidable costs, expected revenues and stand alone costs ($2011)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tariff class | Avoidable costs | Weighted average revenue | Stand alone cost | Compliance with rule 94(3) |
| Tariff V residential – Central | $3.16 | $540 | $1,486 | Yes |
| Tariff V residential – West | $3.17 | $455 | $1,492 | Yes |
| Tariff V residential – Adjoining Central | $2.07 | $577 | $1,054 | Yes |
| Tariff V residential – Adjoining West | $3.23 | $804 | $1,514 | Yes |
| Tariff V non residential – Central | $4.11 | $1,425 | $10,043 | Yes |
| Tariff V non residential – West | $2.64 | $937 | $6,546 | Yes |
| Tariff V non residential – Adjoining Central | $4.16 | $4,171 | $10,161 | Yes |
| Tariff V non residential – Adjoining West | $5.40 | $5,284 | $13,118 | Yes |

Source: SP AusNet, Access arrangement information, 30 March 2012, p.238.

The AER notes that the average revenue for tariff M customers is above the stand alone cost (Table 1.4). SP AusNet explained that this is only the case when a group of tariff M customers: (a) are assumed to be situated directly adjacent to the transmission network, and (b) together utilise the full capacity (387GJ/hr) of the city gate. SP AusNet submitted that this situation is not observed in its network. SP AusNet's largest tariff M customer has a capacity of less than 105GJ/hr. When this capacity is taken into account, the calculated stand alone cost is above the revenue generated as required under r. 94(3) of the NGR (see last row in Table 1.4). SP AusNet also submitted that none of its large tariff M customers is situated within a distance from the transmission network that would make a bypass economical. The AER accepts the above explanation.

For the above reasons, the AER is satisfied that SP AusNet's proposed reference tariffs are consistent with r. 94(3) of the NGR. Therefore, the AER approves the structure of reference tariffs as proposed by SP AusNet for the 2013–17 access arrangement period.

* + - * 1. SP AusNet – reference tariffs D and M: avoidable costs, expected revenues and stand alone costs ($2011)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tariff class | Avoidable costs | Weighted average revenue | Stand alone cost | Compliance with rule 94(3) |
| Tariff D  0m from transmission with MHQ of 387GJ/hr  Customers above this threshold residential – Central | $240 per MHQ  $192–$82 per MHQ | $459per MHQ  $442–$424 per MHQ | $653 per MHQ  $1,902–$615 per MHQ | Yes |
| Tariff M  0m from transmission assuming usage equivalent to citygate capacity of 387GJ/hr  825m from transmission assuming usage equivalent to citygate capacity of 387GJ/hr  0m from transmission assuming largest tariff M customer of 105MHQ and citygate capacity of 387GJ/hr | $240 per MHQ  $240 per MHQ  $240 per MHQ | $901per MHQ  $901 per MHQ  $901 per MHQ | $653 per MHQ  $902 per MHQ  $2408 per MHQ | No  Yes  Yes |

Source: SP AusNet, Access arrangement information, 30 March 2012, p.239

Tariffs and charging parameters

Rule 94(4)(a) of the NGR requires that a tariff takes into account the long run marginal cost for the reference service or, in the case of a charging parameter, for the element of the service to which the charging parameter relates. In its analysis of avoidable and standalone costs, SP AusNet used the Average Incremental Cost (AIC) approach to calculate the long run marginal cost (LRMC).[[648]](#footnote-648) The AER considers this approach appropriate as it is well suited to situations where there is fairly consistent profile of investment over time to service growth in demand. The AER reviewed the assumptions that SP AusNet made to derive the LRMC.[[649]](#footnote-649) The AER considers that the approach to derive the LRMC and the underlying assumptions are acceptable based on its review of the access arrangement information section 15.5.1. SP AusNet stated as a result of its LRMC analysis, both residential and commercial reference tariffs have peak and off–peak pricing with marginally higher pricing in the peak (winter) period.[[650]](#footnote-650) SP AusNet submitted that to account for LRMC it proposed to retain existing price differentials. Further, its reference tariff V charging structure account for the fact that:[[651]](#footnote-651)

* the elasticity of demand for off peak gas is low, therefore, it does not consider there to be any material efficiency benefits from adopting variables prices that exactly replicate the calculated LRMC of supply, relative to its proposed pricing levels.
* there would be significant customer impacts from readjusting tariffs to perfectly reflect the calculated LRMC of supply, as any reduction in off peak revenue would be recovered through higher fixed costs, which would disproportionately impact on low volume users.

Based on the above reasons, the AER considers that the proposed reference tariff structure is consistent with r. 94(4) of the NGR.

* 1. Revisions

Before the access arrangement can be approved, SP AusNet must amend the proposed reference tariffs as outlined below.

Revision 10.1: Amend the proposed amend reference tariffs as outlined in revenue attachment of the this draft decision.

Revision 10.2: Amend section 10 of the access arrangement Part B to delete the table and replace with the following:

|  |  |
| --- | --- |
| Ancillary Reference Tariff | Price  (inclusive of GST) |
| Disconnection  Disconnection by the carrying out of work being the use of locks or plugs at a Metering Installation in order to prevent the withdrawal of Gas at the Distribution Supply Point.  Disconnection means the carrying out of work to prevent the withdrawal of Gas at a Distribution Supply Point | $53.31 |
| Reconnection of Meter  Reconnection by turning on Supply, including the removal of locks or plugs used to isolate Supply or reinstallation of a Meter if it has been removed, performance of a safety check and the lighting of appliances where necessary.  Turn On of service to a Distribution Supply Point which has previously been disconnected | $53.31 |
| Special Meter Reads  Meter reading for a DSP in addition to the scheduled meter readings that form part of the Haulage Reference Services  Undertaken at the request of the User or Customer, not part of the periodic meter read schedule | $8.26 |
| Meter and gas installation test | include relevant price |

1. Tariff variation mechanism

This attachment sets out the AER’s consideration of SP AusNet's proposed reference tariff variation mechanism. The reference tariff variation mechanism:

* permits building block revenues to be recovered smoothly over the access arrangement period, subject to any differences between forecast and actual demand
* accounts for actual inflation
* accommodates other tariff adjustments that may be required, such as for an approved cost pass through event
* sets administrative procedures for the approval of any proposed changes to tariffs.
  1. Draft decision

The AER does not approve SP AusNet's proposed tariff variation mechanisms for the   
2013–17 access arrangement period. The AER considers that some elements of SP AusNet's proposed tariff variation mechanism are not consistent with the NGL and the NGR or that there are alternatives to some elements of SP AusNet's proposal that better meet the purpose of the NGR and NGL. In particular, the AER considers:

* the proposed magnitude and level of the rebalancing constraint; the variation process; and certain elements in the cost pass through tariff variation mechanism 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 proposed financial failure of a retailer and new connection process events must be removed from the cost pass through mechanism
* a national energy customer framework event and mains replacement event must be included in the definition of a Relevant Pass Through Event
* the proposed cost pass through mechanism should be amended to enable the AER to apply a consistent approach to its assessment of pass through applications.

The reasons for the AER's decision are further discussed below.

* 1. SP AusNet's proposal

SP AusNet proposed a tariff variation mechanism that is generally consistent with that of its current access arrangement other than updated values for the X factor, an increased rebalancing constraint, a carbon tax true up and demand true up.[[652]](#footnote-652) The proposed tariff variation mechanism includes:

* 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

SP AusNet proposed an annual tariff variation mechanism in the form of a weighted average price cap (WAPC) formula, consistent with its current access arrangement.[[653]](#footnote-653) SP AusNet's proposed tariff control formula is:[[654]](#footnote-654)

For the calendar year 2013



where:

is the CPI for year t[[655]](#footnote-655)



is for each haulage reference service the proposed haulage reference tariff for haulage reference tariff component j of haulage reference tariff i in calendar Year t;



is for each haulage reference service the haulage reference tariff being charged for haulage reference tariff component j of haulage reference tariff i in calendar year t-1



is for each haulage reference service the quantity of haulage reference tariff component j of haulage reference tariff i that was sold in calendar year t-2



is – 0.0388



 is the licence fee factor for calendar year t.

 is an approved pass through factor for calendar year t

 is the approved pass through factor in relation to carbon liability for calendar year t-1

For the calendar year 2014 to 2017



Where all the variables are defined as above and:

is 0



The key proposed changes to SP AusNet's tariff variation mechanisms for haulage reference services are:

* two new elements in the adjustment factor ():[[656]](#footnote-656)
* the carbon tax true up required to recover carbon costs
* the demand risk adjustment factor (demand true up) – SP AusNet submitted that this factor is intended to manage the risk of a material reduction in gas usage following a material increase in the wholesale gas prices[[657]](#footnote-657)
* an increase in the value of the rebalancing constraint from two per cent to five per cent.[[658]](#footnote-658)
* the application of the rebalancing constraint at the haulage reference service level rather than at the component/tariff class level as in the current access arrangement.[[659]](#footnote-659)

Ancillary services

SP AusNet proposed to maintain the current tariff variation for ancillary reference services, which increase tariffs by the change in CPI on an annual basis.[[660]](#footnote-660)

* + 1. Cost past through tariff variation mechanism

SP AusNet included a cost pass through tariff variation mechanism in its access arrangement proposal to ensure it can recover incremental costs resulting from relevant pass through events.[[661]](#footnote-661) SP AusNet proposed to maintain the cost pass through events defined in its current access arrangement and to these include additional cost pass through events. The proposed cost pass through events are:[[662]](#footnote-662)

* a change in taxes event
* the financial failure of a retailer event
* a declared retailer of last resort event
* a new connection process event
* a Victorian energy efficiency target scheme event[[663]](#footnote-663)
* an insurer credit risk event
* an insurance event
* a natural disaster event
* a terrorism event
* a regulatory change event.

SP AusNet proposed a materiality threshold of one per cent of forecast revenue for the relevant year in the access arrangement period.[[664]](#footnote-664)

* + 1. Annual tariff variation process

SP AusNet proposed to maintain the current tariff variation process in the next access arrangement period.[[665]](#footnote-665) In particular, it proposed to notify the AER in respect of any reference tariff variations at least to 35 days prior to the commencement of the next calendar year.[[666]](#footnote-666)

* 1. Assessment approach

Under the NGR, a reference tariff variation mechanism for an access arrangement:

* must be designed to equalise (in present value terms):[[667]](#footnote-667)
* 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:[[668]](#footnote-668)
* 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 the variation of reference 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[[669]](#footnote-669)

A reference tariff variation mechanism must give the AER adequate oversight or powers of approval over variation of the reference tariff.[[670]](#footnote-670)

The AER is required to have regard to various factors in deciding whether a reference tariff variation mechanism is appropriate for an access arrangement. These factors include:[[671]](#footnote-671)

* 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 structure and administrative costs of the AER, SP AusNet and natural gas consumers or potential consumers.[[672]](#footnote-672) 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 SP AusNet 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 SP AusNet'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).[[673]](#footnote-673) The AER explicitly considered the implications of SP AusNet's proposal for the allocation of operational risk amongst the pipeline operator and users of pipeline services. Further, the AER assessed the implications of SP AusNet'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 SP AusNet's proposed reference tariff variation mechanism.[[674]](#footnote-674) Accordingly, the AER can reject a proposed element of the reference tariff variation mechanism if it considers a preferable alternative exists that complies with applicable requirements of the NGL and NGR and is consistent with the applicable criteria prescribed by the NGL and the NGR. To reach its decision, the AER, having regard to the above factors:

* 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 broader purpose of the regulatory framework.

In making its decision, the AER relied on:

* information provided by SP AusNet; particularly, the access arrangement information (AAI) and Part B of the proposed access arrangement – these documents provide details of SP AusNet's proposed price control mechanism
* additional information provided by SP AusNet 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 SP AusNet's proposed tariff variation mechanism for the 2013–17 access arrangement period. The AER considers there are alternatives to some elements of the proposed tariff variation mechanism that better promote the purpose of the NGR.[[675]](#footnote-675) The elements that the AER does not approve relate to limited aspects of SP AusNet's proposal.

This section sets out the reasons behind the AER's decision under the following headings:

* annual tariff variation mechanism
* cost pass through tariff variation mechanism
* procedures for oversight and approval of tariff variations.
  + 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 building block costs associated with reference services and the portion of total revenue allocated to reference services. SP AusNet’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 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 the draft decision and changes to forecast demand are outlined in attachment 9 of this draft decision.

Annual tariff variation formula

The AER approves SP AusNet's proposed annual tariff variation formula for reference services. The proposed formula is consistent with that of the current access arrangement in that it provides for inflation adjustment, an x factor adjustment, a licence fee factor adjustment and a cost pass through factor adjustment (adjustment factor).

The annual tariff adjustment formula proposed by SP AusNet appropriately references CPI as an indicator of inflation for an adjustment to take effect in the relevant calendar year (t). Further, the definition of CPI appropriately references the CPI change from the September quarter immediately preceding the start of the relevant calendar year (t-1) to the September quarter immediately preceding the calendar year (t-1); that is 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 SP AusNet's costs.

While approving the structure of the proposed formula, the AER does not approve some elements of that formula, including the proposed:

* magnitude of rebalancing constraint and the level at which it should apply
* incorporation of the demand true up in the cost pass through adjustment factor
* X factors.

The reasons for the AER decision on the proposed rebalancing constraint and the demand true up are discussed below. The AER's reasoning for not approving the proposed x factor values is discussed in the revision section of this draft decision.

Rebalancing constraint

The AER approves SP AusNet's proposal not to apply the rebalancing constraint in the first year of the access arrangement period. The AER considers that this is consistent with r. 97(3)(d) of the NGR. SP AusNet's proposal is also consistent with how the rebalancing constraint applies in other gas decisions made by the AER and in the electricity industry.[[676]](#footnote-676)

The AER does not approve the proposed changes to the magnitude (from two to five per cent) and level of the rebalancing constraint (application at the haulage reference level). In assessing these elements of the proposed tariff variation mechanism, the AER had regard to the relevant factors under r. 97(3) of the NGR. In summary:

* The proposed rebalancing constraint could lead to increased price volatility and potential price shocks to customers within the regulatory period. The AER considers that such outcomes are not consistent with the NGO and the RPP.
* The AER notes that the proposed rebalancing constraint is inconsistent with SP AusNet's current arrangements; the current arrangements for the other Victorian gas service providers; and the AER's recent decisions for Queensland and South Australia service providers access arrangement.
* The AER considers that the current form of rebalancing constraint, in combination with the cost pass through provisions under the NGR provides SP AusNet with a reasonable opportunity to recover at least its efficient costs.

The AER's reasoning is outlined below.

The need for efficient tariff structures (rule 97(3)(a))

SP AusNet submitted that there is an argument under r. 97(3)(a) of the NGR and the NGO to increase the rebalancing constraint if it inhibits its ability to move towards, or maintain, cost reflective pricing within the regulatory period. The AER agrees that increasing the rebalancing constraint would provide greater flexibility to change prices which could be used to achieve greater cost reflectivity. However, it is not apparent that the current balancing constraint of two per cent has materially inhibited SP AusNet's ability to achieve cost reflective pricing in previous regulatory periods. In addition, 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.[[677]](#footnote-677) This is important for AGL in considering medium and long term contracts for consumers and its ability to manage the cost of providing services.[[678]](#footnote-678) The AER considers that such outcomes are not inconsistent with the RPP.[[679]](#footnote-679)

SP AusNet also proposed to apply the rebalancing constraint at the haulage reference service level rather than at the tariff component level as it is the case in the current access arrangement[[680]](#footnote-680).[[681]](#footnote-681) SP AusNet submitted that its ability to rebalance tariffs is limited by the amount of revenue that is generated by applying the full rebalancing constraint (CPI plus two per cent) on the lowest revenue producing component[[682]](#footnote-682).[[683]](#footnote-683) The AER understands that, in proposing to apply the rebalancing constraint at reference service level, SP AusNet intends to further move towards costs reflective tariffs; and in so doing, eliminate cross–subsidies between tariff components of a tariff class. However, the AER considers that cost reflectivity of reference tariffs can be better achieved by changing reference tariffs at the review of its access arrangement. The NGR and the NGL do not prohibit SP AusNet from changing (rebalancing) its reference tariffs at the time of access arrangement review.

Effects of the reference tariff variation mechanism on administrative costs (rule 97(3)(b))

SP AusNet submitted that its proposed changes to the rebalancing constraint are not likely to have a material impact on the administrative costs incurred by any stakeholder.[[684]](#footnote-684) The AER agrees with SP AusNet 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 rebalancing constraint differs from that of the current access arrangement.

Consistency between regulatory arrangements for similar services (rule 97(3)(d))

The AER notes that the proposed changes to the rebalancing constraint are not consistent with the current arrangements for the other Victorian gas service providers (Envestra and Multinet) and the AER's recent decisions for Queensland and South Australia service providers.[[685]](#footnote-685)

Other relevant factors 97(3)(e)—the NGO and RRP

SP AusNet submitted that an overly restrictive rebalancing constraint will inhibit a business's ability to adjust tariffs in response to within period exogenous events.[[686]](#footnote-686)

The majority of potential exogenous events that SP AusNet lists in its submission[[687]](#footnote-687) appear to relate to demand risk. In this case, the AER notes that, to the extent that these events or developments are foreseeable and imminent, these factors can be assessed in the context of demand forecasts. In fact SP AusNet's proposed demand forecast account for the demand risk associated with the potential increase in wholesale gas prices.[[688]](#footnote-688) Furthermore, the AER notes that SP AusNet has scope under the NGR to choose the form of price control and propose a cost reflective tariff structure that can reduce its demand risk.

As outlined above, the AER also considers that SP AusNet's proposed changes to the rebalancing constraint may create undue price volatility which is inconsistent with the NGO and the RPP. In sum, the AER considers that the current magnitude of rebalancing constraint (two per cent) in combination with the cost pass through provisions under the NGR provides SP AusNet with a reasonable opportunity to recover at least its efficient costs, consistent with the RPP.

For the above reasons, the AER does not approve the rebalancing constraint as proposed by SP AusNet. The AER considers that a rebalancing constraint of two per cent that applies at component/tariff class level is appropriate for the 2013–17 access arrangement period. The AER will consult with market participants to assess how this decision aligns with their preferences on price stability within and across access arrangement periods.

Ancillary reference services

The AER approves SP AusNet's proposed annual tariff variation formula for ancillary reference services. The proposed formula is consistent with the earlier access arrangement in that it provides for inflation adjustment and complies with r. 97(3)(d) of the NGR. [[689]](#footnote-689) The definition of CPI that SP AusNet proposed to use for the adjustment of ancillary reference services is similar to that of the haulage reference service tariff variation mechanism.

The AER approves that tariffs for ancillary reference services be varied annually from the second year of the access arrangement period as proposed by SP AusNet, that is, from 2014.[[690]](#footnote-690) The AER also approves SP AusNet's proposal to apply no rebalancing constraint for ancillary reference services. The AER considers that SP AusNet's proposal not to apply the rebalancing constraint to ancillary reference service tariffs is consistent with the AER's recent gas access arrangement review.[[691]](#footnote-691) In addition, this aligns with the approach taken by the other Victorian gas service providers, specifically, Envestra and Multinet. The AER considers that this is consistent with r. 97(3)(d) of the NGR.

* + 1. Cost pass through tariff variation mechanism

The AER approves most aspects of SP AusNet's proposed cost pass through tariff variation mechanism. However, the AER does not approve the following:

* the proposed introduction of an adjustment factor that incorporates a demand risk factor (demand true up) and a carbon tax true up to the cost pass through mechanism.
* cost pass through events and definitions.

The AER's reasons are set out below.

Adjustment factor

SP AusNet proposed an adjustment factor to implement a cost pass through mechanism. This adjustment factor provides a mechanism for implementing:

* the carbon tax true up required to recover carbon costs incurred in 2012
* any pass through amount approved by the AER pursuant to a pass through application relating to a relevant pass through event
* a demand true up.[[692]](#footnote-692)

The AER approves the first two elements of SP AusNet proposed adjustment factor. The cost past through mechanism is further discussed below.

Carbon tax amount

The AER understands that to recover its carbon tax costs for the 2013–17 access arrangement period, SP AusNet proposed to:

* include an opex allowance made up of the costs of administering the carbon tax scheme[[693]](#footnote-693)
* set a separate carbon tax tariff intended to recover its carbon tax liability costs with a true up mechanism each year.[[694]](#footnote-694)
* SP AusNet submitted that this true-up or correction factor mechanism will compare its cost recovery during a particular year (based on a forecast of the carbon liability for that year) with the actual impact of the carbon liability. An adjustment will be made in the following year(s) to ensure that SP AusNet only recovers the actual costs of the carbon liability, taking into account the time value of money.[[695]](#footnote-695) This true up mechanism incorporates two steps:
* a reference tariff adjustment in the regulatory year after costs are incurred
* an adjustment in the second year after costs are incurred.[[696]](#footnote-696)

SP AusNet’s two stage true–up process is driven by the timing of carbon unit acquittal under the framework established by the Clean Energy Legislative Package. Liable entities may not know their final actual carbon unit costs until up to eight months after the end of the regulatory year to which they relate. As proposed by SP AusNet, the first true–up would be undertaken using largely estimated carbon costs. The second proposed true–up would be undertaken using actual carbon costs. The second proposed true–up would only be necessary because the first would be undertaken using estimated costs. The AER notes that the proposed true up mechanism will mitigate risk of under or over recovery of costs from year to year.[[697]](#footnote-697) It must operate in symmetrical manner, that is, such that any changes in the carbon pricing would flow through to customers.

In this draft decision the AER approves SP AusNet’s proposed carbon cost opex allowance (attachment 6). The AER also approves SP AusNet's proposal to set a separate carbon with a true up mechanism. When assessing SP AusNet’s proposed tariffs, the AER will also assess whether the expected revenue from carbon tariff is less than or equal to the maximum carbon tariff revenue allowed.

However, the AER does not approve SP AusNet’s proposed two stage carbon cost true–up mechanism. The AER considers that a single true–up, undertaken when full actual carbon costs for a regulatory year are known, reduces complexity and is preferable to the proposed two stage true–up.

The AER requires that the carbon tax tariff formula be revised to specify that a single true–up will occur only when actual carbon cost data can be used for that true-up, precluding the use of estimates. The AER’s proposed revision is that a single carbon cost true–up take place in the second year after the year carbon costs are incurred.

Given the proposed true up mechanism, the AER requires that the access arrangement be revised to specify that SP AusNet must provide the AER with the relevant carbon tax related information that would enable the AER to appropriately assess the inputs of annual tariff variation mechanism.

Demand true up

The proposed demand true up is an adjustment factor that SP AusNet proposed to include in its tariff variation formula to mitigate the risk associated with the increase in wholesale gas prices. The AER does not approve the proposed demand true up for the reasons below.

SP AusNet submitted that the combination of domestic and international energy market conditions has created unprecedented uncertainty in the outlook for gas prices over the 2013–17 access arrangement period.[[698]](#footnote-698) There is a material asymmetric risk to demand forecasts resulting from the potential for wholesale gas prices to move to international parity. SP AusNet stated three factors that are likely to cause the movement of domestic wholesale gas prices to move to parity with international prices.[[699]](#footnote-699) These include:

* the commissioning of LNG facilities on the eastern seaboard towards the end of the 2013–17 access arrangement period
* the current integrated gas supply network would allow gas that would have otherwise been sold into the Victorian market to be transported to areas where these (LNG) facilities are located
* the opportunity cost of selling gas into the domestic market will increase even prior to the commissioning of these (LNG) plants. SP AusNet stated that the economics of withholding gas supply to the domestic market, to sell on the world market at some point in the future, will improve the closer the plants are to commissioning and the greater the capacity of these plants to process that withheld gas.[[700]](#footnote-700)

The AER agrees with SP AusNet that LNG facilities are likely to be commissioned towards the end of the 2013–17 access arrangement period. This is forecast in the 2011 gas statement of opportunities report (GSOO), which is published by the Australian Energy Market Operator (AEMO).[[701]](#footnote-701) This report discusses future developments in the Eastern and South Eastern Australian gas industry.[[702]](#footnote-702) In particular, the report outlines facilities dedicated to LNG export, including the planned export commencement dates for each project.[[703]](#footnote-703)

The AER considers that the commissioning of LNG facilities and the commencement of LNG export have the potential to cause domestic wholesale gas prices to increase. AEMO similarly noted that the development of an East coast LNG industry may result in domestic gas prices rising towards parity with international prices.[[704]](#footnote-704) However, based on the reasons below, the AER considers that Victorian gas prices will respond to upward pressure with a lag; and this is unlikely to occur within the 2013–17 access arrangement period.

* The Victorian wholesale gas market is unlikely to fully respond to developments in the LNG export within the 2013–17 access arrangement period. This market is relatively rigid as it is governed by long term supply and transportation contracts.[[705]](#footnote-705) Terms and conditions of these contracts are binding; meaning that contract prices prevail over the term of the contract.
* The Queensland government 2011 Gas market review predicted that Queensland domestic gas prices would rise to $5 – 8 per gigajoule by 2016, with the high end of this range being likely. This review also predicted that prices would likely rise slightly later in the southern states such as Victoria than in Queensland (emphasis added).[[706]](#footnote-706)
* Governments quarantine some gas for domestic use. Past policies usually include agreements between LNG producers and the government as a precondition for allowing on-shore processing facilities on state land. For example, such a policy was adopted by the WA government in 2006.[[707]](#footnote-707) Under this policy, project proponents are required to reserve up to 15 per cent of LNG production for supply to the domestic market. This was to ensure that gas is available for WA at a competitive price.[[708]](#footnote-708) Such policies are designed to temporarily insulate domestic gas prices from the upward pressure due to LNG export developments.

In accordance with r. 97(3)(d) of the NGR the AER has taken into account the fact that no other Victorian gas service provider has proposed to introduce a demand true up factor in the annual tariff variation mechanism.

Under the NGR, the AER can reject a proposed element of the reference tariff variation mechanism if it considers a preferable alternative exists that better promotes the requirements in the NGR and NGL.[[709]](#footnote-709) For the above reasons, the AER considers that the proposed tariff variation formula revised to remove the demand risk factor would constitute a better alternative. Therefore, the AER does not approve the adjustment factor as proposed by SP AusNet. The AER requires SP AusNet to revise the proposed tariff variation mechanism by removing the demand true up component from the adjustment factor as outlined in revision 1.7.

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 2013–2014. 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. SP AusNet 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.

Cost 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.[[710]](#footnote-710)

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.[[711]](#footnote-711)

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.[[712]](#footnote-712) 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.[[713]](#footnote-713)

The AER has had regard to these criteria in assessing SP AusNet'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.

SP AusNet has included a number of new cost pass through events in its access arrangement proposal. These events are largely consistent with recent AER decisions.[[714]](#footnote-714) SP AusNet explains that the new cost pass through events are adopted from either the AER's recent determination for SP AusNet's electricity distribution network, or cost pass through events specified in the National Electricity Rules.[[715]](#footnote-715)

The AER considers that some of the cost pass through events in SP AusNet's current access arrangement do not satisfy the criteria outlined above and are not designed to encourage efficient behaviour. The AER considers that most of SP AusNet's proposed cost pass through events meet the criteria outlined above and are needed to provide SP AusNet with sufficient cover. The AER does not approve two of SP AusNet's proposed cost pass through events and requires the definition of two further cost pass through events to be amended.

Except for the events discussed below, the AER accepts SP AusNet's proposed cost pass through events and definitions. The following discussion only covers 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 r. 97 of the NGR, as well as the national gas objective and NGL revenue and pricing principles.[[716]](#footnote-716)

Where the AER requires the definition of a cost pass through event to be revised, the revised definition is set out in section 11.10 below.

National Energy Customer Framework Event

The AER requires SP AusNet 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, SP AusNet 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.[[717]](#footnote-717) SP AusNet’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 SP AusNet 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 SP AusNet’s proposed step change reflects expenditure that would be incurred by a prudent and efficient service provider. The AER therefore does not accept SP AusNet’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 SP AusNet 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 SP AusNet’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 SP AusNet 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 SP AusNet’s control—the AER considers it appropriate to allow SP AusNet to pass through costs associated with the commencement of NECF in Victoria, without the additional criteria that those costs be material.

The AER requires SP AusNet 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 SP AusNet 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 SP AusNet 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, SP AusNet 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.[[718]](#footnote-718) The AER does not approve SP AusNet’s proposed capital expenditure and considers that the volume of mains replacement proposed by SP AusNet 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 SP AusNet should be afforded sufficient flexibility to respond to changing conditions, including in the market, which may require SP AusNet 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 SP AusNet’s pass through tariff variation mechanism to cover mains replacement. This event will allow SP AusNet 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 SP AusNet’s initial access arrangement proposal. Any costs that SP AusNet 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 SP AusNet 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 SP AusNet to revise its access arrangement proposal to include the following definition of a Mains Replacement Event:

A Mains Replacement Event means an event whereby SP AusNet 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 SP AusNet 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 SP AusNet in its initial access arrangement proposal for that period.

For the purposes of this Mains Replacement Event:

(c) Adjusted Historical Volumes means 365 km, being the average annual volume of mains replacement completed by SP AusNet 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.

Change in Taxes Event

The AER does not accept SP AusNet’s proposed definition of a Change in Taxes Event. The AER requires SP AusNet to amend the definition of a Change in Taxes Event in accordance with Revision 11.10.

SP AusNet proposed the following definition for this event:

Change in Taxes Event means a variation, or withdrawal or introduction of a Relevant Tax, or a change in the way or rate at which a Relevant Tax is calculated, which has a material impact on the costs to the Service Provider of providing the Reference Services or which has a direct and material impact on the revenue received (after payment of Relevant Taxes) by the Service Provider from providing the Reference Services. [[719]](#footnote-719)

This event is carried over from the current access arrangement. However, this event is defined differently to the definition approved by the AER in recent gas pipeline decisions.

For the reasons set out below the AER does not approve SP AusNet's proposed change in taxes event. The AER requires SP AusNet to include a change in taxes event that is consistent with the definition approved by the AER in its recent gas pipeline decisions.

Unlike the definitions recently approved by the AER, SP AusNet's proposed definition refers to a direct and material impact on the revenue received. The AER considers that the impact on revenue is not a relevant consideration for the purposes of this cost pass through event. The purpose of a cost pass through mechanism is to protect service providers from uncontrollable events that impact on the costs to the business. The rationale of a cost pass through mechanism focuses on increased or decreased costs. The impact of an event on revenue is not relevant to the AER's consideration of this.

The AER also considers that the inclusion of a reference to revenue in this definition is inconsistent with the language used in the other proposed definitions and the provisions for a relevant pass through event,[[720]](#footnote-720) all of which are limited to costs.

Financial Failure of a Retailer Event

The AER does not accept SP AusNet’s proposed Financial Failure of a Retailer Event. The AER requires SP AusNet to remove this event from the definition of a Relevant Pass Through Event.

SP AusNet proposed the following definition for this event:

Financial Failure of a Retailer Event means the occurrence of an event whereby a User is subject to an Insolvency Event, and as a consequence the Service Provider does not receive revenue which it was otherwise entitled to for the provision of References Services. [[721]](#footnote-721)

This cost pass through event is carried over from SP AusNet's current access arrangement. The AER does not consider that this event is consistent with the NGO.

In its draft decision on Envestra's proposed South Australian access arrangement, the AER did not approve a proposed event analogous to this event for reasons similar to those stated below.

The AER considers the event is unnecessary and therefore does not satisfy the criteria set out above. The AER considers that SP AusNet is capable of mitigating this risk by agreeing to appropriate prudential requirements with users. SP AusNet has proposed detailed credit support requirements in clause 7.8 of its proposed terms and conditions set out in Part C of its access arrangement proposal. The AER considers that these requirements provide SP AusNet with adequate protection against the risk of a retailer failing.

New Connection Process Event

The AER does not accept SP AusNet’s proposed New Connection Process Event. The AER requires SP AusNet to remove this event from the definition of a Relevant Pass Through Event.

SP AusNet proposed the following definition for this event:

New Connection Process Event means a change in the retail Gas Market Rules requiring the Service Provider to be directly responsible for the Connection process.

This event is carried over from SP AusNet's current access arrangement.

The AER considers that a change in the retail Gas Market Rules would amount to a change in the regulatory framework and be covered by the definition of a regulatory change event, which is a new event in this access arrangement proposal. The AER proposes to approve the new regulatory change event.

Insurance Event

The AER does not accept SP AusNet’s proposed definition of an Insurance Event. The AER requires SP AusNet to amend the definition of an Insurance Event in accordance with Revision 11.10.

SP AusNet proposed the following definition for this event:

An Insurance Event occurs if:

(a) the Service Provider makes a claim on an insurance policy that it holds; and

(b) the Service provider incurs costs beyond the policy limit for the relevant insurance policy; and

(c) the Service Provider must bear the costs that are in excess of the policy limit; and

(d) the event materially increases the costs to the Service Provider of providing Reference Services.

An insurance 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.

SP AusNet's current access arrangement does not include an Insurance Event or any event analogous to the proposed Insurance Event.

The AER requires the definition of an Insurance 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 SP AusNet’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.

SP AusNet's base forecast operating expenditure allowance includes a component for insurance coverage. There is an expectation that SP AusNet will expend that component to obtain an efficient level of insurance coverage, but the AER cannot compel SP AusNet to actually do this.

This raises the risk that SP AusNet might under-insure by obtaining a level of insurance cover lower than that contemplated in the forecast operating expenditure allowance determined in the AER’s access arrangement final decision, and then pass through any costs 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 SP AusNet to amend the definition of an Insurance 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 SP AusNet to amend the definition of an Insurance Event in its access arrangement proposal as follows:

An Insurance Event means an event whereby:

(a) SP AusNet makes a claim on a relevant insurance policy;

(b) SP AusNet incurs costs beyond the relevant policy limit; and

(c) The costs beyond the relevant policy limit materially increase the costs to SP AusNet of providing reference services.

For the purposes of this Insurance Event:

(d) The relevant policy limit is the greater of SP AusNet’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 SP AusNet’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 SP AusNet’s decisions and actions in relation to the pass through event—including whether the event which was the subject of the relevant insurance claim was within SP AusNet’s control—is relevant to the AER’s decision whether or not to approve the Relevant Pass Through Event.

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 SP AusNet's decisions, actions and omissions in relation to the risk of a pass through event, including whether SP AusNet has taken action to mitigate the risk of the pass through event occurring or the magnitude of the costs of the event. This assessment is not limited to those actions that concern the taking out of an appropriate insurance policy to cover particular risks, but also extends to the actions taken by SP AusNet, or not taken, to mitigate the risk of the event which is the subject of the relevant insurance claim and which has resulted in the pass through event application being made. The AER will assess the extent to which this was within SP AusNet's control.

The AER considers that this will incentivise SP AusNet to take mitigating action to reduce the likelihood of the risk of an Insurance Event eventuating and the extent of costs associated with the occurrence of this pass through event.

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.[[722]](#footnote-722) 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

In its Access Arrangement Information SP AusNet proposes a 1 per cent of revenue cost materiality threshold for pass through events.[[723]](#footnote-723) However, this threshold is not specified in SP AusNet's access arrangement proposal. The AER considers that the definition of material for the purposes of cost pass through events should be specified in the access arrangement.

* + 1. Procedure for oversight and approval of tariff variations

The NGR states that a reference tariff variation mechanism must give the AER adequate oversight or powers of approval over variation of the reference tariff.[[724]](#footnote-724)

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) 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 1.9

Annual and Within-Year Variations

SP AusNet proposed to notify the AER in respect of any reference tariff variations at least 35 business days prior to the next calendar year.[[725]](#footnote-725) 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 r. 97(4) of the NGR. This will give the AER 30 business days to approve or reject the proposed variations; 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 arrangement.[[726]](#footnote-726)

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 SP AusNet's access arrangement must be amended as outlined in revision 1.9. This is consistent with the AER's recent decisions on gas access arrangement.[[727]](#footnote-727)

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 SP AusNet be required to provide an independent statement to support the actual gas quantities to allow the AER to verify the quantities used in the tariff variation mechanism, and to ensure it is applied consistently every year.[[728]](#footnote-728) 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 SP AusNet to amend its access arrangement proposal as outlined in revision 1.9.

Based on the above reason the AER does not approve the proposed annual tariff reference variation process for the 2013–17 access arrangement period. SP AusNet is required to amend its proposed reference tariff variation process as outlined in the revisions of this draft decision before it can be approved.

Procedure for a cost pass through variation in reference tariffs

SP AusNet's proposed approach is carried over from its current access arrangement. This approach differs in a number of respects from the process the AER has approved in its recent gas pipeline decisions. 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 SP AusNet 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 SP AusNet 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 SP AusNet 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 Event definition. The AER considers that this is consistent with the NGR and NGO.

* 1. Revisions

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

Revision 11.1: Amend Section 3.1 of the Access arrangement proposal Part B to include an additional ESV adjustment factor in the annual reference tariff variation formula.

Revision 11.2: Amend Section 9 of the access arrangement proposal to include the following statement between section 9 and section 9.1 headings (page 33):

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 Section 9 of the access arrangement proposal as follows:

Delete all the tables in Section 9 and replace them with the following updated tables

* + - * 1. **SP AusNet Haulage Reference Tariffs - Central Zone**

|  |  |  |
| --- | --- | --- |
| Tariff V Residential |  |  |
| Distribution Fixed Tariff Component | $0.0834/day |  |
| **Consumption Range (GJ/day)** | **Peak Period ($/GJ)** | **Off-peak Period ($/GJ)** |
| 0-0.1 | 6.9987 | 5.6084 |
| > 0.1 - 0.2 | 5.1735 | 3.5311 |
| > 0.2 - 1.4 | 1.6224 | 1.6203 |
| > 1.4 | 1.0120 | 0.5571 |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Tariff V Non-residential** |  |  |
| Distribution Fixed Tariff Component | $0.0841/day |  |
| **Consumption Range (GJ/day)** | **Peak Period ($/GJ)** | **Off-peak Period ($/GJ)** |
| 0-0.1 | 6.3133 | 5.9785 |
| > 0.1 - 0.2 | 4.1977 | 4.1915 |
| > 0.2 - 1.4 | 2.2668 | 2.2409 |
| > 1.4 | 0.9111 | 0.8744 |

|  |  |
| --- | --- |
| **Tariff M** |  |
| Annual MHQ (GJ/hr) | **Tariff ($/MHQ)** |
| 0-10 | 1,646.4938 |
| >10 - 50 | 1,192.3887 |
| > 50 | 677.0877 |

|  |  |
| --- | --- |
| **Tariff D** |  |
| Annual MHQ (GJ/hr) | **Tariff ($/MHQ))** |
| 0-10 | 891.2673 |
| >10 - 50 | 608.6908 |
| > 50 | 343.5550 |

* + - * 1. **SP AusNet - Haulage Reference Tariffs - West Zone**

|  |  |  |
| --- | --- | --- |
| Tariff V Residential |  |  |
| Distribution Fixed Tariff Component | $0.0834/day |  |
| **Consumption Range (GJ/day)** | **Peak Period ($/GJ)** | **Off-peak Period ($/GJ)** |
| 0-0.1 | 5.6121 | 3.7644 |
| > 0.1 - 0.2 | 5.1414 | 2.5778 |
| > 0.2 - 1.4 | 2.1340 | 1.5438 |
| > 1.4 | 0.9656 | 0.6843 |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Tariff V Non-residential** |  |  |
| Distribution Fixed Tariff Component | $0.0841/day |  |
| **Consumption Range (GJ/day)** | **Peak Period ($/GJ)** | **Off-peak Period ($/GJ)** |
| 0-0.1 | 4.5233 | 4.2610 |
| > 0.1 - 0.2 | 3.7840 | 3.6278 |
| > 0.2 - 1.4 | 2.0945 | 1.9616 |
| > 1.4 | 0.7572 | 0.7331 |

|  |  |
| --- | --- |
| **Tariff M** |  |
| Annual MHQ (GJ/hr) | **Tariff ($/MHQ)** |
| 0-10 | 1,646.4938 |
| >10 - 50 | 1,192.3887 |
| > 50 | 677.0877 |

|  |  |
| --- | --- |
| **Tariff D** |  |
| Annual MHQ (GJ/hr) | **Tariff ($/MHQ)** |
| 0-10 | 891.2673 |
| >10 - 50 | 608.6908 |
| > 50 | 343.5550 |

* + - * 1. **SP AusNet - Haulage Reference Tariffs - Adjoining Central Zone**

|  |  |  |
| --- | --- | --- |
| Tariff V Residential |  |  |
| Distribution Fixed Tariff Component | $0.0834/day |  |
| **Consumption Range (GJ/day)** | **Peak Period ($/GJ)** | **Off-peak Period ($/GJ)** |
| 0-0.1 | 9.8421 | 8.3734 |
| > 0.1 - 0.2 | 7.8854 | 6.5061 |
| > 0.2 - 1.4 | 5.9980 | 5.0505 |
| > 1.4 | 4.2168 | 3.8587 |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Tariff V Non-residential** |  |  |
| Distribution Fixed Tariff Component | $0.0841/day |  |
| **Consumption Range (GJ/day)** | **Peak Period ($/GJ)** | **Off-peak Period ($/GJ)** |
| 0-0.1 | 9.3445 | 9.0479 |
| > 0.1 - 0.2 | 7.2608 | 6.9563 |
| > 0.2 - 1.4 | 5.6989 | 5.5897 |
| > 1.4 | 4.2277 | 4.1422 |

|  |  |
| --- | --- |
| **Tariff M** |  |
| Annual MHQ (GJ/hr) | **Tariff ($/MHQ)** |
| 0-10 | 1,646.4938 |
| >10 - 50 | 1,192.3887 |
| > 50 | 677.0877 |

|  |  |
| --- | --- |
| **Tariff D** |  |
| Annual MHQ (GJ/hr) | **Tariff ($/MHQ)** |
| 0-10 | 891.2673 |
| >10 - 50 | 608.6908 |
| > 50 | 343.5550 |

* + - * 1. **SP AusNet - Haulage Reference Tariffs - Adjoining West Zone**

|  |  |  |
| --- | --- | --- |
| Tariff V Residential |  |  |
| Distribution Fixed Tariff Component | $0.0834/day |  |
| **Consumption Range (GJ/day)** | **Peak Period ($/GJ)** | **Off-peak Period ($/GJ)** |
| 0-0.1 | 8.8266 | 7.0872 |
| > 0.1 - 0.2 | 8.1931 | 6.5654 |
| > 0.2 - 1.4 | 5.9222 | 5.0316 |
| > 1.4 | 4.0600 | 3.8828 |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Tariff V Non-residential** |  |  |
| Distribution Fixed Tariff Component | $0.0841/day |  |
| **Consumption Range (GJ/day)** | **Peak Period ($/GJ)** | **Off-peak Period ($/GJ)** |
| 0-0.1 | 7.7361 | 7.4366 |
| > 0.1 - 0.2 | 7.2481 | 6.8958 |
| > 0.2 - 1.4 | 5.8371 | 5.7333 |
| > 1.4 | 4.2789 | 4.1839 |

|  |  |
| --- | --- |
| **Tariff M** |  |
| Annual MHQ (GJ/hr) | **Tariff ($/MHQ)** |
| 0-10 | 1,646.4938 |
| >10 - 50 | 1,192.3887 |
| > 50 | 677.0877 |

|  |  |
| --- | --- |
| **Tariff D** |  |
| Annual MHQ (GJ/hr) | **Tariff ($/MHQ)** |
| 0-10 | 891.2673 |
| >10 - 50 | 608.6908 |
| > 50 | 343.5550 |

Revision 11.4: Amend Section 3 of the access arrangement proposal as follows:

 Delete Yt = 0.05 in the rebalancing control formula (section 3.5, page 17) and replace with and replace it with Yt = 0.02.

 Delete the definition of Xt on pages 10 to 11 and page 17; 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:

Xt =21.41% for the Calender year 2013

Xt =0.00% for the Calender year 2014 to 2017"

Revision 11.5: Amend Section 3 of the access arrangement proposal as follows:

 Delete "pre-tax WACC is 7.25%, being the implied real pre tax WACC applying to the service provider" on page 12 and replace with:

"Pre-tax WACC 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 5.25 per cent"

 Delete "pre-tax WACC is the implied real pre tax WACC applying to the service provider" on page 13 and replace with:

"Pre-tax WACC 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 5.25 per cent"

Revision 11.6: Amend section 3 of the access arrangement proposal as follows:

 Delete the content of section 3.7 and replace with:

When assessing the Service Provider’s proposed tariff, submitted in accordance with this access arrangement, the AER will assess whether the expected revenue from carbon tariffs ( ), is less than or equal to the maximum carbon tariff revenue allowed () as follows:



where:

is the total of the Service Provider’s proposed carbon tariffs multiplied by the corresponding forecast quantities to be distributed for each tariff component of each tariff, in calendar year t

 is the maximum carbon tariff revenue allowed and is expressed below.



where:

 is the maximum carbon tariff revenue the Service Provider is allowed to receive from its carbon tax tariffs from all distribution customers for the calendar year t

 is the aggregate of all charges which the Service Provider forecasts it will be required to pay in carbon tax or in purchasing carbon tax permits in respect of calendar year t, and

 is a correction factor to account for any under or over recovery of actual revenue from carbon tax tariffs in relation to allowed revenue and is expressed as follows:



where:

 is the actual audited total revenue earned by the Service Provider from carbon tax tariffs in respect of all distribution customers in calendar year t–2

is the value calculated for  for calendar year t-2

 is the audited aggregate of all carbon tax charges which were paid by the Service Provider during calendar year t-2

 is the figure used for  when calculating  for calendar 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 , and  on pages 10 to 12 and page 17; and replace with:

 is the proposed haulage reference tariff for haulage reference tariff component j of haulage reference tariff i in calendar year t;

 is the haulage reference tariff being charged for haulage reference tariff component j of haulage reference tariff i in calendar year t-1;

 is the quantity of haulage reference tariff component j of haulage reference tariff i that was sold in calendar year t-2;

Revision 11.8: Amend Section 3 of the access arrangement proposal as follows:

 Delete



and replace with



Delete the definition of  on page 13.

 Delete sub-heading "Demand true–up" and all its content on pages 13 to 15.

Revision 11.9: Amend section 4 of the access arrangement proposal as follows:

 Delete section 4.1(a) and replace with the following:

The Service Provider will, at least 50 Business Days prior to the commencement of the next Calendar Year submit proposed Haulage Reference Tariffs to apply from the start of the next Calendar Year for verification of compliance by the Regulator, in accordance with clauses 4.2(a), (b), (c) and (d).

 Delete section 4.2(b) and replace with the following:

The proposed Haulage Reference Tariffs will be deemed to have been verified as compliant in writing by the Regulator by the end of 30 50 Business Days from the date on which the Regulator received the Service Provider’s notification under clauses 4.1(a), (b) or (c) unless the Regulator has notified the Service Provider in writing that it has declined to verify the proposed Haulage Reference Tariffs as compliant.

 Delete section 4.3 and replace with the following:

At the same time as submitting proposed Haulage Reference Tariffs to the Regulator, the Service Provider will also provide to the Regulator information demonstrating that the proposed Haulage Reference Tariffs are, to the extent relevant, consistent with the Tariff Control Formula and rebalancing control formulae in clause 3.

In respect of the annual variations of reference tariffs, the Service Provider 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.

In respect of the carbon tax tariff, the Service Provider will include 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.

 Delete the first paragraph of section 4.4 and replace with the following:

If the Service Provider does not, at least 50 Business Days prior to the commencement of the next Calendar Year t submit proposed Haulage Reference Tariffs to apply from the start of the next Calendar Year t in accordance with clause 4.1(a) then:

In making these amendments also 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 11.10: Amend the Glossary in Schedule 2 of Part A of the access arrangement proposal as follows:

Delete the definition of Financial Failure of a Retailer event.

Delete the definition of New Connection Process event.

Delete the definition of Change In Taxes Event and replace it by inserting the following:

A Change in Taxes Event means an event where:

(a) any of the following occurs during the course of the access arrangement period:

(i) a change in a relevant tax, in the application or official interpretation

(ii) of a relevant tax, in the rate of a relevant tax, or in the way a relevant tax is calculated;

(iii) the removal of a relevant tax;

(iv) the imposition of a relevant tax; and

(b) in consequence, the costs to SP AusNet of providing reference services are materially increased or decreased.

A relevant tax is any tax payable by SP AusNet, other than:

(a) income tax and capital gains tax;

(b) stamp duty, financial institutions duty and bank accounts debits tax;

(c) penalties, charges, fees and interest on late payments, or deficiencies in

(d) payments, relating to any tax; or

(e) any tax that replaces or is the equivalent of or similar to any of the taxes referred to in paragraphs (a) to (b) (including any State equivalent tax).

Delete the definition of Insurance event and replace it with the following:

An Insurance Event means an event whereby:

(a) SP AusNet makes a claim on a relevant insurance policy;

(b) SP AusNet incurs costs beyond the relevant policy limit; and

(c) The costs beyond the relevant policy limit materially increase the costs to SP AusNet of providing reference services.

For the purposes of this Insurance Event:

(d) The relevant policy limit is the greater of SP AusNet’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 SP AusNet’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.

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 SP AusNet 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.

Insert the following definition of a Mains Replacement Event:

A Mains Replacement Event means an event whereby SP AusNet 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 SP AusNet 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 SP AusNet in its initial access arrangement proposal for that period.

For the purposes of this Mains Replacement Event:

(c) Adjusted Historical Volumes means 365 km being the average annual volume of mains replacement completed by SP AusNet 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:

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.

Amend the definition of a Relevant Pass Through Event as follows:

Delete the Financial Failure of a Retailer Event;

Delete the New Connection Process Event;

Insert a National Energy Customer Framework Event; and

Insert a Mains Replacement Event.

Revision 11.11: Amend section 8 of Part B of the access arrangement proposal as follows:

Delete section 8 and replace it with the following:

Procedure for a Relevant Pass Through Event Variation in Reference Tariffs

SP AusNet will notify the AER of Relevant 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, SP AusNet will provide the AER with a statement, signed by an authorised officer of SP AusNet, 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 SP AusNet 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 SP AusNet, obtain expert advice or consult about the notification.

However, if the AER determines the difficulty of assessing or quantifying the effect of the Relevant Pass Through Event requires further consideration, the AER may require an extension of a specified duration. The AER will notify SP AusNet of the extension, and its duration, within 90 business days of receiving a notification from SP AusNet.

Subject to the approval of the AER under the NGR, Reference Tariffs may be varied after one or more Relevant Pass Through Event/s occurs, in which each individual event materially increases or materially decreases the cost of providing the reference services. Any such variation will take effect from the next 1 January. In making its decision on whether to approve the proposed Relevant Pass Through Event variation, the AER must take into account the following:

(a) the costs to be passed through are for the delivery of pipeline services

(b) the costs are incremental to costs already allowed for in reference tariffs

(c) the total costs to be passed through are building block components of total revenue

(d) the costs to be passed through meet the relevant National Gas Rules criteria for determining the building block for total revenue in determining reference services

(e) the efficiency of SP AusNet’s decisions and actions in relation to the risk of the Relevant Pass Through Event occurring, including whether SP AusNet 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 SP AusNet has taken or omitted to take any action where such action or omission has increased the magnitude of the costs; and

(f) any other factors the AER considers relevant and consistent with the NGR and NGL.

1. Non-tariff components

SP AusNet’s access arrangement proposal sets out terms and conditions that are not directly related to the nature or level of tariffs paid by users. However, these are important to the relationship between SP AusNet and 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.

The AER's consideration of each of the non-tariff components of SP AusNet's proposed access arrangement is set out below.

* 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.

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. 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 SP AusNet's proposed terms and conditions and requires a number of amendments to be made.

* + 1. Access arrangement proposal

SP AusNet’s terms and conditions are set out in Part C of its proposed access arrangement.

The changes made to SP AusNet's terms and conditions are predominantly driven by three factors:[[729]](#footnote-729)

* the introduction of the National Energy Customer Framework (NECF), anticipated to be implemented in part in July 2012 and in total on or before 1 January 2013
* ensuring consistency across current regulatory arrangements
* minor improvements and refinements made to incorporate changes in the market or the law.
  + 1. Assessment approach

Non-tariff components must be consistent with the NGO.[[730]](#footnote-730) But, otherwise, the AER has full discretion in dealing with them.[[731]](#footnote-731) The AER has considered whether each term of SP AusNet's access arrangement proposal is consistent with the NGO.[[732]](#footnote-732) The AER considers that assessing consistency with the NGO requires the AER to assess and balance the competing interests of the Service Provider, 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 Users' costs, which retailers would pass on to end consumers. A similar logic applies to terms and conditions that unduly favour Users. If the gas pipeline service providers face an inefficient level of risk, they are likely to pass additional costs on to the 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.[[733]](#footnote-733) 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 SP AusNet and a 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 SP AusNet has proposed are necessary for there to be a clear, effective and legally certain agreement between SP AusNet and a 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 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.

* + 1. Reasons for decision

The following discussion focuses on the terms and conditions that the AER has concerns with and requires to be amended. Annexure 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.

NECF

The AER accepts the approach taken by SP AusNet to draft its proposed terms and conditions to cater for any delay in the implementation of NECF in Victoria.

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 Users and Service Providers (retail support obligations).[[734]](#footnote-734) As discussed above, the Victorian Government has deferred the adoption and implementation of NECF and these parts are not yet operative in Victoria.

The AER agrees with the approach taken by SP AusNet to draft its proposed terms and conditions to cater for any delay in the implementation of NECF in Victoria. The AER notes that this approach is consistent with the submissions made by Origin[[735]](#footnote-735) and APG,[[736]](#footnote-736) which support a transition to NECF once it is implemented in Victoria. The AER considers the terms and conditions that will be subject to NECF are drafted to continue to work largely unchanged for as long as the current regulatory environment continues, and to work without further amendment if and when NECF is implemented in Victoria. The AER notes that certain provisions in the access arrangement terms and conditions will automatically cease to apply and will be replaced by the relevant NECF requirements once NECF is implemented in Victoria.

In its submissions, AGL suggested that to avoid confusion over which NECF provisions are incorporated in the access arrangements, all access arrangements should incorporate NECF (with the exception of the Credit Support Regime) as if it was already in force in Victoria.[[737]](#footnote-737)

The AER considers it inappropriate to require SP AusNet to implement NECF as though it had been adopted in Victoria. The Victorian government has made a decision to delay its adoption. To require SP AusNet to implement 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 its decision.

Application of Terms and Conditions

The AER does not accept clause 5.3.1 of Part A of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 5.3.1 in accordance with Revision 12.1.

SP AusNet has proposed substantial amendments to clause 5.3.1 of Part A, which now provides that the terms and conditions, as set out in Part C of the access arrangement, only apply to a User who is a retailer. It further states that where an end user requests Reference Services from the Service Provider, then the Service Provider will negotiate with the end user other terms and conditions upon which the Service Provider will provide services to that end user, with the terms and conditions forming the starting point for any such negotiation.

The AER considers that the terms and conditions should not be limited in their application to only those Users who are retailers, but that they should apply to all Users who request reference services from the Service Provider. Rule 48(1) of the NGR requires a full access arrangement to specify for each reference service the other terms and conditions on which the reference service will be provided. Clause 5.3 is therefore inconsistent with r. 48(1) of the NGR as it would operate to limit the application of the access arrangement terms and conditions to only those reference services that are provided to retailers, and exclude their application where a reference service is provided to an end user.

While the AER recognises that the terms and conditions are largely tailored towards a User who is a retailer, the AER considers that s. 322 of the NGL operates to allow SP AusNet to negotiate terms that are appropriate to an end user, and that reflect issues and risks specific to the direct provision of services to that end user.[[738]](#footnote-738) The terms and conditions in the access arrangement should still form the basis for any such negotiation, and therefore should continue to apply to all Users who request reference services from the Service Provider. The AER considers that this approach provides greater certainty and clarity to Users who are non-retailers, which reduces the level of risk borne by the User. The AER considers that additional risk to the User does not promote efficient investment in and operation of the network, aspects of the NGO.

The AER requires SP AusNet to amend clause 5.3.1 of Part A as follows:

* Delete all text after ‘The Terms and Conditions on which the Service Provider will supply each Reference Service are set out in Part C’.

Entitlement to Refuse Service

The AER accepts clause 4.4(c) of SP AusNet’s terms and conditions, but requires an additional clause be included in accordance with Revision 12.2.

Clause 4.4(c) operates so that SP AusNet is not obliged to provide distribution services if the gas the User seeks to inject does not meet the Specifications or contains material properties that may be deleterious. If such gas is injected, whether by a User or another person, SP AusNet may curtail or interrupt provision of distribution services.

The AER considers that a Service Provider has no control over the gas injected into its distribution system. Therefore, it cannot take steps to mitigate the risk of gas injected into the system that does not meet the Specifications or contains material or properties that may be deleterious. Accordingly, the AER considers the contractual term proposed by SP AusNet permitting it to take steps to protect the integrity of the Network is consistent with the NGO.

The AER considers that the addition of such an obligation is consistent with the NGO as it may increase the User’s opportunity to mitigate this risk, leading to reduced costs. If a User is informed by the Service Provider that gas is being injected on its behalf that does not meet the Specifications, the User may be able to mitigate the risk by rectifying this directly with the upstream producer.

Finally, where SP AusNet takes steps such as flaring or releasing gas that has been injected on behalf of a User, this may impact on the User’s ability to meet its obligations to its customers. The AER therefore considers that it is reasonable to require SP AusNet to inform the User when it takes these actions and that this is consistent with the NGO.

The AER’s decision takes into account AGL’s submission, which suggested that an obligation be placed on SP AusNet to notify the User as soon as reasonably practicable if SP AusNet becomes aware that gas that does not meet the Specifications may be delivered to a delivery point.[[739]](#footnote-739)

Further submissions on this clause and the AER’s view of the arguments put forward are set out in Annexure D.

The AER requires SP AusNet to insert the following after clause 4.4(c):

* The Service Provider will notify the User as soon as reasonably practicable if the Service Provider becomes aware that the Gas of the type referred to in 4.4(c) is being injected.

The User’s Obligations/Capacity Management

The AER does not accept clause 4.7(c) of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 4.7(c) in accordance with Revision 12.3.

Clause 4.7(c) of SP AusNet's current access arrangement contains an obligation on the User to ensure that gas injected into the Distribution System complies with the Specifications. SP AusNet has proposed that, in addition to the requirement to comply with the Specifications, the User must ensure that gas injected into the Distribution System does not contain any material or have any properties deleterious to the Distribution System.

Based on the information available to the AER, it considers that requiring a User to ensure that gas does not contain any material or properties deleterious to the Distribution System is not in accordance with accepted good industry practice. The AER understands that upstream suppliers will not agree to obligations over the Specifications. The AER considers that ambiguous requirements above accepted standards will be difficult to implement. This ambiguity creates additional risk to the User, which does not promote efficient investment in and operation of the Network, aspects of the NGO.

Further, the AER considers that an obligation to ensure that gas complies with the Specifications provides SP AusNet with adequate protection, as gas that contains any material likely to be deleterious to the Network is unlikely to comply with the Specifications.

The AER’s decision takes into account AGL’s submission, which stated that it has no knowledge of what beyond the Specifications is appropriate (i.e. what ‘material or properties’ may be ’deleterious to the Distribution System’) and has no control over this as upstream producers/pipeliners will not agree to obligations over the standard Specifications.[[740]](#footnote-740)

Further, the AER considers that the User should only be required to ensure that gas injected into the Distribution System on its behalf complies with the Specifications. The AER does not consider that a User should bear the risk of other Users causing gas to be injected into the Distribution System that does not comply with the Specifications, as this is a risk which the User cannot avoid or mitigate. The AER considers that limiting the scope of the requirement in clause 4.7(c) to the extent that the User can avoid or mitigate the identified risk, is consistent with the NGO, as it provides greater certainty to Users. This promotes the efficient operation of natural gas services, an aspect of the NGO.

The AER considers that its decision is supported in principle by APG's submission, which stated that Retailers can only be held responsible for actions that may be within their reasonable control to undertake. The AER considers that Users have sufficient control over the quality of gas which is injected into the distribution system on its behalf, to the extent that it complies with the Specifications, through its contractual arrangement with upstream producers. The AER therefore considers that its proposed amendment addresses APG's concern. The AER requires SP AusNet to amend clause 4.7(c) as follows:

* Delete ‘...and does not contain any material or have any properties deleterious to the Distribution System or to the operation of the Distribution System’.
* Insert 'on its behalf' after the words 'ensure that Gas injected into the Distribution System'.

Disconnection and Curtailment

The AER does not accept clause 6.1(b) of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 6.1(b) in accordance with Revision 12.4.

Clause 6.1(b) provides that order will be determined ‘in such a manner as it (SP AusNet) considers appropriate having regard to the relevant circumstances known to the Service Provider’. This consideration of what SP AusNet considers appropriate is subjective.

The AER considers that where the terms and conditions provide a party with a discretion, there should be a limitation on the extent of the discretion. This is particularly the case where the discretion is on the part of the Service Provider and there is no indication as to how that discretion might be exercised.

An unfettered discretion allows 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 allows an element of arbitrariness into the Agreement and creates uncertainty. This arbitrariness and uncertainty create additional risk to the 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 SP AusNet should not have an unfettered discretion as to the order of curtailment, interruption and disconnection and at a minimum, it should be required to act reasonably.[[741]](#footnote-741)

The AER requires SP AusNet to amend clause 6.1(b) as follows:

* Insert ‘, acting reasonably,’ before ‘determine’.

Payment and Invoicing for Services – Charges

The AER does not accept clause 7.1(b) of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 7.1(b) in accordance with Revision 12.5.

Clause 7.1(b) provides that a User does not have to pay the charge where the Customer has agreed to pay directly to the Service Provider provided that this clause ceases to apply if the customer ceases to be obliged to pay. The second part of clause 7.1(b) essentially means that the first part does not apply if the conditions in the second are met.

The AER notes that the second part of clause 7.1(b) (i.e. from ‘provided that’ onwards) is unclear and that there is potential uncertainty in the entire clause.

Clause 7.1(b) also reflects the possibility that that under Rule 504 of the NGR, a customer may contract directly with the distributor for services.[[742]](#footnote-742) However, r. 504 of the NGR forms part of NECF and has not yet been adopted in Victoria.

The second part of clause 7.1(b) goes beyond what is provided for in r. 504 of the NGR. The AER considers that where SP AusNet has chosen to adopt clauses from proposed regulations, it is not consistent with the NGO for it to expand that clause beyond what is contained in the regulation. Particularly where it may potentially inconsistent with r. 504(3) of the NGR once NECF is adopted in Victoria.

AGL suggested that a reworded clause 7.1(b) be inserted. The suggested clause replaces the word ‘contract’ with ‘an arrangement’ and adds that clause 3(b) would apply in circumstances where clause 7.1(b) ceases to apply.[[743]](#footnote-743)

For the reasons outlined in Annexure D the AER has chosen not to amend clause 3(b) as suggested by AGL and therefore the suggested reference in clause 7.1(b) to clause 3(b) may not have the same effect that AGL envisaged.

The AER requires SP AusNet to amend clause 7.1(b) as follows:

* Delete ‘...provided that this clause (b) ceases to apply to a type of Charge and a Customer if due to termination, expiry, rescission or amendment of the contract between the Customer and the Service Provider the Customer ceases to be obliged to pay that type of Charge directly to the Service Provider.’

Distribution Services – Invoicing, Payment and Interest

The AER does not accept clause 7.4(g) of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 7.4(g) in accordance with Revision 12.6.

Clause 7.4(g) deals with situations where Metering Data is not available for a Customer. In certain situations, a Service Provider may either issue an invoice based upon an Estimated Meter Reading or include the charges for that Customer for the unavailable period in a subsequent invoice.

Clause 7.4(g) allows the Service Provider to issue charges in a later invoice if the metering data for the relevant period is unavailable at the time of invoicing. However, the clause does not state when the new invoice will be issued, merely that it will occur after the data has become available.

The AER is concerned that the current drafting of this clause does not specify a limitation on how subsequent the subsequent invoice can be. This could potentially allow a payment to be included many months in arrears, rendering reconciliation by the User difficult.

The AER considers that the charges should be invoiced no later than the second invoice after the data becomes available. This will allow the User to recover the costs of the service from the Customer while providing the Service Provider with greater certainty. The AER considers this outcome to be consistent with the NGO because it promotes the efficient operation and use of SP AusNet's gas services, aspects of the NGO.

The AER’s decision takes into account Origin’s suggestion that clause 7.4(g) be amended so that the charges are invoiced no later than the second invoice after the data becomes available.[[744]](#footnote-744)

Further submissions on this clause and the AER’s view of the arguments put forward are set out in Annexure D.

The AER requires SP AusNet to amend clause 7.4(g) as follows:

* Insert the following after “...becomes available”: "but no later than the second invoice after the Metering Data becomes available."

Guaranteed Service Level Payments

The AER does not accept the deletion of clause 7.6(d) of SP AusNet’s terms and conditions. The AER requires SP AusNet to reinsert clause 7.6(d) in accordance with Revision 12.6.

Clause 7.6(d) was deleted on the basis that it is not required under the National Energy Retail Rules,[[745]](#footnote-745) and it is generally unnecessary that this notification be made by a distributor to a retail business.[[746]](#footnote-746)

The AER considers that, in view of the delay to the adoption of NECF in Victoria, clause 7.6(d) should be reinstated. The AER is concerned that if there was no obligation on a Service Provider to notify a User when it makes a Guaranteed Service Level payment, there would be a risk of double payments being made to Users. The AER considers this outcome to be consistent with the NGO because it promotes the efficient operation of natural gas services, an aspect of the NGO.

The AER’s decision takes into account APG[[747]](#footnote-747) and AGL’s[[748]](#footnote-748) submissions which both suggest the reinsertion of clause 7.6(d).

The AER requires SP AusNet to amend clause 7.6(d) as follows:

* Reinsert clause 7.6(d), which states: The Service Provider must notify the User where it makes a Guaranteed Service Level payment directly to a Customer under the Regulatory Instruments.

Provision of information concerning Class A Inquiries, Class B Inquiries and Class C Inquiries

The AER does not accept clause 9.2(c) or clause 9.2(d) of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 9.2(c) in accordance with Revision 12.8, and clause 9.2(d) in accordance with Revision 12.9.

Clause 9.2 describes the obligation of Service Providers and Users concerning the provision of information on Class A, Class B and Class C inquiries, and other inquiries relating to the Distribution System. Clause 9.2(c) states that information to be provided by the Service Provider under clause 9.2(a) may be provided by being published on a website maintained by or on behalf of the Service Provider. Clause 9.2(d) provides that the User indemnifies the Service Provider against any liability to a Customer arising as a result of the User providing information to the Customer other than the information made available by the Service Provider under relevant Regulatory Instruments, or not providing information to the Customer as required under clause 9.1(h). Clause 9.2(d) is subject to the qualification that nothing in that clause renders the User liable for providing information as required under a relevant Regulatory Instrument.

Provision of information on a website

The AER considers that where a Service Provider is required to make information available to a User under clause 9.2(a), and the Service Provider elects to do so by publishing the information on its website in accordance with clause 9.2(c), then the Service Provider should be required to notify the User of any change to its website relating to the provision of such information. The AER considers that this requirement is necessary to ensure that the User is made aware of and is able to access information that a Service Provider is required to provide to it under cl 9.2(a) and the Regulatory Instruments referred to in that clause.

The AER considers that clause 9.2(c) would otherwise be inconsistent with the NGO, as it may result in a situation where a User is not made aware of information that must be made available to it under clause 9.2(a), or is not able to access the information in a timely manner. It would also be inconsistent with the intent behind clause 9.2(a) and the regulatory instruments referred to in that clause, which seek to ensure that information regarding Class A, Class B and Class C Inquiries, and other inquires relating to the Distribution System, is made available to Users, who can in turn make the information available to customers.

The AER’s decision takes into account APG’s submission, which stated that clause 9.2(c) should include provision for the reasonable notification by the Service Provider to Users of changes to its website, as these may be related to emergencies and may require prompt action by retailers to protect consumer interests.[[749]](#footnote-749)

The AER requires SP AusNet to amend clause 9.2(c) as follows:

* Where the Service Provider publishes information on a website maintained by or on behalf of the Service Provider under clause 9.2(c), the Service Provider must notify the User of that website’s URL.

User indemnity

The AER considers that clause 9.2(d) should include an additional qualification that nothing in the indemnity makes the User liable for disclosure of information where the Service Provider has consented to its disclosure. The AER considers that the inclusion of this carve out would clarify under what circumstances a User can disclose certain information to a customer where it is not expressly required under a relevant Regulatory Instrument. This is consistent with the NGO as it clarifies the parties obligations and ensures that Users are able to provide information to Customers where agreed to by the Service Provider, which in turn promotes the efficient operation of natural gas services.

The AER’s decision takes into account SP AusNet's submission, which proposed the inclusion of the additional qualification as an alternative means of addressing Origin’s concerns about clause 9.2(d).[[750]](#footnote-750) In its submission, Origin stated that the words ‘as required under a relevant Regulatory Instrument’ should be removed from clause 9.2(d), on the basis that the User may legitimately require information from the Service Provider even where this is not prescribed under the relevant regulatory instruments.[[751]](#footnote-751)

The effect of Origin’s proposed amendment is that clause 9.2(d) would be qualified by the statement that ‘nothing in this clause 9.2(d) renders the User liable for providing information’. The AER does not agree with this amendment as it would operate to negate the indemnity in clause 9.2(d)(1) relating to the provision of information to a Customer by a User. While the AER recognises that a User may legitimately require information from the Service Provider, even where it is not prescribed under a relevant regulatory instrument, the AER notes that this sub-clause relates to the provision of information by a User to a customer, and therefore Origin’s proposed amendment is not necessary to address this particular concern.

Further submissions on this clause and the AER’s view of the arguments put forward are set out in Annexure D.

The AER requires SP AusNet to amend clause 9.2(c) as follows:

* Insert the following after ‘nothing in this clause 9.2(d) renders the User liable for providing information as required under a relevant Regulatory Instrument’: "or where agreed to in writing by the Service Provider."

New distribution supply points

The AER does not accept clause 9.5(k) of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 9.5(k) in accordance with Revision 12.10.

Clause 9.5 outlines what information must be provided by a User to the Service Provider for each new Distribution Supply Point which the User wishes to be Connected.

The AER considers that clause 9.5(k) should be amended to be consistent with the Victorian Gas Interface Protocol (GIP), which provides that the certificate of compliance number is required for Type A meter fixes and the start Work Notice Number is required for Type B meter fixes. The AER considers that this approach is consistent with the NGO as it clarifies the parties’ obligations and ensures that the terms and conditions reflect current regulatory arrangements in Victoria.

The AER’s decision takes into account SP AusNet’s submission, which stated that it was amenable to amending clause 9.5(k) to be consistent with the GIP.[[752]](#footnote-752) This was in response to AGL’s submission which stated that it is current practice to only provide a start work notice number where there is no certificate of compliance.[[753]](#footnote-753)

The AER requires SP AusNet to replace cl 9.5(k) with the following:

* where a Certificate of Compliance reference number is not required, a Start Work Notice number.

Assignment of and changes in reference tariffs

The AER does not accept clause 9.10 of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 9.10 in accordance with Revision 12.11.

Clause 9.10 describes the obligations of the Service Provider to notify a User, and the obligations of the User to notify affected Customers, of changes in Reference Tariffs.

The AER considers that the Service Provider should be required to advise the User of changes to Reference Tariffs within two business days of the Regulator advising the Service Provider that the changes have been verified as compliant. The AER considers that this requirement will ensure that the User is notified in a timely manner of changes to Reference Tariffs and, where the User is a retailer, is able to prepare new retail prices and satisfy its own notification requirements to customers. The AER considers that this is consistent with the NGO as it promotes the efficient operation and use of natural gas services.

The AER’s decision takes into account SP AusNet’s submission in response to AGL’s concerns about clause 9.10(b). SP AusNet stated that it was prepared to include provision in the terms and conditions that mirror the notification requirements in the current electricity Use of System Agreements i.e. an obligation to notify Users within two business days.[[754]](#footnote-754)

AGL submitted that where the Regulator advises the Service Provider that changes to Reference Tariffs have been verified as compliant, the Service Provider should notify the User immediately.[[755]](#footnote-755) While the AER considers that the Service Provider should be required to advise the User of changes to Reference Tariffs in a timely manner, the AER does not agree with AGL’s proposed insertion of the word ‘immediately’. The AER considers that requiring the Service Provider to advise a User of a variation to reference tariffs immediately following notification by the Regulator would impose a very high standard on the Service Provider. The AER considers a preferable alternative that will allow the Service Provider sufficient flexibility to account for extenuating circumstances and provide greater clarity to the parties is to prescribe an appropriate timeframe within which the Service Provider must notify the User of changes in Reference Tariffs.

The AER requires SP AusNet to replace clause 9.10(b) with the following:

* Where the Regulator advises the Service Provider that changes to Reference Tariffs have been verified as compliant by the Regulator, the Service Provider must notify the User within two business days of any changes that will occur to Reference Tariffs in accordance with the Reference Tariff Policy.

Force Majeure Notice

The AER does not accept clause 10.3(b) of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 10.3(b) in accordance with Revision 12.12.

The AER considers that where a r. 100[[756]](#footnote-756) notice (unplanned interruption) is intended to act as a force majeure notice, this should be made clear by the Service Provider. The AER also considers that such a notice should contain the same details as a force majeure notice. A force majeure event has consequences for the parties’ obligations and it is important that a party receiving a force majeure notice is aware that it is such a notice. Accordingly, the AER considers that a party issuing a force majeure notice should make clear that it is such a notice.

The AER considers that the approach of requiring a r. 100 notice, that is also intended to operate as a force majeure notice, to state that it is also a force majeure notice will avoid any potential uncertainty. This uncertainty creates unnecessary risk to the User, which is a cost. This does not promote an efficiently operating system, an aspect of the NGO.

The AER requires SP AusNet to amend clause 10.3(b) as follows:

* Insert the following after “...the Service Provider will issue a notice which complies with the requirements of the relevant regulatory instrument”: "specifying that it is also a force majeure notice and containing full particulars of the force majeure event."

Consultation prior to Disconnection

The AER does not accept clause 11.2(c) of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 11.2(c) in accordance with Revision 12.13.

Clause 11.2 sets out the obligations of the Service Provider and the User to consult prior to the Service Provider disconnecting a customer. Clause 11.2(c) states that the Service Provider may take action to disconnect a customer without notifying or consulting with the User, where the disconnection is due to an Emergency, is undertaken due to a direction or order of an Authority or where relevant Regulatory Instruments require or allow the Disconnection.

The AER considers that the words ‘without notifying the User’ should be inserted at the end of clause 11.2(c) to clarify that the Service Provider can only rely on Regulatory Instruments that require or allow the disconnection without notification. The AER does not consider that the Service Provider should be permitted to disconnect a customer without notifying or consulting with the User in every situation where the disconnection is allowed or required under a relevant Regulatory Instrument. This would be inconsistent with the overall intent behind the notification and consultation provisions in clause 11.2. The AER considers that the Service Provider should only be permitted to disconnect a customer without first consulting with a User in certain exceptional circumstances, or where expressly permitted to do so under a Regulatory Instrument.

The AER considers that the proposed amendment to clause 11.2(c) ensures that in most circumstances the Service Provider will notify a User prior to disconnecting a customer, and follow the consultation process set out in clause 11.2(a) and (b). This also allows the Service Provider and the User to agree on the procedure to be followed in effecting the Disconnection and the charges to be incurred by the User. The AER considers that a requirement to notify the User of a disconnection, except in limited circumstances, promotes the efficient operation and use of natural gas services, an aspect of the NGO.

The AER’s decision takes into account APG’s submission, which proposed the same amendment to clause 11.2(c).[[757]](#footnote-757) It is also supported by SP AusNet’s submission in response to APG’s proposed amendment.[[758]](#footnote-758)

The AER requires SP AusNet to amend clause 11.2(c) as follows:

* Insert the following words at the end of clause 11.2(c): "without notifying the User."

Indemnity by the User

The AER does not accept clause 13.5(c) of SP AusNet’s terms and conditions. The AER requires SP AusNet to delete clause 13.5(c) as set out in Revision 12.14.

Clause 13.5 describes the circumstances under which the User indemnifies the Service Provider. Clause 13.5(c) states that the User indemnifies the Service Provider against any revenue which, by virtue of clause 508(1) of the National Gas Rules, the Service Provider is unable to collect because of the act or omission of the User.

The AER does not agree with the inclusion of clause 13.5(c) in SP AusNet’s proposed terms and conditions. Rule 508(1) of the NGR provides that if a retailer is not permitted to recover distribution service charges from a shared customer under the National Energy Retail Law (NERL) or the National Energy Retail Rules (NERR), then neither is the distributor permitted to recover those charges from the retailer. Rule 508(1) will be introduced into the NGR with the commencement of NECF and therefore will not apply until NECF is implemented in Victoria. The AER considers that clause 13.5(c) would allow SP AusNet to circumvent the operation of r. 508(1) in anticipation of the commencement of NECF, by requiring the User to indemnify the Service Provider for any revenue which it cannot recover by virtue of r. 508(1), where it is due to the User’s act or omission.

The AER considers that to ensure consistency with the NGO, the terms and conditions of an access arrangement should reflect and support the operation of relevant regulatory instruments. The regulatory framework has been designed to ensure the efficient operation of natural gas services, having regard to the long term interests of consumers, and therefore should not be circumvented via the terms and conditions of an access arrangement.

The AER’s decision takes into account AGL and Origin’s submissions, which proposed deleting clause 13.5(c) on the basis that it seeks to make Users liable for loss of revenue of the Service Provider that it would be prohibited from recovering under r. 508 of the NGR.[[759]](#footnote-759) APG also considered that 13.5(c) should be amended to limit its application to situations where the Service Provider is unable to collect revenue due to the negligent act or omission of the User.[[760]](#footnote-760)

SP AusNet was not amenable to amending clause 13.5(c). SP AusNet did not agree with APG and argued that there may be scenarios where the User is not negligent but where the Service Provider should not be prevented from recovering charges, for example, where the User decides not to invoice a customer.[[761]](#footnote-761) In response to Origin and AGL’s submissions, SP AusNet argued that it would be unfair if a Service Provider is precluded from recovering charges by operation of r. 508 of the NGR, where a User cannot recover charges due to its own act or omissions.[[762]](#footnote-762) SP AusNet stated that the clause is not seeking to abrogate r. 508 of the NGR, but simply to ensure Users both recover legitimate charges from customers and do not seek to use r. 508 as a means to deny Service Providers legitimate charges.

The AER acknowledges SP AusNet’s argument that it would be unfair to preclude a Service Provider from recovering charges where a User cannot recover the charges due to its own act or omission. However, the AER notes that s. 508(1) of the NGR only precludes a distributor from recovering charges where the retailer is not permitted to recover those charges under the NERL or the NERR. Section 508(1) of the NGR does not, therefore, apply to all circumstances where a User is unable to recover distribution service charges from a customer. The AER does not agree with SP AusNet’s submission on the basis that this clause is inconsistent with the NGO, as it seeks to circumvent the operation of s. 508(1) of the NGR in anticipation of the commencement of NECF in Victoria.

The AER requires SP AusNet to delete clause 13.5(c).

Exemption of liability

The AER does not accept clause 13.6(a) of SP AusNet’s terms and conditions. The AER requires SP AusNet to amend clause 13.6(a) in accordance with Revision 12.15.

Clause 13.6 describes the circumstances under which a party will not be liable to the other party. Clause 13.6(a) provides that the Service Provider is not liable to any penalty or damages for failing to convey Gas through the Distribution System if the failure arises out of any accident or cause beyond the Service Provider’s control.

The AER considers that the exemption in clause 13.6(a) should only apply to the extent that the failure to convey Gas through the Distribution System arises out of any accident or cause beyond the Service Provider’s control. Where there are multiple causes for the Service Provider’s failure to convey Gas to a User, or where the Service Provider fails to take action which it could reasonably take to mitigate the risk that it will be unable to convey gas, then the Service Provider should be liable to the extent that the failure was within its control.

The AER also considers that the clause should be amended to clarify that the exemption only applies to an accident that is also beyond the Service Provider’s control. As the clause is currently drafted, there is some ambiguity around whether the ‘accident’ as well as the ‘cause’ must be beyond the Service Provider’s control. The AER does not consider that the Service Provider should be exempt from liability for a failure to convey gas, where the failure is due to an accident which was within the Service Provider’s power to avoid or to mitigate.

In summary, the AER considers that the above amendments to clause 13.6(a) are consistent with the NGO as they operate to ensure that the Service Provider bears the risk of failing to convey gas through the distribution system where it is able to avoid or mitigate that risk. The AER considers that this will incentivise the Service Provider to take active steps to avoid or mitigate this risk, which in turn promotes the efficient operation of natural gas services, an aspect of the NGO.

The AER’s proposed amendment to clause 13.6(a) is supported in part by AGL’s submission, which stated that for the purposes of legal clarity, the exemption in clause 13.6(a) should only apply to the extent that the failure arises out of any accident.[[763]](#footnote-763) SP AusNet also stated that it was amenable to this aspect of the proposed revision to clause 13.6(a).[[764]](#footnote-764)

Further submissions on this clause and the AER’s view of the arguments put forward are set out in Annexure D.

The AER requires SP AusNet to replace clause 13.6(a) with the following:

* The Service Provider is not liable to any penalty or damages for failing to convey Gas through the Distribution System to the extent that the failure arises out of any accident or cause, where that accident or cause is beyond the Service Provider’s control.

Amendment to an Agreement

The AER does not accept clause 19.2(b) or clause 19.2(c) of SP AusNet’s terms and conditions. The AER requires SP AusNet to delete 19.2(b) in accordance with Revision 12.16, and amend clause 19.2(c) in accordance with Revision 12.17.

Clause 19.2(b) provides that it is the intention of the Service Provider and the User that the terms of this Agreement are at all times the same as the Reference Service Terms.

The AER considers that the ability for a Service Provider and User to negotiate the most appropriate agreement for their commercial circumstances is consistent with a competitive market outcome, which can drive efficiencies, an aspect of the NGO. The AER considers that the clause 19.2(b) acts to restrict the ability of the parties to negotiate and limits their commercial flexibility, which may impede competition at the retail level. SP AusNet’s proposed term is therefore not consistent with the NGO.

The AER also notes that s. 322 of the NGL provides that nothing in the NGL is to be taken as preventing a Service Provider from entering into an agreement that is different from an applicable access arrangement that applies to that pipeline service.

The AER requires SP AusNet to delete clause 19.2(b).

The AER considers that clause 19.2(c) has the effect of providing for an automatic variation to the Agreement when there is a change to the Reference Service Terms.

The AER considers that the parties should have the flexibility to consider adopting changes to the Reference Service Terms, but that the automatic adoption of any changes could lead to terms they had agreed to exclude from the Agreement being included by the operation of clause 19.2(c).

The AER considers that it is important to make it clear that any amendment to the Agreement will require the written agreement of both parties.

The AER is concerned that a term providing for the automatic variation of the Agreement has potential to cause uncertainty and confusion. This uncertainty creates additional risk to the User, which does not promote efficient investment in and operation of the network, an aspect of the NGO

AGL submits that clauses 19.2(b)-(d) are superfluous and appear to enable the Service Provider to unilaterally change the terms. AGL proposed that the terms should therefore be deleted.[[765]](#footnote-765)

The AER does not consider that clause 19.2(c) allows SP AusNet to unilaterally vary the Agreement, as submitted by AGL. Rather, the clause provides for an automatic variation to the Agreement when there is a change to the Reference Service Terms. However, the AER considers that this clause should be amended. For the reasons set out above, the AER does not consider that a clause that provides for the automatic variation of the Agreement is consistent with the NGO.

The AER requires SP AusNet to amend clause 19.2(c) as follows:

* Replace 19.2(c) with the following:

If during the course of the Agreement, there are any additions or variations to the Reference Service Terms, the parties may agree in writing to amend the Agreement to adopt any of the new or varied Reference Service Terms.

* 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 user's contracted capacity to another user.[[766]](#footnote-766) 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.[[767]](#footnote-767) Relevantly, 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.[[768]](#footnote-768)

* + 1. AER decision

To ensure that the access arrangement is consistent with the NGR, the AER requires SP AusNet 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 SP AusNet to amend clause 5.7 of its proposed access arrangement in accordance with Revision 12.18.

* + 1. Access arrangement proposal

SP AusNet’s proposal states it does not provide for capacity trading on its distribution system.[[769]](#footnote-769) SP AusNet states that this is in accordance with r. 105(1) of the NGR and the Declared Wholesale Gas Market Rules[[770]](#footnote-770) to which it is subject and which do not provide for capacity trading.

* + 1. Assessment approach

The AER has assessed SP AusNet'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 SP AusNet’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.[[771]](#footnote-771)

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.[[772]](#footnote-772) Under this model, Victorian gas networks (including SP AusNet’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.[[773]](#footnote-773)

Capacity trading is therefore not applicable to SP AusNet’s network.

Despite the practical situation, the NGR require that the access arrangement include capacity trading requirements. The AER considers that SP AusNet's access arrangement may meet this requirement by specifying that there are no applicable capacity trading requirements.

* 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.[[774]](#footnote-774) 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 SP AusNet’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).

Despite this practical situation, 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.[[775]](#footnote-775) 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 (or both) in which all prospective users (whether associates of, or unrelated to, the service provider) are treated on a fair and equal basis.[[776]](#footnote-776)

* + 1. AER decision

The AER accepts SP AusNet’s proposal in so far as it relates to new connections/modifications and does not include queuing requirements in relation to spare capacity. Nevertheless, for the sake of clarity the AER requires that SP Aus Net relabel clause 5.5 of its proposal from ‘Queuing policy’ to ‘New connections and modifications’ since this clause does not relate to a queuing policy in relation to capacity as the current heading would indicate.

* + 1. Access arrangement proposal

SP AusNet’s proposal includes a queuing policy (which is subject to its extensions and expansions policy) for requests for new connections or modifications to existing connections.[[777]](#footnote-777) However, this policy relates to requests for new connections or modifications to connections and does not relate to capacity as described above.

* + 1. Assessment approach

The AER has assessed SP AusNet's queuing requirements against the NGO and rules 48(1)(e) and 103 of the NGR.

* + 1. Reasons for decision

As the capacity of SP AusNet’s distribution pipeline is managed by AEMO under Part 19 of the NGR, queuing arrangements are not applicable. To avoid confusion the heading to clause 5.5 of the proposal should be changed from ‘queuing policy’ to ‘new connections and modifications’

* 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.[[778]](#footnote-778) When the extension or expansion is covered by the access arrangement, the requirements included in the proposal must deal with the effect of the extension or expansion on tariffs.[[779]](#footnote-779)

Extension and expansion requirements must be included in an access arrangement.[[780]](#footnote-780) 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 or outline how may be dealt with at a later time.[[781]](#footnote-781) 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.[[782]](#footnote-782)

* + 1. AER decision

The AER does not accept SP AusNet’s extensions and expansions policy. The AER requires SP AusNet to amend its proposal so that all low and medium pressure pipelines are covered by the access arrangement by default. Whenever SP AusNet builds a high pressure pipeline extension to its distribution network, it must notify the AER and the AER will decide on a case-by-case basis whether the pipeline should be covered by the access arrangement. The AER considers that these changes will promote the efficient investment in and efficient use and operation of gas services, while promoting the long term interest of consumers with respect to price, each an aspect of the NGO.

* + 1. Access arrangement proposal

SP AusNet’s proposal is largely unchanged from the access arrangement 2008–13 in relation to its extension or expansion requirements.

The proposal states that an extension or expansion to the distribution system will be covered by the access arrangement where that extension or expansion is owned by SP AusNet. However, an extension will not be covered by the access arrangement where:

* it is considered by the service provider to be a significant extension (this is defined as an extension which will service a minimum of 5000 customers) and the service provider gives written notice to the AER before the extension comes into service that the extension will not form a part of the access arrangement; or
* where the extension is not a significant extension (services less than 5000 customers), and the AER agrees;

unless the extension was included in the calculation of the reference tariffs.[[783]](#footnote-783)

Clause 5.6.2 of SP AusNet’s access arrangement proposal describes the effect of an extension or expansion on reference tariffs. Clause 5.6.3 describes SP AusNet’s policy for extensions to unreticulated townships where the extension was not included in the calculation of the reference tariffs or the subject of a competitive tender.

* + 1. Assessment approach

The AER has assessed SP AusNet's extension and expansion requirement against the NGO and rules 48(1)(g) and 104 of the NGR.

* + 1. Reasons for decision

The AER does not accept SP AusNet’s proposed extensions and expansions policy.

In particular, the AER does not accept SP AusNet’s proposal that the access arrangement does not apply to incremental reference services provided by a 'significant extension' where SP AusNet has given written notice to the AER that it will not form part of the access arrangement.

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 AER decisions.[[784]](#footnote-784) 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 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 a case by case assessment approach for the coverage of high pressure pipelines has the benefit of promoting the efficient investment in and the efficient operation and use of natural gas services for the long term interests of consumers of natural gas in accordance with the national gas objective.[[785]](#footnote-785) Such an approach provides flexibility to deal with the particular circumstances.

The AER considers that an extension and expansion policy that:

* provides for a requirement that SP AusNet notify the AER where it proposes to build a high pressure extension to its network
* enables the AER to make such a decision with respect to the coverage of the high pressure pipeline

is more consistent with the NGO and is a preferable alternative to SP AusNet’s proposal.

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. Default coverage will provide regulatory efficiency through the avoidance of multiple and frequent applications for small extensions. This is likely to contribute to the promotion of the 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 safety, reliability and security of supply of natural gas.[[786]](#footnote-786) 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 SP AusNet’s proposal that all expansions to its distribution network will be covered by the access arrangement. 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.

Effect of extension / expansion on reference tariffs

The AER proposes to accept SP AusNet’s proposal in relation to the effect of an extension and expansion on reference tariffs. The AER considers that this element of the proposal is consistent with the NGR.

* 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.[[787]](#footnote-787) 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.[[788]](#footnote-788) 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.[[789]](#footnote-789) The access arrangement may specify conditions under which consent will or will not be given to be complied with if consent is given.[[790]](#footnote-790)

* + 1. AER decision

The AER accepts SP AusNet’s proposal in relation to a change of receipt or delivery point.

* + 1. Access arrangement proposal

SP AusNet proposes that any change to a receipt or delivery point on the distribution system will require the consent of the service provider, but that consent will not be withheld unless there are reasonable technical or commercial grounds for withholding consent.[[791]](#footnote-791) However, SP AusNet’s proposal states that as the only receipt points on the distribution system are custody transfer points between the distribution system and other networks, it is unlikely the SP AusNet would consent to a request to change a receipt point.[[792]](#footnote-792) The proposal states that requests for changes to any customer distribution supply point will be considered on a case-by-case basis, subject to technical or commercial feasibility, and will continue to be offered as a service other than a reference service.[[793]](#footnote-793)

* + 1. Assessment approach

The AER has assessed SP AusNet'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, which are aspects of the NGO. Additionally, the NGR states than an 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.[[794]](#footnote-794)

SP AusNet states that ‘consent will always be given on the basis that it is safe to do so, the movement is consistent with technical standards and requirements and that the cost of undertaking the work is reimbursed to SP AusNet by the retailer or the customer.’[[795]](#footnote-795) The AER considers this is consistent with r. 106 of the NGR and proposes to accept SP AusNet’s proposal in relation to a change of receipt or delivery point.

* 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 4 years after the access arrangement took effect or the last revision commencement date; and
* a revision commencement date will fall 5 years after the access arrangement took effect of the last revision commencement date.[[796]](#footnote-796)

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.[[797]](#footnote-797) It may also approve dates that do not conform to the general rule if it is satisfied that the dates are consistent with the national gas objective and the revenue and pricing principles.[[798]](#footnote-798)

* + 1. AER decision

The AER proposes to accept SP AusNet’s proposed revision commencement date but not its review submission date.

The AER requires SP AusNet to amend clauses 5.9.1 of its proposed access arrangement in accordance with Revision 12.21.

* + 1. Access arrangement proposal

SP AusNet proposed a review submission date on or before 30 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.[[799]](#footnote-799)

SP AusNet’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 SP AusNet's review submission and expiry date against the NGO and rules 48(1)(i) and 48(1)(j) of the NGR.

* + 1. AER considerations

The revision commencement date is consistent with the general rule and the AER proposes to accept it. The review submission date of 30 March 2017 proposed by SP AusNet 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.

* 1. Revisions

The AER requires the following revisions to be made to the non-tariff components of SP AusNet's access arrangement:

Revision 12.1: Amend clause 5.3.1 of Part A as follows:

Delete all text after ‘The Terms and Conditions on which the Service Provider will supply each Reference Service are set out in Part C’.

Revision 12.2: Amend clause 4.4 as follows:

Insert the following clause as 4.4(d):

The Service Provider will notify the User as soon as reasonably practicable if the Service Provider becomes aware that the Gas of the type referred to in 4.4(c) is being injected.

Revision 12.3: Amend clause 4.7(c) as follows:

Delete the following:

...and does not contain any material or have any properties deleterious to the Distribution System or to the operation of the Distribution System...

Insert the following after the words 'ensure that Gas injected into the Distribution System':

on its behalfRevision 12.4: Amend clause 6.1(b) as follows:

Insert ‘acting reasonably’ before ‘determine’.

Revision 12.5: Amend clause 7.1(b) as follows:

Delete the following:

...provided that this clause (b) ceases to apply to a type of Charge and a Customer if due to termination, expiry, rescission or amendment of the contract between the Customer and the Service Provider the Customer ceases to be obliged to pay that type of Charge directly to the Service Provider.

Revision 12.6: Amend clause 7.4(g) as follows:

Insert the following after “...becomes available”:

, but no later than the second invoice after the Metering Data becomes available.

Revision 12.7: Amend clause 7.6 as follows:

Reinsert clause 7.6(d), which states:

The Service Provider must notify the User where it makes a Guaranteed Service Level payment directly to a Customer under the Regulatory Instruments.

Revision 12.8: Amend clause 9.2(c) as follows:

Insert the following sub-clause following clause 9.2(c):

Where the Service Provider publishes information on a website maintained by or on behalf of the Service Provider under clause 9.2(c), the Service Provider must notify the User of that website’s URL.

Revision 12.9: Amend clause 9.2(d) as follows:

Insert the following after ‘nothing in this clause 9.2(d) renders the User liable for providing information as required under a relevant Regulatory Instrument’:

or where agreed to in writing by the Service Provider

Revision 12.10: Amend clause 9.4(k) as follows:

Replace clause 9.4(k) with the following:

Where a Certificate of Compliance reference number is not required, a Start Work Notice number.

Revision 12.11: Amend clause 9.10(b) as follows:

Replace clause 9.10(b) with the following:

Where the Regulator advises the Service Provider that changes to Reference Tariffs have been verified as compliant by the Regulator, the Service Provider must notify the User within two business days of any changes that will occur to Reference Tariffs in accordance with the Reference Tariff Policy.

Revision 12.12: Amend clause 10.3(b) as follows

Insert the following after “...the Service Provider will issue a notice which complies with the requirements of the relevant regulatory instrument”:

, specifying that it is also a force majeure notice and containing full particulars of the force majeure event.

Revision 12.13: Amend clause 11.2(c) as follows:

Insert the following word at the end of clause 12.2(c):

without notifying the User.

Revision 12.14: Delete clause 13.5(c).

Revision 12.15: Amend clause 13.6(a) as follows:

Replace clause 13.6(a) with the following:

The Serviced Provider is not liable to any penalty or damages for failing to convey Gas through the Distribution System to the extent that the failure arises out of any accident or cause, where that accident or cause is beyond the Service Provider’s control.

Revision 12.16: Delete clause 19.2 (b).

Revision 12.17: Amend clause 19.2(c) as follows:

Replace clause 19.2(c) with the following:

If during the course of the Agreement, there are any additions or variations to the Reference Service Terms, the parties may agree in writing to amend the Agreement to adopt any of the new or varied Reference Service Terms.

Revision 12.18: Amend clause 5.7 of the proposed access arrangement to include the following:

There are no applicable capacity trading requirements for the purposes of rules 48(1)(f) or 105(1) of the NGR.

Revision 12.19: Relabel clause 5.5 of the proposed access arrangement so that the heading reads ‘New connections and modifications’.

Revision 12.20: Replace clause 5.6.1 of the proposed access arrangement with the following:

5.6.1 Extensions

High pressure extensions

If SP AusNet 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 this Access Arrangement.

A notification given by SP AusNet under this clause 5.6.1 must:

a) be in writing;

b) state whether SP AusNet intends for the proposed high pressure pipeline Extension to be covered by this Access Arrangement;

c) describe the proposed high pressure Extension and describe why the proposed Extension is being undertaken; and

d) be given to the AER before the proposed high pressure pipeline extension comes into service.

SP AusNet is not required to notify the AER under this clause 5.6 to the extent that the cost of the proposed high pressure pipeline Extension has already been included and approved by the AER in the calculation of the Reference Tariffs.

After considering SP AusNet’s application, and undertaking such consultation as the AER considers appropriate, the AER will inform SP AusNet of its decision on SP AusNet’s proposed coverage approach for the high pressure pipeline extension.

The AER’s decision referred to above may be made on such reasonable conditions as determined by the AER as will have the effect stated in the decision.

Other extensions and expansions

Any Extensions to the Distribution System which are not high pressure pipeline Extensions within the meaning of this clause will be covered by this Access Arrangement. Any Expansions in the Distribution System will be covered by this Access Arrangement.

Revision 12.21: Amend clause 5.9.1 of the proposed access arrangement as follows:

5.9.1 SP AusNet will submit revisions to this Access Arrangements to the AER on or before 1 January 2017.

1. NGR, r. 101(1). [↑](#footnote-ref-1)
2. 2 NGR, r. 48(1)(b). [↑](#footnote-ref-2)
3. SP AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.2.1. [↑](#footnote-ref-3)
4. SP AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.2.3. [↑](#footnote-ref-4)
5. NGR, r. 48(1)(c), NGR, r. 101(1). [↑](#footnote-ref-5)
6. NGR, r. 101(2). [↑](#footnote-ref-6)
7. NGL, s. 2. [↑](#footnote-ref-7)
8. NGR, r. 100(a). [↑](#footnote-ref-8)
9. Such as queuing requirements, extension and expansion requirements, and capacity trading requirements. [↑](#footnote-ref-9)
10. NGR, r. 48(1)(b). [↑](#footnote-ref-10)
11. SP AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.2.1, p 5. [↑](#footnote-ref-11)
12. SP AusNet,, Access arrangement information, 30 March 2012, paragraph 13.5, p, 214. [↑](#footnote-ref-12)
13. Envestra, Access arrangement proposal 30 March 2012, clause 2.3: Envestra, Access arrangement proposal: Part A, 30 March 2012, Schedule 1. [↑](#footnote-ref-13)
14. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A; Origin, 2012, Victorian Gas Access Arrangement Review, 28 June 2012, p. 3. [↑](#footnote-ref-14)
15. AGL, 2012 Victorian Gas Access Arrangement Review, 29 June 2012, p. 3. [↑](#footnote-ref-15)
16. AGL, 2012 Victorian Gas Access Arrangement Review, 29 June 2012, Attachment A. [↑](#footnote-ref-16)
17. Origin, 2012, Victorian Gas Access Arrangement Review, 28 June 2012, p. 3. [↑](#footnote-ref-17)
18. SP AusNet, Access arrangement proposal, 30 March 2012, clause 5.2.1. [↑](#footnote-ref-18)
19. SP AusNet Access arrangement proposal, 30 March 2012, clause 5.2.1. [↑](#footnote-ref-19)
20. SP AusNet, Accesss Arrangement Information, pp. 213 & 214. [↑](#footnote-ref-20)
21. NGR, r. 48(1)(c); NGR, r. 101(2); NGL, s. 2. [↑](#footnote-ref-21)
22. AGL, 2012 Victorian Gas Access Arrangement Review, 29 June 2012, Attachment B [↑](#footnote-ref-22)
23. NGR, r. 77(2). [↑](#footnote-ref-23)
24. SP AusNet, 2013–2017 access arrangement review—Access arrangement information, March 2012, p. 165. (SP AusNet, Access arrangement information, March 2012). [↑](#footnote-ref-24)
25. SP AusNet, Access arrangement information, March 2012, p. 166. [↑](#footnote-ref-25)
26. SP AusNet, Access arrangement information, March 2012, p. 166. [↑](#footnote-ref-26)
27. SP AusNet, Access arrangement information, March 2012, p. 167. [↑](#footnote-ref-27)
28. SP AusNet, Access arrangement information, March 2012, p. 167. [↑](#footnote-ref-28)
29. SP AusNet, Access arrangement information, March 2012, p. 166. [↑](#footnote-ref-29)
30. SP AusNet, Access arrangement information, March 2012, p. 166–167. [↑](#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. 77(2). [↑](#footnote-ref-35)
36. NGR, r. 78. [↑](#footnote-ref-36)
37. The AER identified these discrepancies with SP AusNet, who provided a revised RFM to reconcile the values. SP AusNet, Response to AER information request 10 regarding the reconciliation of 2007-2011 proposal capex with SP AusNet’s audited regulatory accounts, 19 June 2012. [↑](#footnote-ref-37)
38. NGR, rr. 77(2) and 79. [↑](#footnote-ref-38)
39. NGR, r. 77(2)(a). [↑](#footnote-ref-39)
40. NGR, r. 77(2)(b). [↑](#footnote-ref-40)
41. The AER's detailed analysis of conforming capex by project and driver is in attachment 3. [↑](#footnote-ref-41)
42. Essential Services Commission, Gas access arrangement review 2008–12, Final decision, March 2008, pp. 431–432. [↑](#footnote-ref-42)
43. NGR, Schedule 5, clause 5(1)(a). [↑](#footnote-ref-43)
44. SP AusNet, Gas access arrangement revision 2008–2012: Part B of the access arrangement for the distribution system—Reference tariffs and reference tariff policy, p. 25. [↑](#footnote-ref-44)
45. Essential Services Commission, Gas access arrangement review 2008–12, Final decision, March 2008, pp. 431–432. [↑](#footnote-ref-45)
46. Essential Services Commission, Gas access arrangement review 2008–12, Final decision, March 2008, pp. 431–432. [↑](#footnote-ref-46)
47. NGR, Schedule 1, clause 5(1)(a). [↑](#footnote-ref-47)
48. NGR, r. 79. [↑](#footnote-ref-48)
49. SP AusNet, Response to AER information request 6 regarding movements in capitalised provisions, 20 June 2012. [↑](#footnote-ref-49)
50. SP AusNet, Response to AER information request 10 the reconciliation of 2007-2011 proposal capex with SP AusNet’s audited regulatory accounts, 19 June 2012. [↑](#footnote-ref-50)
51. SP AusNet, Gas Access Arrangement Revision 2008–12, Part B of the Access Arrangement for the Distribution System—Reference Tariffs and Reference Tariff Policy, p. 26 [↑](#footnote-ref-51)
52. NGR, Schedule 1, clause 5(b). [↑](#footnote-ref-52)
53. AER, Final decision Victorian electricity distribution network service providers Distribution determination   
    2011–2015, October 2010, p. 455. [↑](#footnote-ref-53)
54. Essential Services Commission, Review of gas access arrangements, Final decision, October 2002,   
    p. 425–426. [↑](#footnote-ref-54)
55. Essential Services Commission, Review of gas access arrangements, Final decision, October 2002,   
    p. 425–426. [↑](#footnote-ref-55)
56. 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-56)
57. NGR, r. 77(2)(d). [↑](#footnote-ref-57)
58. Essential Services Commission, Gas access arrangement review 2008–12, Final decision, March 2008,   
    p. 439. [↑](#footnote-ref-58)
59. NGR, r. 77(2). [↑](#footnote-ref-59)
60. SP AusNet, Access arrangement information, March 2012, p. 166–167. [↑](#footnote-ref-60)
61. 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-61)
62. AER, Final access arrangement guideline, March 2009, pp. 65–66. [↑](#footnote-ref-62)
63. AER approved capital expenditure includes AER material and labour escalation adjustments. [↑](#footnote-ref-63)
64. The AER notes that SP AusNet provided a number of updated information sources to the AER during the AER's assessment. The AER has incorporated these information sources into Table 3.5. As such, the numbers presented in this table do not reconcile with the public version of SP AusNet's submission. [↑](#footnote-ref-64)
65. NGR, r. 78. [↑](#footnote-ref-65)
66. NGR, r. 74(2). [↑](#footnote-ref-66)
67. NGR, r. 40(2), r. 79(5). [↑](#footnote-ref-67)
68. For instance, r. 74 of the NGR requires estimates and forecasts to be made on a reasonable basis, amongst

    other things. [↑](#footnote-ref-68)
69. NGL s. 28(1). [↑](#footnote-ref-69)
70. NGR r. 77(2)(a). [↑](#footnote-ref-70)
71. NGR r.79. [↑](#footnote-ref-71)
72. NGR r.77(2)(b). [↑](#footnote-ref-72)
73. NGR r. 79 and 77(2)(b). [↑](#footnote-ref-73)
74. NGR, Schedule 1 clause 5(1)(a). [↑](#footnote-ref-74)
75. NGR r.79. [↑](#footnote-ref-75)
76. SP AusNet, Access Arrangement Information: Appendices 5J.1–5J.9, March 2012. [↑](#footnote-ref-76)
77. Submissions were received from the Energy Users Coalition of Victoria, Origin Energy, AGL and Australian Power and Gas. [↑](#footnote-ref-77)
78. AER, Final decision for the Victorian electricity distribution network service providers, Distribution determination 2011–2015, October 2010, pp.150–151. [↑](#footnote-ref-78)
79. SP AusNet, Access Arrangement Information, March 2012, p. 49. (SP AusNet, Access Arrangement Information, March 2012). [↑](#footnote-ref-79)
80. SP AusNet, Access Arrangement Information, March 2012, p. 50. [↑](#footnote-ref-80)
81. SP AusNet, Access Arrangement Information, March 2012, p. 50. [↑](#footnote-ref-81)
82. SP AusNet, Access Arrangement Information, March 2012, p. 52. [↑](#footnote-ref-82)
83. SP AusNet, Gas Access Arrangement Review - Customer Capital Paper Appendix 5C, March 2012, p. 7. [↑](#footnote-ref-83)
84. AER, AER approved spreadsheet, Driver summary worksheet. [↑](#footnote-ref-84)
85. SP AusNet, Response to information request 23 of 13 July 2012, received 23 July 2012, p. 1. [↑](#footnote-ref-85)
86. SP AusNet, Access Arrangement Information, March 2012, p. 53. [↑](#footnote-ref-86)
87. SP AusNet, Access Arrangement Information, March 2012, p. 52. [↑](#footnote-ref-87)
88. Note: AER approved capital expenditure presented here does not include AER material and labour escalation adjustments. [↑](#footnote-ref-88)
89. SP AusNet, Access Arrangement Information, March 2012, p. 103. [↑](#footnote-ref-89)
90. SP AusNet, Access Arrangement Information, March 2012, p. 103. [↑](#footnote-ref-90)
91. This consists of actual volumes for 2008-11 plus an estimate for 2012. [↑](#footnote-ref-91)
92. SP AusNet, Access Arrangement Information, March 2012, pp.102–103. [↑](#footnote-ref-92)
93. EUCV, Victorian Gas Distribution Revenue Reset, applications from Envestra, Multinet and SP AusNet, A response by Energy Users Coalition of Victoria, Response to SP AusNet's access arrangement proposal, June 2012, p. 22. (EUCV, Response to SP AusNet's Access Arrangement Proposal, June 2012). [↑](#footnote-ref-93)
94. SP AusNet, Response to information request 4 of 1 June 2012, received 4 June 2012, pp. 28–31. [↑](#footnote-ref-94)
95. ESC 2003-2007 Final Decision, p.117 [↑](#footnote-ref-95)
96. ESC 2003-2007 Final Decision, p.117 [↑](#footnote-ref-96)
97. SP AusNet, *Access Arrangement Information*, March 2012, p.103. [↑](#footnote-ref-97)
98. SP AusNet, *Access Arrangement Information*, March 2012, p.103. [↑](#footnote-ref-98)
99. Imposed under s.37 and s.44 of the Gas Safety Act 1997 (Vic). [↑](#footnote-ref-99)
100. SP AusNet, *Access Arrangement Information*, March 2012, p.102. [↑](#footnote-ref-100)
101. "Facility" means, amongst other things, a pipeline: s 3(1) of the Gas Safety Act 1997 (Vic). [↑](#footnote-ref-101)
102. Gas Safety Act 1997 (Vic), s.3 [↑](#footnote-ref-102)
103. SP AusNet, Response to information request 8 of 8 June 2012, received 18 June 2012, p. 4. [↑](#footnote-ref-103)
104. This captures the cost of urgent mains repairs, which are generally under 20 metres – see. SP AusNet, Response to information request 8 of 8 June 2012, received 18 June 2012, p. 5. [↑](#footnote-ref-104)
105. Over the 2003–07 access arrangement period SP AusNet under delivered by 16 per cent against the approved volumes–see ESC, Review of gas access arrangements, Final decision, October 2002, p. 120; SP AusNet, Regulatory Information Notice, March 2012, Template 2(a)-Non-demand capex incl. RPM [↑](#footnote-ref-105)
106. SP AusNet, *Access Arrangement Information*, March 2012, p.49 [↑](#footnote-ref-106)
107. SP AusNet, Access Arrangement Information, March 2012, p. 49. [↑](#footnote-ref-107)
108. SP AusNet, Response to information request 8 of 8 June 2012, received 18 June 2012, p. 4. [↑](#footnote-ref-108)
109. Gas Safety Act 1997 (Vic), s.45 [↑](#footnote-ref-109)
110. SP AusNet, Access Arrangement Information, March 2012, p. 50. [↑](#footnote-ref-110)
111. SP AusNet, Access Arrangement Information, March 2012, p. 107. [↑](#footnote-ref-111)
112. SP AusNet, Access Arrangement Information, March 2012, pp. 104–5. [↑](#footnote-ref-112)
113. SP AusNet, Access Arrangement Information, March 2012, p. 106. [↑](#footnote-ref-113)
114. Zincara, Review of SP AusNet’s Capital Expenditure, September 2012, pp.9-12. [↑](#footnote-ref-114)
115. SP AusNet, Response to information request 15 of 26 June 2012, received 4 July 2012, p. 14. [↑](#footnote-ref-115)
116. SP AusNet, Access Arrangement Information: Appendix 5A Asset Management Strategy, Figure 39, March 2012, p. 68. [↑](#footnote-ref-116)
117. SP AusNet, Access Arrangement Information: Appendix 5J.3 Mains and services strategy, March 2012, p. 49. [↑](#footnote-ref-117)
118. SP AusNet, Access Arrangement Information: Appendix 5J.3 Mains and Services Strategy, March 2012, p. 77. [↑](#footnote-ref-118)
119. SP AusNet, Access Arrangement Information: Appendix 5J.3 Mains and Services Strategy, March 2012, p. 49. [↑](#footnote-ref-119)
120. SP AusNet, Response to information request 17 of 3 July 2012, received 10 July 2012, p. 4. [↑](#footnote-ref-120)
121. Zincara, Review of SP AusNet’s Capital Expenditure, September 2012, pp.12-13. [↑](#footnote-ref-121)
122. SP AusNet, Response to information request 17 of 3 July 2012, received 10 July 2012, pp. 5–6. [↑](#footnote-ref-122)
123. SP AusNet, Access Arrangement Information: Appendix 5C Customer Capital Paper, March 2012, p. 10. [↑](#footnote-ref-123)
124. SP AusNet, Access Arrangement Information: Appendix 5C Customer Capital Paper, March 2012, p. 6. [↑](#footnote-ref-124)
125. EUCV, Response to SP AusNet's Access Arrangement Proposal, June 2012, p. 23. [↑](#footnote-ref-125)
126. Access Arrangement Information: Appendix 5C Customer Capital Paper, March 2012, p.9. [↑](#footnote-ref-126)
127. SP AusNet, Response to information request 17 of 3 July 2012, received 10 July 2012, p. 10. [↑](#footnote-ref-127)
128. SP AusNet, Response to information request 8 of 8 June 2012, received 22 June 2012, p. 17. [↑](#footnote-ref-128)
129. SP AusNet, Access Arrangement Information, March 2012, p. 100. [↑](#footnote-ref-129)
130. SP AusNet, Access Arrangement Information, March 2012, p. 101. [↑](#footnote-ref-130)
131. SP AusNet, Access Arrangement Information, March 2012, p. 110; SP AusNet, Access Arrangement Information: Appendix 5C Customer Capital Paper, March 2012, p. 18. [↑](#footnote-ref-131)
132. Services Australia/Services New Zealand, Gas meters—In service compliance testing AS/NZS 4944:2006, May 2006. [↑](#footnote-ref-132)
133. SP AusNet, Access Arrangement Information, March 2012, p. 111. [↑](#footnote-ref-133)
134. SP AusNet, Capital expenditure forecast model, March 2012, GAAR\_CapexForecast\_020 worksheet. [↑](#footnote-ref-134)
135. EUCV, Response to SP AusNet's Access Arrangement Proposal, June 2012, p. 23. [↑](#footnote-ref-135)
136. SP AusNet, Response to information request 4 of 18 May 2012, received 1 June 2012, Q. 20 Final - Capital Expenditure.xlsx. [↑](#footnote-ref-136)
137. SP AusNet, Access Arrangement Information: Appendix 5A Gas Asset Management Strategy, March 2012, p. 76. [↑](#footnote-ref-137)
138. SP AusNet, Access Arrangement Information: Appendix 5B Meter Management Plan, March 2012, p. 10. [↑](#footnote-ref-138)
139. SP AusNet, Response to information request 4 of 18 May 2012, received 1 June 2012, Q. 20 Final - Capital Expenditure.xlsx. [↑](#footnote-ref-139)
140. SP AusNet, Access Arrangement Information: Appendix 5B Meter Management Plan, March 2012p. 18. [↑](#footnote-ref-140)
141. SP AusNet, Response to information request 15 of 26 June 2012, received 4 July 2012. [↑](#footnote-ref-141)
142. SP AusNet, Response to information request 16 of 2 July 2012, received 9 July 2012, p. 1. [↑](#footnote-ref-142)
143. SP AusNet, Response to information request 15 of 26 June 2012, Received 4 July 2012, p. 24. [↑](#footnote-ref-143)
144. SP AusNet, Response to information request 4 of 18 May 2012, received 1 June 2012, Q. 20 Final - Capital Expenditure.xlsx. [↑](#footnote-ref-144)
145. ESC, Gas Distribution System Code Version 9.0, December 2008, Clause 7.2.3(b)(i). [↑](#footnote-ref-145)
146. SP AusNet, Response to information request 4 of 18 May 2012, received 1 June 2012, Q. 20 Final - Capital Expenditure.xlsx. [↑](#footnote-ref-146)
147. SP AusNet, Access Arrangement Information: Appendix 5B Meter Management Plan, March 2012, p. 18. [↑](#footnote-ref-147)
148. SP AusNet, Response to information request 15 of 26 June 2012, received 4 July 2012, p. 23–4. [↑](#footnote-ref-148)
149. SP AusNet, Response to information request 8 of 8 June 2012, received 22 June 2012, Q. 12 SPN Capital Forecast Model - capex.xlsx [↑](#footnote-ref-149)
150. SP AusNet, Response to information request 8 of 8 June 2012, received 19 June 2012. [↑](#footnote-ref-150)
151. SP AusNet, Access Arrangement Information, March 2012, p. 114. [↑](#footnote-ref-151)
152. Zincara, Review of SP AusNet’s Capital Expenditure, September 2012, pp.15-24.. [↑](#footnote-ref-152)
153. Zincara, Review of SP AusNet's Capital Expenditure, pp.15-24 [↑](#footnote-ref-153)
154. This excludes the IT component of SCADA which is included with IT. [↑](#footnote-ref-154)
155. SP AusNet, Access Arrangement Information, March 2012, p. 120. [↑](#footnote-ref-155)
156. SP AusNet, Access Arrangement Information, March 2012, p.123. [↑](#footnote-ref-156)
157. SP AusNet, Access Arrangement Information, March 2012, p. 124. [↑](#footnote-ref-157)
158. SP AusNet, Access Arrangement Information, March 2012, p.121. [↑](#footnote-ref-158)
159. SP AusNet, Access Arrangement Information, March 2012, pp.122–123. [↑](#footnote-ref-159)
160. Nous Group, Victorian gas distribution access arrangement 2013-17: Review of IT expenditure, Final Report, August 2012, pp. 39–41. [↑](#footnote-ref-160)
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     Consumer Commission, December 2004, p xiii, 65. [↑](#footnote-ref-197)
198. Handley, *A note on the cost of raising debt and equity capital,* April 2009. [↑](#footnote-ref-198)
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202. SP AusNet PTRM ‘equity raising costs’ cell G45. [↑](#footnote-ref-202)
203. NGR, r. 87. [↑](#footnote-ref-203)
204. 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-204)
205. The paired bonds extrapolation method was determined by PwC, in a report commissioned by SP AusNet and the Victorian gas distribution service providers. However, PwC (and subsequently SP AusNet) appears to have incorrectly applied the selection criteria outlined in its proposal to select the relevant paired bonds. Accordingly, the AER has corrected this error in applying SP AusNet's proposed paired bonds extrapolation method. PwC, SP AusNet, Multinet Gas, Envestra and APA Group: Estimating the benchmark debt risk premium, March 2012. [↑](#footnote-ref-205)
206. 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-206)
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210. NGR r. 99 (3). [↑](#footnote-ref-210)
211. NGR r. 64(2). [↑](#footnote-ref-211)
212. NGL s. 28(1). [↑](#footnote-ref-212)
213. NGL s. 28(2)(a)(i) [↑](#footnote-ref-213)
214. NGL, s. 24. [↑](#footnote-ref-214)
215. Australian Competition Tribunal, *Application by WA Gas Network Pty Ltd (No 3) [2012] ACompT*, 8 June 2012, paragraph 64. [↑](#footnote-ref-215)
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217. NGR, rule 87(1)); Section 1.3.1 below contains evidence for why this approach is consistent with the rules. [↑](#footnote-ref-217)
218. See, for example, VAA, *Market risk premiu*:*, a review paper*, August 2008, pp. 3–4. [↑](#footnote-ref-218)
219. See, for example, R. Mehra and E.C. Prescott, Journal of Monetary Economics, The equity premium, a puzzle, 15, 1985, pp. 145–61; A. Damodoran, E*quity* r*isk* p*remiums (ERP),* d*eterminants,* e*stimation and* i*mplications*, September 2008, p. 1; J.S. Doran, E.I. Ronn and R.S. Goldberg, *A simple model for time-varying expected returns on the S&P 500 Index*, August 2005, pp. 2–3. [↑](#footnote-ref-219)
220. Australian Competition Tribunal, *Application by Envestra Ltd (No 2) [2012] ACompT 4*, 11 January 2012, paragraph 146. [↑](#footnote-ref-220)
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222. M. McKenzie, and G. Partington, Report to the AER: Estimation of the equity beta (conceptual and econometric issues) for a gas regulatory process in 2012, 3 April 2012, (McKenzie and Partington, Estimation of equity beta, April 2012). [↑](#footnote-ref-222)
223. AER, Final decision: APTPPL access arrangement, August 2012. [↑](#footnote-ref-223)
224. AER, Draft decision: Powerlink: Transmission determination 2012-2017, November 2011, pp. 225–229. [↑](#footnote-ref-224)
225. 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-225)
226. 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-226)
227. 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-227)
228. 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-228)
229. 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-229)
230. 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-230)
231. 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-231)
232. 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-232)
233. ERA, Revised decision, Access arrangement revisions for the Mid-West and South-West Gas Distribution System, 25 June 2012, pp. 5–12. [↑](#footnote-ref-233)
234. Based on SP AusNet's indicative averaging period, this ‘bond-yield approach’ estimate incorporates 60 bonds with an average term to maturity of 5.94 years. [↑](#footnote-ref-234)
235. This estimate reflects the paired bonds extrapolation sample proposed by SP AusNet. [↑](#footnote-ref-235)
236. NGR, r. 87. [↑](#footnote-ref-236)
237. SP AusNet, Access arrangement information, 30 March 2012, p. 189. [↑](#footnote-ref-237)
238. Envestra, Access arrangement information, 31 March 2012, p. 158; Multinet, Access arrangement information, 30 March 2012, p. 154. [↑](#footnote-ref-238)
239. APA GasNet, Access arrangement submission, 31 March 2012, p. 141. [↑](#footnote-ref-239)
240. BHP Billiton, Submission to the AER: APA GasNet access arrangement proposal, 29 June 2012, p. 9. [↑](#footnote-ref-240)
241. Energy Users Coalition of Victoria, Submission to the AER: APA GasNet access arrangement proposal, 18 June 2012, pp. 57-58. [↑](#footnote-ref-241)
242. ERA, Final Decision on Proposed Revisions to the Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline, Submitted by DBNGP (WA) Transmission Pty Ltd, 31 October 2011, pp. 130. [↑](#footnote-ref-242)
243. Australian Competition Tribunal, Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14, 26 July 2012, paragraph 137. [↑](#footnote-ref-243)
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245. This estimate reflects the paired bonds sample proposed by SP AusNet. . [↑](#footnote-ref-245)
246. Envestra, Access arrangement information, 30 March 2012; SP AusNet, Access arrangement information, 30 March 2012; Multinet, Access arrangement information, 30 March 2012. [↑](#footnote-ref-246)
247. BHP Billiton, Submission to the AER: APA GasNet access arrangement proposal, 29 June 2012, p. 17. [↑](#footnote-ref-247)
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249. 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-249)
250. 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-250)
251. 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-251)
252. 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-252)
253. ERA, Revised decision, Access arrangement revisions for the Mid-West and South-West Gas Distribution System, 25 June 2012, pp. 5–12. [↑](#footnote-ref-253)
254. Based on SP AusNet's indicative averaging period, this ‘bond-yield approach’ estimate incorporates 60 bonds with an average term to maturity of 5.94 years. [↑](#footnote-ref-254)
255. 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-255)
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265. 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-265)
266. Australian Competition Tribunal, Telstra Corporation Limited ABN 33 051 775 556 [2010] ACompT 1, 10 May 2010, paragraph 417. [↑](#footnote-ref-266)
267. 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-267)
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269. RBA, Letter regarding the CGS market, July 2012, p. 1. [↑](#footnote-ref-269)
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289. Federal Court of Australia, ActewAGL Distribution v The Australian Energy Regulator [2011] FCA 639, 8 June, 2011, paragraph 119. [↑](#footnote-ref-289)
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292. 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-292)
293. 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-293)
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300. AER, Final decision—WACC Review, May 2009, pp. 173-174 [↑](#footnote-ref-300)
301. Lally, Risk free rate and present value, August 2012, p. 7. [↑](#footnote-ref-301)
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310. 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-310)
311. 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-311)
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313. Appendix B discusses the details. [↑](#footnote-ref-313)
314. Australian Competition Tribunal, *Application by Envestra Ltd (No 2) [2012] ACompT4*, 11 January 2012, paragraph 157. [↑](#footnote-ref-314)
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321. McKenzie and Partington, Equity market risk premium, December 2011, p. 7 [↑](#footnote-ref-321)
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345. S. 24 (5) of the NGL [↑](#footnote-ref-345)
346. Lally, Cost of equity and the MRP, July 2012, p. 22. [↑](#footnote-ref-346)
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348. See section 4.3.1 for further discussion. [↑](#footnote-ref-348)
349. AER, Final decision: WACC review, May 2009, pp. 72–7. [↑](#footnote-ref-349)
350. 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-350)
351. 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-351)
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359. 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-359)
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363. CEG, Risk free rate and MRP in the CAPM, March 2012, pp. 33–40. [↑](#footnote-ref-363)
364. 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-364)
365. Lally, Cost of equity and the MRP, July 2012, p. 14. [↑](#footnote-ref-365)
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368. 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-368)
369. 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-369)
370. 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-370)
371. EUCV, Applications from Envestra, Multinet and SP AusNet, A response by EUCV, June 2012, p. 57, 58. [↑](#footnote-ref-371)
372. NGL, s. 24(2). [↑](#footnote-ref-372)
373. 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-373)
374. SP AusNet, Access arrangement information, 30 March 2012. [↑](#footnote-ref-374)
375. 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-375)
376. Other factors—for example, industry type—may also be relevant in determining the level of risk involved in providing reference services. [↑](#footnote-ref-376)
377. 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-377)
378. This is because seven years is the maximum term currently published for the Bloomberg BBB fair value curve. [↑](#footnote-ref-378)
379. PwC, SP AusNet, MultiNet Gas, Envestra, and APA Group: Estimating the benchmark debt risk premium, March 2012, p. 22. [↑](#footnote-ref-379)
380. PwC, SP AusNet, MultiNet Gas, Envestra, and APA Group: Estimating the benchmark debt risk premium, March 2012, p. 13. [↑](#footnote-ref-380)
381. Energy User's Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012. [↑](#footnote-ref-381)
382. For example, the DRP for seven year debt should be determined with reference to the seven year risk free rate. [↑](#footnote-ref-382)
383. 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-383)
384. SP AusNet, Access arrangement information, 30 March 2012, p. 186. [↑](#footnote-ref-384)
385. AER, Final decision: WACC Review, May 2009, p. 126. [↑](#footnote-ref-385)
386. 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-386)
387. 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-387)
388. NGR, r. 76(b). [↑](#footnote-ref-388)
389. 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-389)
390. NGR, rr. 89(1)(c), 74(2)(a), 74(2)(b) and r. 77(2)(d); NGR, schedule 1, r. 5(1)(d). [↑](#footnote-ref-390)
391. NGR, rr. 74(2)(a) and 74(2)(b). [↑](#footnote-ref-391)
392. NGR, r. 89(1)(c). [↑](#footnote-ref-392)
393. SP AusNet, Access arrangement information, March 2012, pp. 168–169. [↑](#footnote-ref-393)
394. However, the 'Mains & services' asset class has been disaggregated into four asset classes with the same standard economic lives of 60 years; and the 'Other' asset class has been disaggregated into two asset classes with the same standard economic lives of 5 years. [↑](#footnote-ref-394)
395. NGR, r. 72(1)(c)(ii). [↑](#footnote-ref-395)
396. NGR, rr. 88(1) and 88(2). [↑](#footnote-ref-396)
397. NGR, r. 89. [↑](#footnote-ref-397)
398. NGR, schedule 1, r. 5(1)(d). [↑](#footnote-ref-398)
399. 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-399)
400. 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-400)
401. NGR, r. 89(1)(a). [↑](#footnote-ref-401)
402. NGR, r. 89(1)(b). [↑](#footnote-ref-402)
403. NGR, r. 89(1)(c). [↑](#footnote-ref-403)
404. NGR, r. 89(1)(d). [↑](#footnote-ref-404)
405. NGR, r. 89(1)(e). [↑](#footnote-ref-405)
406. NGR, r. 89(2). [↑](#footnote-ref-406)
407. The AER’s PTRM was developed based on the post-tax building block approach set out in the National Electricity Rules. Given that SP AusNet has proposed the post-tax building block approach for its access arrangement, the PTRM can be used to calculate the revenue requirement. [↑](#footnote-ref-407)
408. NGR, r. 89. [↑](#footnote-ref-408)
409. SP AusNet did not propose any remaining economic lives as at 1 January 2013 for its asset classes. As discussed in section , the AER has modified SP AusNet's modelling of depreciation for existing assets and changed it to using the AER's standard method for calculating depreciation for existing assets. Accordingly, the AER has calculated SP AusNet's remaining economic lives as at 1 January 2013 for its asset classes. [↑](#footnote-ref-409)
410. NGR, r. 89(1)(a). [↑](#footnote-ref-410)
411. 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-411)
412. NGR, rr. 89(1)(c), 74(2)(a), 74(2)(b) and r. 77(2)(d); NGR, schedule 1, r. 5(1)(d). [↑](#footnote-ref-412)
413. NGR, rr. 74(2)(a) and 74(2)(b). [↑](#footnote-ref-413)
414. NGR, rr. 89(1)(c), 74(2)(a), 74(2)(b) and r. 77(2)(d); NGR, schedule 1, r. 5(1)(d). [↑](#footnote-ref-414)
415. SP AusNet, Access arrangement information, March 2012, p.169. [↑](#footnote-ref-415)
416. SP AusNet, Access arrangement information, March 2012, p.169. [↑](#footnote-ref-416)
417. SP AusNet, PTRM, March 2012. [↑](#footnote-ref-417)
418. NGR, r. 89(1)(e). [↑](#footnote-ref-418)
419. SP AusNet, Access arrangement information, March 2012, p.169. [↑](#footnote-ref-419)
420. NGR, rr. 74(2)(a) and 74(2)(b). [↑](#footnote-ref-420)
421. NGR, r. 89(1)(c). [↑](#footnote-ref-421)
422. NGR, r. 77(2)(d). [↑](#footnote-ref-422)
423. NGR, schedule 1, r. 5(1)(d). [↑](#footnote-ref-423)
424. NGR, schedule 1, r. 5(1)(d); NGR, r. 77(2)(d). [↑](#footnote-ref-424)
425. NGR, r. 89(1)(c). [↑](#footnote-ref-425)
426. SP AusNet, Gas Access Arrangement Revision - Part B Reference Tariffs and Reference Tariff Policy, March 2012, cl. 7.2(a)(2). [↑](#footnote-ref-426)
427. NGR, r. 89(1)(e). [↑](#footnote-ref-427)
428. NGR, r. 89(1)(e). [↑](#footnote-ref-428)
429. NGR, rr. 89(1)(c), 74(2)(a), 74(2)(b) and r. 77(2)(d); NGR, schedule 1, r. 5(1)(d). [↑](#footnote-ref-429)
430. ESC, SP AusNet 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-430)
431. However, the 'Mains & services' asset class has been disaggregated into four asset classes with the same standard economic lives of 60 years; and the 'Other' asset class has been disaggregated into two asset classes with the same standard economic lives of 5 years. [↑](#footnote-ref-431)
432. AER, Roma to Brisbane Pipeline draft decision, April 2012, p. 19; AER, Aurora Energy draft distribution determination, November 2011, p. 205. [↑](#footnote-ref-432)
433. Australian Accounting Standard Board, *Accounting standard AASB1021: Depreciation, August 1997*,   
     pp. 10–11. [↑](#footnote-ref-433)
434. ITAA 1997, s. 40-30. [↑](#footnote-ref-434)
435. AER, *Information request for SP AusNet relating to PTRM inputs (‘Land & buildings’)*, 21 June 2012. [↑](#footnote-ref-435)
436. SP AusNet, Response to AER information request for SP AusNet relating to PTRM inputs (‘Land & buildings’), 25 June 2012. [↑](#footnote-ref-436)
437. ESC, SP AusNet GAAR 2008 Revenue Model Further Final Decision, 2008. [↑](#footnote-ref-437)
438. AER, N.T. Gas draft decision, April 2011, p. 56; AER, Energex and Ergon draft decision, November 2009,   
     pp. 223, 225; AER, ETSA Utilities draft decision, November 2009, p. 284. [↑](#footnote-ref-438)
439. NGR, r. 89(1)(c). [↑](#footnote-ref-439)
440. NGR, rr. 74(2)(a) and 74(2)(b). [↑](#footnote-ref-440)
441. SP AusNet, PTRM, March 2012. [↑](#footnote-ref-441)
442. SP AusNet, Access arrangement information, March 2012, p. 103. [↑](#footnote-ref-442)
443. NGR, r. 89(1)(c). [↑](#footnote-ref-443)
444. NGR, rr. 74(2)(a) and 74(2)(b). [↑](#footnote-ref-444)
445. At the next review, SP AusNet could apply the AER’s standard weighted average remaining economic lives calculation to roll forward to 1 January 2018, given the remaining economic lives as at 1 January 2013 having now been established. [↑](#footnote-ref-445)
446. The AER has used the reduced remaining economic life as at 1 January 1998 associated with low pressure mains to calculate the depreciation for low pressure mains for the 2013–17 access arrangement period. This depreciation amount is then added together with the depreciation amount calculated for other mains over the 2013–17 access arrangement period. The total depreciation amount is averaged over five years to arrive at the average depreciation amount for the 'Distribution pipelines' asset class. The AER then calculates the remaining life for the 'Distribution pipelines' asset class by dividing the closing asset values as at 31 December 2012 by the average depreciation amount. [↑](#footnote-ref-446)
447. NGR, r. 91, r. 74. [↑](#footnote-ref-447)
448. NGR, r. 91, r. 71. [↑](#footnote-ref-448)
449. SP AusNet, Access arrangement information, 30 March 2012, table 6-1 and AER analysis. [↑](#footnote-ref-449)
450. SP AusNet, Access arrangement information, 30 March 2012, pp. 135–6. [↑](#footnote-ref-450)
451. SP AusNet, Access arrangement information, 30 March 2012, pp. 136–9. [↑](#footnote-ref-451)
452. SP AusNet, Access arrangement information, 30 March 2012, p. 144. [↑](#footnote-ref-452)
453. SP AusNet, Access arrangement information, 30 March 2012, p. 139. [↑](#footnote-ref-453)
454. SP AusNet, Access arrangement information, 30 March 2012, p. 144. [↑](#footnote-ref-454)
455. SP AusNet, Access arrangement information, 30 March 2012, pp. 146–8. [↑](#footnote-ref-455)
456. AER analysis of SP AusNet's opex model. [↑](#footnote-ref-456)
457. SP AusNet, Access arrangement information, 30 March 2012, pp. 148–9. [↑](#footnote-ref-457)
458. AER analysis of SP AusNet's opex model. [↑](#footnote-ref-458)
459. AER analysis of SP AusNet's opex model. [↑](#footnote-ref-459)
460. SP AusNet, Access arrangement information, 30 March 2012, p. 148. [↑](#footnote-ref-460)
461. AER analysis of SP AusNet's opex model. [↑](#footnote-ref-461)
462. SP AusNet, Access arrangement information, 30 March 2012, pp. 148–60. [↑](#footnote-ref-462)
463. SP AusNet, Access arrangement information, 30 March 2012, p. 156. [↑](#footnote-ref-463)
464. SP AusNet, Access arrangement information, 30 March 2012, p. 156. [↑](#footnote-ref-464)
465. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, p. 33. [↑](#footnote-ref-465)
466. NGR, rr. 91(2) and 40(2). [↑](#footnote-ref-466)
467. NGR, rr. 91 and 40(2). [↑](#footnote-ref-467)
468. NGR, rr. 74(2) and 91(2). [↑](#footnote-ref-468)
469. NGR, rr. 91 and 74. [↑](#footnote-ref-469)
470. SP AusNet, Access arrangement information, 30 March 2012, pp. 141–143. [↑](#footnote-ref-470)
471. SP AusNet, Access arrangement information, 30 March 2012, p. 235. [↑](#footnote-ref-471)
472. SP AusNet, Access arrangement information, 30 March 2012, p. 201. [↑](#footnote-ref-472)
473. SP AusNet, Access arrangement information, 30 March 2012, p. 198. [↑](#footnote-ref-473)
474. SP AusNet, Access arrangement information, 30 March 2012, p. 141. [↑](#footnote-ref-474)
475. SP AusNet, Access arrangement information, 30 March 2012, p. 141. [↑](#footnote-ref-475)
476. Gas Distribution System Code, Schedule 1, Part C. [↑](#footnote-ref-476)
477. SP AusNet, Access arrangement information, 30 March 2012, p. 31. [↑](#footnote-ref-477)
478. SP AusNet, Access arrangement information, 30 March 2012, p. 140. [↑](#footnote-ref-478)
479. SP AusNet, Response to information request 29, 10 August 2012, p. 1. [↑](#footnote-ref-479)
480. AASB, 137: Provisions, contingent liabilities and contingent assets, section 10. [↑](#footnote-ref-480)
481. NGR, rule 74(2). [↑](#footnote-ref-481)
482. SP AusNet, Access arrangement information, 30 March 2012, p. 145. [↑](#footnote-ref-482)
483. SP AusNet, Access arrangement information, 30 March 2012, p. 145. [↑](#footnote-ref-483)
484. SP AusNet, Access arrangement information, 30 March 2012, p. 148. [↑](#footnote-ref-484)
485. AER analysis. [↑](#footnote-ref-485)
486. NGR, r. 74(2)(b). [↑](#footnote-ref-486)
487. AER analysis. [↑](#footnote-ref-487)
488. NGR, r. 74(2)(a). [↑](#footnote-ref-488)
489. NGR, r. 74(2)(b). [↑](#footnote-ref-489)
490. SP AusNet, Access arrangement information, 30 March 2012, p. 150. [↑](#footnote-ref-490)
491. SP AusNet, Access arrangement information, 30 March 2012, p. 150. [↑](#footnote-ref-491)
492. SP AusNet, Access arrangement information, 30 March 2012, p. 150. [↑](#footnote-ref-492)
493. NGR, r. 72(2). [↑](#footnote-ref-493)
494. NGR, r. 91(1). [↑](#footnote-ref-494)
495. SP AusNet, Access arrangement information, 30 March 2012, p. 150. [↑](#footnote-ref-495)
496. SP AusNet, Response to information request 7, 12 June 2012, pp. 11–12. [↑](#footnote-ref-496)
497. SP AusNet, Access arrangement information, 30 March 2012, p. 150. [↑](#footnote-ref-497)
498. SP AusNet, Access arrangement information, 30 March 2012, p. 151. [↑](#footnote-ref-498)
499. Media release: Victorian Government defers National Energy Retail Law to safeguard consumer protections Wednesday, 13 June 2012 - 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-499)
500. Media release: Victorian Government defers National Energy Retail Law to safeguard consumer protections Wednesday, 13 June 2012 - 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-500)
501. SP AusNet, Access arrangement information, 30 March 2012, p. 155. [↑](#footnote-ref-501)
502. SP AusNet, response to AER information request 7, 8 June 2012. [↑](#footnote-ref-502)
503. SP AusNet, response to AER information request 7, 8 June 2012. [↑](#footnote-ref-503)
504. SP AusNet, response to AER information request 7, 8 June 2012. [↑](#footnote-ref-504)
505. This amount of $110,000 was approved for a six month period, indicating an annual cost of $220,000. [↑](#footnote-ref-505)
506. AER Decision, SP AusNet change in taxes event pass through application. June 2012. p. 15. [↑](#footnote-ref-506)
507. AER Decision, SP AusNet change in taxes event pass through application. June 2012. p. 15. [↑](#footnote-ref-507)
508. SP AusNet, Access arrangement information, 30 March 2012, p. 155. [↑](#footnote-ref-508)
509. SP AusNet, Access arrangement information, 30 March 2012, pp. 156–157. [↑](#footnote-ref-509)
510. SP AusNet, Access arrangement information, 30 March 2012, p. 157. [↑](#footnote-ref-510)
511. SP AusNet, Access arrangement information, 30 March 2012, p. 157. [↑](#footnote-ref-511)
512. SP AusNet, Access arrangement information, 30 March 2012, pp. 156–157. [↑](#footnote-ref-512)
513. 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-513)
514. NEL, s.24. [↑](#footnote-ref-514)
515. SP AusNet, Access arrangement information, March 2012, p. 159. [↑](#footnote-ref-515)
516. NEL, s. 24. [↑](#footnote-ref-516)
517. NGR, r. 91. [↑](#footnote-ref-517)
518. The revenue and pricing principles are in s. 24 of the NGL. [↑](#footnote-ref-518)
519. SP AusNet, Access arrangement information, 30 March 2012, pp. 205–206. [↑](#footnote-ref-519)
520. SP AusNet, Access arrangement information, 30 March 2012, p. 207. [↑](#footnote-ref-520)
521. SP AusNet, Access arrangement information, 30 March 2012, p. 207. [↑](#footnote-ref-521)
522. Actual for years 2013–16 and updated forecast for 2017 as determined in the 2018–22 GAAR. [↑](#footnote-ref-522)
523. Actual for years 2013–16 and updated forecast for 2017 as determined in the 2018–22 GAAR. [↑](#footnote-ref-523)
524. Actual for years 2013–16 and updated forecast for 2017 as determined in the 2018–22 GAAR. [↑](#footnote-ref-524)
525. SP AusNet, Access arrangement information, 30 March 2012, p. 208. [↑](#footnote-ref-525)
526. 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, cl. 5(1)(a)). [↑](#footnote-ref-526)
527. NGR, r. 98. [↑](#footnote-ref-527)
528. NGR, r. 98(1); NGL, s24(3). [↑](#footnote-ref-528)
529. This is to ensure the proposed incentive mechanism provides effective incentives to encourage efficiency in the provision of reference services consistent with r. 98 of the NGR, and the RPP (s. 24 of the NGL). [↑](#footnote-ref-529)
530. ESC, Gas access arrangement review 2008–2012: Final decision, 7 March 2008, pp. 584–585. [↑](#footnote-ref-530)
531. NGR, r. 98; NGL, s. 24. [↑](#footnote-ref-531)
532. 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-532)
533. 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-533)
534. 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-534)
535. NGL, s. 23. [↑](#footnote-ref-535)
536. NGL, s. 24. [↑](#footnote-ref-536)
537. This should refer to the table in SP AusNet's Access arrangement information that replicates table 7.4. [↑](#footnote-ref-537)
538. This should refer to the table in SP AusNet's Access arrangement information that replicates table 7.4. [↑](#footnote-ref-538)
539. 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-539)
540. ESC, Gas Access Arrangement Review 2008–2012 Draft Decision, 28 August 2007, pp. 522–524. [↑](#footnote-ref-540)
541. ESC, Gas Access Arrangement Review 2008–2012 Draft Decision, 28 August 2007, pp. 523–524. [↑](#footnote-ref-541)
542. Under the Gas Industry Act 2001 (Victoria). [↑](#footnote-ref-542)
543. In particular, subss. 24(3)(a), (3)(c), (6) and (7) of the NGL. [↑](#footnote-ref-543)
544. NGR, r. 76(c). [↑](#footnote-ref-544)
545. SP AusNet, Post tax revenue model, March 2012. [↑](#footnote-ref-545)
546. 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-546)
547. SP AusNet, Post tax revenue model, March 2012. [↑](#footnote-ref-547)
548. SP AusNet, Post tax revenue model, March 2012; and SP AusNet, 2013–2017 Gas access arrangement review, Access arrangement information, March 2012, p. 188. [↑](#footnote-ref-548)
549. NGR, r. 76(c). [↑](#footnote-ref-549)
550. 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-550)
551. 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 earlier access arrangement period will be consistent. [↑](#footnote-ref-551)
552. 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-552)
553. 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-553)
554. NGR, r. 74(2)(b). [↑](#footnote-ref-554)
555. NGR, r. 74(2). [↑](#footnote-ref-555)
556. AER, Roma to Brisbane Pipeline draft decision, April 2012, p. 22; AER, Aurora Energy draft distribution determination, November 2011, p. 262. [↑](#footnote-ref-556)
557. Australian Accounting Standard Board, Accounting standard AASB1021: Depreciation, August 1997,   
     pp. 10–11. [↑](#footnote-ref-557)
558. ITAA 1997, s. 40-30. [↑](#footnote-ref-558)
559. AER, AER i*nformation request* 12, 21 June 2012. [↑](#footnote-ref-559)
560. SP AusNet, Response to AER information request 12, 25 June 2012. [↑](#footnote-ref-560)
561. ITAA 1997, s. 40-65. [↑](#footnote-ref-561)
562. AER, Roma to Brisbane Pipeline draft decision, April 2012, p. 19. [↑](#footnote-ref-562)
563. ITAA 1997, s. 25-10. [↑](#footnote-ref-563)
564. SP AusNet, PTRM, March 2012. [↑](#footnote-ref-564)
565. ESC, *SP AusNet GAAR 2008* revenue model further final decision*,* 2008. [↑](#footnote-ref-565)
566. Australian Competition Tribunal, *Application by Energex Limited (Gamma) (No. 5)[2011] ACompT 9*, 12 May 2011, paragraph 42. [↑](#footnote-ref-566)
567. AER, Roma to Brisbane Pipeline final decision, August 2012, p. 20. [↑](#footnote-ref-567)
568. NGR, r. 74(2). [↑](#footnote-ref-568)
569. Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17,March 2012, p. 15–16. [↑](#footnote-ref-569)
570. Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17,March 2012, p. 15–16. [↑](#footnote-ref-570)
571. NGR, r. 72(1)(a)(iii). [↑](#footnote-ref-571)
572. NGR, r. 72(1)(d). [↑](#footnote-ref-572)
573. NGR, r. 74(2). [↑](#footnote-ref-573)
574. NGR, r. 74(2). [↑](#footnote-ref-574)
575. ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012. [↑](#footnote-ref-575)
576. Energy Users Coalition of Victoria, Submission to AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012. [↑](#footnote-ref-576)
577. NGR, r. 74(2). [↑](#footnote-ref-577)
578. NGR, r. 72(1)(a)(iii)(A). [↑](#footnote-ref-578)
579. These issues are discussed in detail in: ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, p. 3-4. [↑](#footnote-ref-579)
580. ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, s. 4. [↑](#footnote-ref-580)
581. ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, p. 4. [↑](#footnote-ref-581)
582. ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, p. 4. [↑](#footnote-ref-582)
583. NGR, r. 74(2)(b). [↑](#footnote-ref-583)
584. Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17,March 2012, p. 43. [↑](#footnote-ref-584)
585. CSIRO, 2013-2017 Gas Access Arrangement Review – Access Arrangement Information Appendix 4C CSIRO–Projected changes in temperature and heating degree-days for Melbourne and Victoria, 2008-2012, 30 March 2012, p. vii. [↑](#footnote-ref-585)
586. ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, p. 27. [↑](#footnote-ref-586)
587. ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, p. 26. [↑](#footnote-ref-587)
588. AEMO, Review of weather standards for gas forecasting Part 1 – Victorian EDD review, April 2012. [↑](#footnote-ref-588)
589. AEMO, Review of weather standards for gas forecasting Part 1 – Victorian EDD review, April 2012. [↑](#footnote-ref-589)
590. The UHI effect is the result of increased ‘urbanisation’ and thus increased numbers of buildings and other man-made structures in urban areas. Those structures themselves radiate heat thus preventing minimum temperatures from being as low as they may otherwise have been. [↑](#footnote-ref-590)
591. ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, p. 30. [↑](#footnote-ref-591)
592. Energy Users Coalition of Victoria, Submission to AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, p. 42. [↑](#footnote-ref-592)
593. Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 4. [↑](#footnote-ref-593)
594. Victoria Department of Planning & Community Development, Victoria in Future 2008; September 2009. [↑](#footnote-ref-594)
595. Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17, March 2012, p. 34. [↑](#footnote-ref-595)
596. Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17, March 2012, p. 34. [↑](#footnote-ref-596)
597. Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17, March 2012, p. 34. [↑](#footnote-ref-597)
598. Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17, March 2012, p. 2. [↑](#footnote-ref-598)
599. ESC, Gas Access Arrangement Review 2008-2012: Draft decision, August 2007, p. 440. [↑](#footnote-ref-599)
600. SP Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17, March 2012, p. 19. [↑](#footnote-ref-600)
601. SP Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17, March 2012, p. 40–41. [↑](#footnote-ref-601)
602. SP Centre for International Economics, Gas demand forecasting, SP AusNet, 2013-17, March 2012, p. 40–41. [↑](#footnote-ref-602)
603. AER, Information request 22 to SP AusNet, Submission to the AER: 10 July 2012. [↑](#footnote-ref-603)
604. SP AusNet, Submission to the AER: Information request 22 of 10 July 2012, 25 July 2012, p. 2. [↑](#footnote-ref-604)
605. SP AusNet, Submission to the AER: Information request 22 of 10 July 2012, 25 July 2012, p. 2. [↑](#footnote-ref-605)
606. SP AusNet, Submission to the AER: Information request 22, 10 July 2012, 25 July 2012, p. 3. [↑](#footnote-ref-606)
607. A higher value of price elasticity implies that SP AusNet's proposed tariff V non–residential gas demand forecasts are relatively higher than that of Envestra and Multinet. [↑](#footnote-ref-607)
608. The relatively lower price elasticity implies that SP AusNet's proposed tariff V residential gas demand forecasts are relatively lower than that proposed by Envestra and Multinet. [↑](#footnote-ref-608)
609. ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, p. 15. [↑](#footnote-ref-609)
610. ACIL Tasman, Review of demand forecasts for SP AusNet– Victorian gas access arrangement review for the period 2013–2017, August 2012, p. 15. [↑](#footnote-ref-610)
611. SP AusNet, Submission to the AER: Information request 22, 10 July 2012, 25 July 2012, p. 3. [↑](#footnote-ref-611)
612. SP AusNet, Access arrangement information, 30 March 2012, p. 233. [↑](#footnote-ref-612)
613. SP AusNet, Access arrangement information, 30 March 2012, p. 240. [↑](#footnote-ref-613)
614. SP AusNet, Access arrangement information, 30 March 2012, p. 214. [↑](#footnote-ref-614)
615. NGR, r. 48(1)(d)(i); 72(1)(j)(i); 72(1)(j)(ii) [↑](#footnote-ref-615)
616. NGR, r. 93(1)–(2) [↑](#footnote-ref-616)
617. NGR r. 94(1)–(2) [↑](#footnote-ref-617)
618. NGR, r. 94(3) [↑](#footnote-ref-618)
619. NGR, r. 94(3)–(4) [↑](#footnote-ref-619)
620. NGR, rr. 48(1)(d)(i); 72(1)(j)(i); 72(1)(j)(ii) [↑](#footnote-ref-620)
621. SP AusNet, Access arrangement information, 30 March 2012, chapter 15. [↑](#footnote-ref-621)
622. SP AusNet'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-622)
623. NGR, r. 48(1)(d)(i).. [↑](#footnote-ref-623)
624. NGR, r. 94(6). [↑](#footnote-ref-624)
625. NGR, r. 93(1) [↑](#footnote-ref-625)
626. NGR, r. 93(2) [↑](#footnote-ref-626)
627. NGR, r. 94(1)–(2). [↑](#footnote-ref-627)
628. NGR, r. 94(3). [↑](#footnote-ref-628)
629. NGR, r. 94(4)(b)(i). [↑](#footnote-ref-629)
630. NGR, r. 94(4)(a). [↑](#footnote-ref-630)
631. NGR, r. 94(4)(b). [↑](#footnote-ref-631)
632. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, p. 3. [↑](#footnote-ref-632)
633. Energy Users Coalition of Victoria, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, June 2012, p. 3. [↑](#footnote-ref-633)
634. SP AusNet, Access arrangement information, 30 March 2012, p. 235. [↑](#footnote-ref-634)
635. SP AusNet, Access arrangement information, 30 March 2012 p. 235. [↑](#footnote-ref-635)
636. SP, Response to information request of 22 June 2012, received 22 June 2012. [↑](#footnote-ref-636)
637. SP AusNet, Access arrangement information, 30 March 2012, p. 235. [↑](#footnote-ref-637)
638. SP AusNet, Access arrangement information, 30 March 2012, pp. 240–241. [↑](#footnote-ref-638)
639. SP AusNet, Access arrangement information, 30 March 2012, pp. 240–241. [↑](#footnote-ref-639)
640. NGR, r. 94(3)(b). [↑](#footnote-ref-640)
641. Under r. 94(4)(a) of the NGR, a service provider must take the long run marginal cost into account in designing its reference tariffs. [↑](#footnote-ref-641)
642. The AER notes that SP AusNet's existing tariff classes were approved by the Victorian Essential Services Commission (ESC) for the 2008–2012 access arrangement period under the National Third Party Access Code for Natural Gas Pipeline Systems Code (the Code). The AER understands that the requirements for reference tariffs under the Code and the NGR are broadly similar; though the provisions under the NGR appear to set a lower threshold by giving the AER less discretion to mandate cost reflectivity of reference tariffs. [↑](#footnote-ref-642)
643. SP AusNet, Access arrangement information, 30 March 2012, p. 214. [↑](#footnote-ref-643)
644. SP AusNet, Access arrangement information, 30 March 2012, p.214. [↑](#footnote-ref-644)
645. NGR, r. 94(3) [↑](#footnote-ref-645)
646. NGR, r. 94(3). [↑](#footnote-ref-646)
647. SP AusNet, Access arrangement information, 30 March 2012, p.238–239. [↑](#footnote-ref-647)
648. SP AusNet, Access arrangement information, 30 March 2012, p. 235. [↑](#footnote-ref-648)
649. These assumptions are outlined in: SP AusNet, Access arrangement information, 30 March 2012, p. 236. [↑](#footnote-ref-649)
650. SP AusNet, Access arrangement information, 30 March 2012, p. 244. [↑](#footnote-ref-650)
651. SP AusNet, Access arrangement information, 30 March 2012, p. 244. [↑](#footnote-ref-651)
652. SP AusNet, Access arrangement information, 30 March 2012, p.215–232. [↑](#footnote-ref-652)
653. SP AusNet, Access arrangement information, 30 March 2012, p. 215. [↑](#footnote-ref-653)
654. SP AusNet, Access arrangement information, 30 March 2012, p. 217–218. [↑](#footnote-ref-654)
655. CPI is: 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 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. For more details, see: SP AusNet, access arrangement revision 2013–2017, Part A for the access arrangement for the distribution system, 30 March 2012, pp. 15-16. [↑](#footnote-ref-655)
656. SP AusNet, Access arrangement information, 30 March 2012, p. 222–227. [↑](#footnote-ref-656)
657. SP AusNet, Access arrangement information, 30 March 2012, p. 223–225. [↑](#footnote-ref-657)
658. SP AusNet, Access arrangement information, 30 March 2012, p. 226 [↑](#footnote-ref-658)
659. SP AusNet, Access arrangement information, 30 March 2012, p. 226 [↑](#footnote-ref-659)
660. SP AusNet, Access arrangement information, 30 March 2012, p. 231–232. [↑](#footnote-ref-660)
661. SP AusNet, Access arrangement information, 30 March 2012, p. 216–217 and p. 222–223. [↑](#footnote-ref-661)
662. SP AusNet, Access arrangement proposal: Part A, 30 March 2012, p. 24. [↑](#footnote-ref-662)
663. This event is omitted in Part A for the access arrangement for the distribution system. However, it is stated in SP AusNet, Access arrangement information, 30 March 2012, p.211. [↑](#footnote-ref-663)
664. SP AusNet, Access arrangement information, 30 March 2012, p. 211–212. [↑](#footnote-ref-664)
665. SP AusNet, Access arrangement information, 30 March 2012, p. 231. [↑](#footnote-ref-665)
666. SP AusNet, Access arrangement information, 30 March 2012, p. 231. [↑](#footnote-ref-666)
667. NGR, r. 92(2). [↑](#footnote-ref-667)
668. NGR, r. 97(1). [↑](#footnote-ref-668)
669. NGR, r. 97(2). [↑](#footnote-ref-669)
670. NGR, r. 97(4). [↑](#footnote-ref-670)
671. NGR, r. 97(3). [↑](#footnote-ref-671)
672. NGR, r. 97(3)(a)–(b). [↑](#footnote-ref-672)
673. NGL, ss. 23–24. [↑](#footnote-ref-673)
674. NGR, r. 40(3). [↑](#footnote-ref-674)
675. NGR, rr. 92(2) and 97(3). [↑](#footnote-ref-675)
676. 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-676)
677. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012 p. 2-3. [↑](#footnote-ref-677)
678. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012 p. 2-3. [↑](#footnote-ref-678)
679. NGL, s. 24(3)(c). [↑](#footnote-ref-679)
680. [↑](#footnote-ref-680)
681. SP AusNet, Access arrangement information, 30 March 2012, p. 226. [↑](#footnote-ref-681)
682. [↑](#footnote-ref-682)
683. SP AusNet, Access arrangement information, 30 March 2012, p. 226. [↑](#footnote-ref-683)
684. SP AusNet, Access arrangement information, 30 March 2012, p. 226. [↑](#footnote-ref-684)
685. 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-685)
686. SP AusNet cited events such as: changing consumption profiles, the impact of climate on demand, changes in government policies affecting gas usage, or changes in the amount and location of new development due to macroeconomic events. For more details, see: SP AusNet, Access arrangement information, 30 March 2012, p. 227. [↑](#footnote-ref-686)
687. SP AusNet, Access arrangement information, 30 March 2012, p. 227. [↑](#footnote-ref-687)
688. SP AusNet, Access arrangement information, 30 March 2012, p. 80. [↑](#footnote-ref-688)
689. SP AusNet, Access arrangement information, 30 March 2012, p. 231. [↑](#footnote-ref-689)
690. SP AusNet, Access arrangement information, 30 March 2012, p. 231. [↑](#footnote-ref-690)
691. 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-691)
692. SP AusNet, Access arrangement information, 30 March 2012, pp. 216–217 and pp. 222–223. [↑](#footnote-ref-692)
693. SP AusNet, Access arrangement information, 30 March 2012, p. 133. [↑](#footnote-ref-693)
694. SP AusNet, Access arrangement proposal: Part B, 30 March 2012, s. 3.7, p. 18–20. [↑](#footnote-ref-694)
695. SP AusNet, Access arrangement information, 30 March 2012, p. 133 and pp. 228–229. [↑](#footnote-ref-695)
696. SP AusNet did not propose a carbon tax pass through event as part of the true up mechanism. [↑](#footnote-ref-696)
697. SP AusNet, Access arrangement information, 30 March 2012, p. 229–231. [↑](#footnote-ref-697)
698. SP AusNet, Access arrangement information, 30 March 2012, p. 219. [↑](#footnote-ref-698)
699. SP AusNet, Access arrangement information, 30 March 2012, p. 219. [↑](#footnote-ref-699)
700. SP AusNet, Access arrangement information, 30 March 2012, p. 219. [↑](#footnote-ref-700)
701. AEMO, Gas statement of opportunities for Eastern and South Eastern Australia, 2011. [↑](#footnote-ref-701)
702. AEMO, Gas statement of opportunities for Eastern and South Eastern Australia, 2011, chapter 6. [↑](#footnote-ref-702)
703. AEMO, Gas statement of opportunities for Eastern and South Eastern Australia, 2011, p. 6–7 to 6–9. [↑](#footnote-ref-703)
704. AEMO, Gas statement of opportunities for Eastern and South Eastern Australia, 2011 (executive summary). [↑](#footnote-ref-704)
705. AER, State of the energy market 2011, xxx, chapter 3. [↑](#footnote-ref-705)
706. Queensland Department of Employment, Economic Development and Innovation, 2011 gas market review Queensland, 2011, pp. 42–43. [↑](#footnote-ref-706)
707. Western Australia Parliament, Economics and industry standing committee: Report into domestic gas prices, Report No. 6 in the 38th Parliament, 2011, p. 79. [↑](#footnote-ref-707)
708. Western Australia Parliament, Economics and industry standing committee: Report into domestic gas prices, Report No. 6 in the 38th Parliament, 2011, p. 80. [↑](#footnote-ref-708)
709. The AER has full discretion for r. 97 of the NGR, which governs the tariff variation mechanism for an access arrangement. [↑](#footnote-ref-709)
710. NGR, r. 40(3). [↑](#footnote-ref-710)
711. NGR, r. 100. [↑](#footnote-ref-711)
712. AER, Victorian Electricity Distribution Network Service Provider's Draft Decision,2010 p. 716. [↑](#footnote-ref-712)
713. Victorian Electricity Distribution Network Service Provider's Draft Decision, p. 716. [↑](#footnote-ref-713)
714. 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

     Ltd: Access arrangement proposal for the Qld gas network 2011–2016, February 2011, p. 191 (AER, Draft

     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-714)
715. SP AusNet, 2013–2017 Gas access arrangement review – Access arrangement information, 30 March 2012, p. 211. [↑](#footnote-ref-715)
716. NGL, s. 23 and s. 24 respectively. [↑](#footnote-ref-716)
717. SP AusNet, Access arrangement information, 30 March 2012, p. 151. [↑](#footnote-ref-717)
718. SP AusNet, Access arrangement information, 30 March 2012, pp. 102–109. [↑](#footnote-ref-718)
719. SP AusNet - Gas Access Arrangement Review 2013-2017 Part A, p. 16. [↑](#footnote-ref-719)
720. SP AusNet - Gas Access Arrangement Review 2013-2017Part B, p. 29. [↑](#footnote-ref-720)
721. SP AusNet - Gas Access Arrangement Review 2013-2017Part A, p. 21. [↑](#footnote-ref-721)
722. SP AusNet did not propose an exclusion of negligence in its Insurance Event. SP AusNet: Access arrangement proposal: Part A, 30 March 2012, p.32. [↑](#footnote-ref-722)
723. SP AusNet, Access arrangement information, 30 March 2012, p. 211-212. [↑](#footnote-ref-723)
724. NGR, r. 97(4). [↑](#footnote-ref-724)
725. SP AusNet, Access arrangement proposal: Part B - Reference tariffs and reference tariff policy, 30 March 2012 p. 20. [↑](#footnote-ref-725)
726. 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-726)
727. 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-727)
728. NGR, r. 97(3)(e). [↑](#footnote-ref-728)
729. SP AusNet, Access arrangement information, 30 March 2012, p. 253. [↑](#footnote-ref-729)
730. NGR, r. 100. [↑](#footnote-ref-730)
731. NGR, r. 40(3). [↑](#footnote-ref-731)
732. NGL. s. 23; NGR, r. 100. [↑](#footnote-ref-732)
733. NGL, ss. 181, 184 and 189. [↑](#footnote-ref-733)
734. 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-734)
735. Origin, Victorian Gas Access Arrangement Review, 28 June 2012, p. 2. [↑](#footnote-ref-735)
736. Australian Power and Gas, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, p. 1. [↑](#footnote-ref-736)
737. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A. [↑](#footnote-ref-737)
738. Section 322 of the NGL provides that: 'subject to section 135, nothing in this Law is to be taken as preventing a service provider from entering into an agreement with a user or a prospective user about access to a pipeline service provided by means of a scheme pipeline that is different from an applicable access arrangement that applies to that pipeline service'. [↑](#footnote-ref-738)
739. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A. [↑](#footnote-ref-739)
740. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-740)
741. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-741)
742. SP AusNet, Access arrangement information, 30 March 2012, p. 257 [↑](#footnote-ref-742)
743. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-743)
744. Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 5­­–6. [↑](#footnote-ref-744)
745. NERR, r. 84. [↑](#footnote-ref-745)
746. SP AusNet, Access arrangement information, 30 March 2012, p. 258. [↑](#footnote-ref-746)
747. Australian Power and Gas, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, p. 3. [↑](#footnote-ref-747)
748. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment B. [↑](#footnote-ref-748)
749. Australian Power and Gas, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, p. 4. [↑](#footnote-ref-749)
750. SP AusNet/Multinet, Response to retailer submissions, 20 July 2012, pp. 40–1. [↑](#footnote-ref-750)
751. Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 6. [↑](#footnote-ref-751)
752. SP AusNet/Multinet, Response to retailer submissions, 20 July 2012, p. 42. [↑](#footnote-ref-752)
753. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A. [↑](#footnote-ref-753)
754. SP AusNet/Multinet, Response to retailer submissions, 20 July 2012, pp. 40–1. [↑](#footnote-ref-754)
755. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A. [↑](#footnote-ref-755)
756. NERR, r. 100 [↑](#footnote-ref-756)
757. Australian Power and Gas, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012. [↑](#footnote-ref-757)
758. SP AusNet/Multinet, Response to retailer submissions, 20 July 2012, p. 43. [↑](#footnote-ref-758)
759. Origin, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 28 June 2012, p. 6; AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A. [↑](#footnote-ref-759)
760. Australian Power and Gas, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012. [↑](#footnote-ref-760)
761. SP AusNet/Multinet, Response to retailer submissions, 20 July 2012, pp. 45–6. [↑](#footnote-ref-761)
762. SP AusNet/Multinet, Response to retailer submissions, 20 July 2012, p. 46. [↑](#footnote-ref-762)
763. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A. [↑](#footnote-ref-763)
764. SP AusNet/Multinet, Response to retailer submissions, 20 July 2012, p. 48. [↑](#footnote-ref-764)
765. AGL, Submission to the AER: SP AusNet, Envestra and Multinet access arrangement proposals, 29 June 2012, Attachment A. [↑](#footnote-ref-765)
766. NGR, r. 105(2). [↑](#footnote-ref-766)
767. NGR, r. 48(1)(f). [↑](#footnote-ref-767)
768. NGR, r. 105(2). [↑](#footnote-ref-768)
769. SP AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.7. [↑](#footnote-ref-769)
770. These are contained in Part 19 of the NGR. [↑](#footnote-ref-770)
771. This model is sometimes referred to as a contract carriage model. [↑](#footnote-ref-771)
772. 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-772)
773. In accordance with the rules in Part 19 of the NGR. [↑](#footnote-ref-773)
774. 48 NGL, s. 2. [↑](#footnote-ref-774)
775. NGR, r. 103(1)(b). Clause 14.2 of the Regulation Information Notice issued by the AER to SP AusNet on the 13 February 2012, notified SP AusNet that its access arrangement proposal must provide details of its queuing arrangements. [↑](#footnote-ref-775)
776. NGR, 103(2). [↑](#footnote-ref-776)
777. 51 SP AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.5. [↑](#footnote-ref-777)
778. 52 NGR, r. 104(1). [↑](#footnote-ref-778)
779. 53 NGR, r. 104(2). [↑](#footnote-ref-779)
780. 54 NGR, r. 48(1)(g). [↑](#footnote-ref-780)
781. NGR, r. 104(1). [↑](#footnote-ref-781)
782. 56 NGR, r. 104(2). [↑](#footnote-ref-782)
783. 57 SP AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.6.1. [↑](#footnote-ref-783)
784. 58 For example: AER, Jemena Gas Network draft decision, February 2010, pp. 348–350; AER, ActewAGL draft decision, November 2009, pp. 185–186; AER, Country Energy draft decision, November 2009, pp. 140–141. Envestra Ltd Access arrangement proposal for the SA gas network 1 July 2011–30 June 2016, draft decision, June 2011, pp. 241–245. [↑](#footnote-ref-784)
785. NGL, s. 23. [↑](#footnote-ref-785)
786. NGL, s. 23. [↑](#footnote-ref-786)
787. NGR, r. 3. [↑](#footnote-ref-787)
788. NGR, r. 48(h). [↑](#footnote-ref-788)
789. NGR, r. 106(1). [↑](#footnote-ref-789)
790. NGR, r. 106(2). [↑](#footnote-ref-790)
791. AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.8.1. [↑](#footnote-ref-791)
792. SP AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.8.2. [↑](#footnote-ref-792)
793. SP AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.8.3. [↑](#footnote-ref-793)
794. NGR, r. 106(1) [↑](#footnote-ref-794)
795. SP AusNet, Access arrangement information, 30 March 2012, p. 251. [↑](#footnote-ref-795)
796. NGR, r. 50. [↑](#footnote-ref-796)
797. NGR, r. 50(2). [↑](#footnote-ref-797)
798. NGR, r. 50(4). [↑](#footnote-ref-798)
799. SP AusNet, Access arrangement proposal: Part A, 30 March 2012, clause 5.9. [↑](#footnote-ref-799)