

# DRAFT DECISION Australian Gas Networks Victoria and Albury gas access arrangement 2018 to 2022

# Attachment 14 – Other incentive schemes

June 2017



#### © Commonwealth of Australia 2017

This work is copyright. In addition to any use permitted under the Copyright Act 1968, all material contained within this work is provided under a Creative Commons Attributions 3.0 Australia licence, with the exception of:

- the Commonwealth Coat of Arms
- the ACCC and AER logos
- any illustration, diagram, photograph or graphic over which the Australian Competition and Consumer Commission does not hold copyright, but which may be part of or contained within this publication. The details of the relevant licence conditions are available on the Creative Commons website, as is the full legal code for the CC BY 3.0 AU licence.

Requests and inquiries concerning reproduction and rights should be addressed to the:

Director, Corporate Communications
Australian Competition and Consumer Commission
GPO Box 4141, Canberra ACT 2601

or publishing.unit@accc.gov.au.

Inquiries about this publication should be addressed to:

Australian Energy Regulator GPO Box 520 Melbourne Vic 3001

Tel: 1300 585 165

Email: <u>AERInquiry@aer.gov.au</u>

# **Note**

This attachment forms part of the AER's draft decision on the access arrangement for AGN's Victoria and Albury gas distribution networks for 2018-22. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 - Services covered by the access arrangement

Attachment 2 - Capital base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency carryover mechanism

Attachment 10 - Reference tariff setting

Attachment 11 - Reference tariff variation mechanism

Attachment 12 - Non-tariff components

Attachment 13 - Demand

Attachment 14 - Other incentive schemes

# **Contents**

No	te			14-2
Со	ntents			14-3
Sh	ortened	forr	ns	14-4
14	Other in	14-5		
	14.1	Dra	ıft decision	14-5
	14.2	AE	R Assessment approach	14-5
	14.2	2.1	Interrelationships	14-6
	14.3	Cap	oital Expenditure Sharing Scheme	14-6
	14.3.1		AGN's proposal	14-6
	14.3	3.2	Reasons for draft decision	14-10
	14.4	Net	work Innovation Scheme	14-14
	14.4.1		AGN's proposal	14-14
	14.4.2		Reasons for draft decision	14-15
	14.5	Rev	/isions	14-17

# **Shortened forms**

Shortened form	Extended form
AER	Australian Energy Regulator
ATO	Australian Tax Office
capex	capital expenditure
CAPM	capital asset pricing model
CESS	Capital Expenditure Sharing Scheme
CPI	consumer price index
DRP	debt risk premium
ECM	(Opex) Efficiency Carryover Mechanism
ERP	equity risk premium
Expenditure Guideline	Expenditure Forecast Assessment Guideline
gamma	Value of Imputation Credits
MRP	market risk premium
NGL	National Gas Law
NGO	national gas objective
NGR	National Gas Rules
NPV	net present value
opex	operating expenditure
PTRM	post-tax revenue model
RBA	Reserve Bank of Australia
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
STTM	Short Term Trading Market
TAB	Tax asset base
UAFG	Unaccounted for gas
WACC	weighted average cost of capital
WPI	Wage Price Index

# 14 Other incentive schemes

#### 14.1 Draft decision

AGN proposed two new incentive schemes to apply for the 2018-22 access arrangement period: a Capital Expenditure Sharing Scheme (CESS) and a Network Innovation Scheme (NIS). In this attachment we set out our reasoning and draft decision on these proposed schemes.

Our draft decision accepts the introduction of a CESS for AGN. We consider a CESS could lead to benefits for consumers, particularly in limiting the growth of the capital base by providing a greater incentive for service providers to incur only efficient capex. We are also of the view that the potential risk that increased incentives could lead to a reduction in network service standards can be mitigated by making a CESS payment contingent upon maintaining current service standards. This is done through the use of a network health index and a deferral mechanism.

Our draft decision does not accept the introduction of a NIS. We consider the current framework provides sufficient opportunity to invest in innovation while allowing businesses to retain any efficiency benefits, particularly with the addition of a CESS as discussed above.

# 14.2 AER Assessment approach

A full access arrangement may include (or we may require it to include) one or more incentive mechanisms to encourage efficiency in the provision of services by the service provider. Incentive mechanisms may provide for carrying over increments for efficiency gains, or decrements for efficiency losses, from one access arrangement period into the next. An incentive mechanism must be consistent with the revenue and pricing principles.

We consider the following revenue and pricing principle is most relevant for assessing AGN's proposed incentives:

A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides.

The economic efficiency that should be promoted includes—

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

<sup>&</sup>lt;sup>1</sup> NGR, r.98(1)

<sup>&</sup>lt;sup>2</sup> NGR, r.98(2)

<sup>&</sup>lt;sup>3</sup> NGR, r.98(3)

(c) the efficient use of the pipeline.4

Under the NGR we have full discretion in our decision as to whether to approve the introduction of an incentive scheme.

# 14.2.1 Interrelationships

The incentive schemes AGN proposed relate to various areas of the business covered by the 2018–22 access arrangement.<sup>5</sup> For example, introduction of a CESS would affect the size of the capital base and may alter the balance of investment signals between capital expenditure (capex) and operating expenditure (opex). Similarly, introduction of a NIS may alter AGN's approach to capex and opex investment. We aim to incentivise service providers such as AGN to make efficient decisions on when and what type of expenditure to incur, and to balance expenditure efficiencies with service standards. We discuss these interrelationships where relevant as part of our reasons below and in other attachments to our draft decision.

# 14.3 Capital Expenditure Sharing Scheme

# 14.3.1 AGN's proposal

AGN proposed the introduction of a CESS for the 2018–22 access arrangement period. AGN noted the following benefits of a CESS identified by the Australian Energy Market Commission (AEMC):

- it encourages appropriate network investment,
- it encourages network service providers to look for efficiencies,
- it provides an incentive for network service providers to reveal their efficient costs, and
- it provides a continuous incentive so that the incentive power is the same no matter in which year of the regulatory period investment is made.

AGN undertook multiple steps to arrive at its current CESS. Specifically AGN:

- with Multinet and AusNet Services, engaged Farrier Swier Consulting (FSC) to design a capex incentive scheme for gas distribution. This included a lengthy consultation process with various stakeholders.
- with AusNet Services, proposed a CESS in their 2018–22 Victorian GAAR initial proposals based on the outcomes of FSC's consultation process.
- with AusNet Services, revised its CESS proposal based on our feedback.

<sup>&</sup>lt;sup>4</sup> NGL, s. 24(3)

NGL, S. 24(3

Related schemes are the efficiency carryover mechanism for opex and the Network Innovation Scheme.

<sup>&</sup>lt;sup>6</sup> AGN, Final Plan - Access Arrangement for our Victorian and Albury natural gas distribution networks 1 January 2018 - 31 December 2022, December 2016, p. 132.

We discuss each of these steps in detail below.

# **Consultation process**

AGN undertook a consultation process with its stakeholders to explore amendments to incentive schemes prior to submitting its 2018–22 access arrangement proposal together with the other Victorian gas distribution businesses.

The businesses engaged FSC to facilitate the consultation process which included an issues paper exploring potential changes to the incentive mechanisms for the 2018–22 access arrangement period<sup>7</sup> and a stakeholder forum with representatives from consumer advocates, retailers, the AEMC, Energy Networks Australia, gas distributors and the AER attending.

Following stakeholder submissions to the issues paper, FSC released a findings report on 23 September 2016.<sup>8</sup> Building on the outcomes of the consultation process, on 15 December 2016 FSC published a report recommending a CESS for AGN and AusNet Services for the 2018–22 access arrangement period.

On 13 December 2016, the AER wrote to stakeholders that were involved in the consultation process and provided an information paper which outlined the issues the AER considered important in deciding whether to implement a CESS.<sup>9</sup>

# **Initial proposal**

In line with FSC's recommendations, AGN proposed a CESS consistent with the electricity transmission and distribution CESS. <sup>10</sup> However, in recognition that there is no service quality scheme like the STPIS in electricity, CESS payments would be contingent on maintaining current service standards. If service standards were to decline, then AGN would receive a reduced CESS reward or have the payments removed entirely.

To measure service standards, AGN included the following network health index measures:

AGN, Final Plan Attachment 11.1, Issues paper, Incentive mechanisms for the Victorian Gas Distribution Businesses, 2018 to 2022 Gas Access Arrangement Review, Report by Farrier Swier Consulting, 10 June 2016.

AGN, Final Plan Attachment 11.3, Findings Report, Victorian Gas Distribution Businesses' consultation on incentive mechanisms, 2018 to 2022 Gas Access Arrangement Review, Report by Farrier Swier Consulting, 23 September 2016.

AER, Capital expenditure sharing scheme for gas distribution network service providers, Information Paper, December 2016, see: <a href="https://www.aer.gov.au/system/files/AER%20-%20Capital%20expenditure%20sharing%20scheme%20for%20gas%20distribution%20network%20service%20providers%20-%20Information%20paper%20-%20December%202016.pdf</a>

AER, Better regulation explanatory statement, capital expenditure incentive guideline for electricity network service providers, November 2013.

- gas leaks measures the number of reported gas leaks that require corrective works.
- water in mains measures the number of instances of water seeping into the network through degraded pipe assets.
- unplanned system average interruption duration index (SAIDI) measures the average duration of unplanned service disruptions.

To determine the overall health of the network, FSC created a network health index by applying an equal weight to each of the network health measures and setting the target performance level based on the historical average performance levels from 2012 to 2016.

The businesses can only receive a full CESS payment if the overall index does not drop below 80 per cent of the target performance level. Once the index drops below 80 per cent, CESS rewards would decrease until the index reaches 60 per cent when CESS rewards would no longer be available.

# **Revised proposal on CESS**

After an initial assessment of AGN's proposal we raised concerns about the choice of network health index measures and the threshold level of possible deterioration of the network before CESS rewards could be reduced.

We had the following concerns regarding the network health measures:

- Gas leaks are not homogenous and different types of gas leaks could affect the
  network to varying degrees. For example, leaks on mains have potentially greater
  safety consequences than leaks on meters. Meanwhile, leaks on meters are easier
  to address than leaks on mains. A single leak measure may provide an incentive to
  address easier to repair leaks than the ones with the greatest impact on safety.
- Water in mains is a weather dependent measure and may not accurately reflect the
  underlying health of the network. Further, water in mains is only an issue for cast
  iron mains which is not a long term network health issue as AGN are specifically
  targeting cast iron mains as part of their respective mains replacement programs.
- We also consider the frequency of interruptions rather than the duration of interruptions is a better measure of underlying asset health because the duration is more strongly linked to opex meanwhile the occurrence of an interruption better reflects the condition of the network's assets.

We also considered network health between 60 to 80 per cent of average levels over the last five years is not consistent with the goal of removing any CESS rewards if the network's health deteriorates. This is because the network health could deteriorate by up to 20 per cent and the businesses could still receive a full CESS payment.

We provided this feedback to AGN to allow them adequate time to address our issues. We also encouraged AGN to explore whether more network health measures could be applicable.

Our consultant Zincara identified similar concerns regarding the network health measures.<sup>11</sup>

In response to our feedback, AGN provided a joint revised proposal for a CESS with AusNet Services that revised the network health measures and thresholds before CESS rewards could be reduced.<sup>12</sup>

The revised CESS included the following measures:

- · Leaks on mains
- Leaks on services
- Leaks on meters
- System average interruption frequency index (SAIFI), and
- System average interruption duration index (SAIDI).

The businesses also revised the weights so that SAIFI and SAIDI represented 50 per cent of the network health index; the remaining fifty per cent was weighted by AGN's capital base proportion for those assets.<sup>13</sup>

AGN and AusNet Services also revised the contingent payments threshold from 80–60 per cent to 100–80 per cent. This means that if there is any deterioration in the network health index, then the businesses would no longer receive its full CESS reward. However, the businesses could still receive a reduced CESS reward up until the network deteriorated by more than 20 per cent. AGN considered the thresholds should take into account the historical variation in performance of the chosen measures around the average.<sup>14</sup>

To account for this, AGN calculated the standard deviation in the historical data for each network health measure and used the standard deviation to calculate confidence bounds around the target performance.<sup>15</sup>

AusNet Services and AGN, Joint submission on a revised Contingent Capital Expenditure Sharing Scheme for Australian Gas Networks and AusNet Services gas distribution networks for the 2018–22 access arrangement period, 31 March 2017.

<sup>&</sup>lt;sup>11</sup> Zincara, AER Access Arrangement 2017 – Capital Efficiency Sharing Scheme, June 2017, p. 4, 5.

AusNet Services and AGN, Joint submission on a revised Contingent Capital Expenditure Sharing Scheme for Australian Gas Networks and AusNet Services gas distribution networks for the 2018–22 access arrangement period, 31 March 2017, p. 9.

AusNet Services and AGN, Joint submission on a revised Contingent Capital Expenditure Sharing Scheme for Australian Gas Networks and AusNet Services gas distribution networks for the 2018–22 access arrangement period, 31 March 2017, p. 9.

AusNet Services and AGN, Joint submission on a revised Contingent Capital Expenditure Sharing Scheme for Australian Gas Networks and AusNet Services gas distribution networks for the 2018–22 access arrangement period, 31 March 2017, p. 11.

#### 14.3.2 Reasons for draft decision

In reaching our draft decision to implement a CESS for AGN we had regard to:

- the potential benefits and risks of the CESS, and
- how AGN's proposed CESS mitigates these risks.

We note that it is not possible to identify whether the CESS will definitively result in consumers being better off. This is because there is no counterfactual outcome to compare a businesses' behaviour with a CESS relative to its behaviour without a CESS.

We note that all stakeholders that have submitted to the consultation process prior to the current review have noted the potential benefits of a CESS. However, some stakeholders have raised concerns that the potential benefits to consumers could be offset through a reduction in capex that leads to a decline in service standards.

In the sections below we explore the benefits of a CESS for gas distribution and what measures can be used to mitigate the risk of a decline in service standards.

#### Benefits of a CESS

The benefits of a CESS are that a business would incur only efficient capex by:

- smoothing capex incentives throughout the regulatory period
- reducing capital base growth
- addressing the imbalance in the incentives applicable to decisions about whether to undertake capex or opex, particularly toward the end of the period.

Each of these benefits is described further below.

#### Smoothing incentive throughout the access arrangement period

The CESS provides a greater incentive for a service provider to incur efficient capex throughout an access arrangement period. Without a CESS, incentives to incur efficient capex decline throughout an access arrangement period.

Capex might be less efficient if service providers skew their capex towards the end of the access arrangement period, where unnecessary peaks and troughs in an investment program can result in higher costs than a more stable work program.

#### Reduced growth in the capital base

Under our current regulatory framework, if a service provider spends less on capex than forecast by the AER, it will retain benefits of financing the forecast capex during the access arrangement period. This is the service provider's reward for making efficiency improvements. Consumers will then benefit after the end of the period when the capital base is rolled forward only to the value of the lower actual capex spend rather than the higher allowed value. This leads to lower reference tariffs into the future.

However, under this approach, the benefits to a service provider of underspending a given amount of capex are progressively less in each year during the access arrangement period. For instance, if a service provider underspends in the first year of a five year access arrangement period, it will not lead to a lower capital base until four and a half years later when we roll forward the capital base. <sup>16</sup> If, on the other hand, the service provider underspends in the middle of the final year of a five year access arrangement period, it will lead to a lower capital base half a year later when we roll forward the capital base. As the benefits of underspending to a service provider are smaller as the access arrangement period progresses, we consider a service provider's incentives for efficient capex decline over the access arrangement period. The CESS addresses this decline in incentives for efficient capex.

We also note that gas consumption faces an uncertain future. The Australian Energy Market Operator (AEMO) considered the future of gas is at a crossroad. AEMO has forecast overall gas consumption will remain flat over the next 20 years. Although the number of residential customer connections is increasing, usage per customer is decreasing. AEMO also noted that retail prices have been rising steadily since 2005 largely driven by increasing network costs.<sup>17</sup>

As we roll new capex into the capital base it has a long term effect on customer tariffs. Incentivising efficient capex has long term implications because the asset life of new capex typically spans several access arrangement periods.

In relation to this, the Consumer Challenge Panel (CCP11) noted that the Victorian gas distributors forecast increases in their capital bases over the next five years. <sup>18</sup> CCP11 also considered that:

- the efficiency of capex, and by extension the efficiency of the capital base, is of critical importance to consumers, and
- a well-designed CESS provides one mechanism for driving improvements in capex efficiency which can benefit consumers in the long term through downward pressure on capital base levels.

We note that AGN's capital base has grown significantly over the last two access arrangement periods. AGN's capital base has increased by 55 per cent from \$1,111 million (\$2017) in 2008 to a forecast of \$1,727 million in 2022.

To put this growth into perspective we have compared the capital base growth rate to growth in customer numbers and gas consumption over the same period. AGN's capital base has increased at a greater rate than both the growth in its customer numbers and gas consumption per customer.

We assume capex is incurred on average in the middle of each year.

AEMO, National gas forecasting report for eastern and south-eastern Australian, December 2016, p. 3, 26

Consumer Challenge Panel (CCP11), Response to proposals from AGN, AusNet and Multinet for the 2018-22 Access Arrangements, 3 March 2017, p. 65.

We consider incentives play an important role in limiting the growth of the capital base for efficient new capex because a CESS provides a greater incentive for service providers to incur only efficient capex.

#### Balanced incentives

Currently AGN is subject to an efficiency carryover mechanism for operating expenditure (opex). The declining incentive for efficient capex over the access arrangement period could distort decisions about whether to undertake capex or opex – for instance, in year five the incentives for efficient opex are currently higher than the incentives for efficient capex. Thus, the service provider could benefit from spending on capex instead of opex even if it leads to overspending on capex.

#### Mitigating the risks around implementing a CESS

While a CESS will increase the incentives for service providers to seek capex savings, service providers could achieve the savings through reductions in service standards rather than through efficiency gains.

#### The AEMC noted:

The Commission noted one potential problem with capex sharing schemes is that it can be difficult to identify whether reductions in capex are from efficiency gains or inefficient deferral. A capex sharing scheme should not encourage actions that would later lead to degradation of network quality and consequent reductions in service quality.<sup>19</sup>

In our Better Regulation Incentive Guidelines, we recognised that under a CESS, a service provider will receive a greater financial reward from reducing capex in the final years of an access arrangement period. This means a service provider has a greater incentive to make efficient improvements in capex in these years. It will also have a greater incentive to defer capex from one access arrangement period to the next.

Both the Consumer Utilities Advocacy Centre and CCP11 expressed concern around the increase in the incentive to defer capex and the potential consequences of deferral on service standards.<sup>20</sup>

Capex deferral has been observed in past incentive schemes. In our 2012 Victorian gas access arrangement review, we removed the Essential Services Commission's

AEMC, Final position paper – National electricity amendment (economic regulation of network service providers) Rule 2012 and National gas amendment (price and revenue regulation of gas services) Rule 2012, 15 November 2012, p. 121

Consumer Challenge Panel (CCP11), Response to proposals from AGN, AusNet and Multinet for the 2018-22 Access Arrangements, 3 March 2017, p. 64, 66; Consumer Utilities Advocacy Centre, Incentive Mechanisms position paper, 3 August 2016 (Submission to the joint Victorian Gas Distribution Businesses' consultation on incentive mechanisms: https://www.australiangasnetworks.com.au/our-business/have-your-say/insights-and-opinions).

capex efficiency carry over mechanism for each of the Victorian distribution businesses for the following reasons:

- The mechanism provided inappropriate incentives to inefficiently defer capex that is not volume adjusted, and
- The lack of an adequate service standard incentive as a counter balance leads to the potential for under-investment and over-utilisation of the pipeline.<sup>21</sup>

We note that the proposed CESS mechanism for the 2018–22 access arrangement period is different to the one previously adopted in gas distribution as it does not have a volumetric adjustment. However, as discussed below; it does have other built-in mechanisms to address a reduction in capex that leads to a decline in service standards.

We have managed the risk that a CESS may lead to a reduction in service standards with a two-fold approach, by including:

- a contingency for any material reduction in the health of the network, and
- a deferral mechanism in the calculation of the CESS payment.

AGN's revised proposal for a CESS addresses concerns around the effects of capex deferral on network health. As noted above, AGN revised its network health measures and proposed to no longer receive a full CESS payment if network health declines.

We consider the proposed network health measures represent the best measures currently available. These measures have been identified by AGN and our consultant Zincara as key network health measures where robust data is already being collected.

Our CESS in electricity allows us to apply an adjustment to the CESS payments where a service provider has deferred capex in the current period and:

- the amount of the deferred capex in the current period is material,
- the amount of the estimated underspend in capex in the current period is material, and
- total approved forecast capex in the next period is materially higher than it is likely to have been if a material amount of capex was not deferred in the current period.<sup>22</sup>

We have adopted these provisions for the gas CESS. We consider our two fold approach will mitigate the risk of declining service standards related to the CESS. We can also make amendments to the CESS mechanism in the 2023–27 access arrangement period to address any issues we identify in AGN's behaviour.

AER, Better regulation explanatory statement, capital expenditure incentive guideline for electricity network service providers, November 2013, p. 32.

AER, Access arrangement final decision Envestra Ltd 2013–17 part 2: attachments, March 2013, p. 290.

We note, in general, there was broad support for a CESS with a counterbalancing network health measure. <sup>23</sup> However, stakeholders raised concerns about the incentive for businesses to upwardly bias their forecasts when the power of an incentive increases. <sup>24</sup>

Although a CESS may increase the incentive for a business to upwardly bias its proposed capex, we note that this incentive already exists. We will continue to scrutinise proposals drawing on consultancy reviews and past capex spending patterns. The CESS should help reveal efficient capex spending levels, for example connection and mains replacement costs. We will draw on this data in making future capex forecasts.

Our decision to apply the CESS follows on from our extensive consultation. We will continue to consult on its operation, monitor the outcomes and address any issues that may arise at the time of the next access arrangement review. For this reason, we do not approve AGN's proposal to apply a fixed principle for 10 years in relation to the CESS.<sup>25</sup>

#### 14.4 Network Innovation Scheme

AGN proposed the introduction of a Network Innovation Scheme (NIS) to apply for the 2018–22 access arrangement period.

# 14.4.1 AGN's proposal

AGN proposed a NIS for funding of small scale operational expenditure. The proposed additional expenditure is targeted at managing peak demand on the network instead of investing in network augmentation.

AGN submits that the periodic review process that a regulated business faces does not allow a business to retain efficiencies resulting from the cost of any innovative-related expenditure. Therefore, AGN argues that innovation is limited for gas businesses and that a scheme that facilitates investment in innovation should apply to gas distributors.<sup>26</sup>

AGN's proposed NIS is designed as follows:

Origin Energy, Victorian Gas Access Arrangement Review 2018–22 response to gas distribution business' proposals, 17 February 2017, p. 5. Energy Networks Australia, Australian Gas Networks Access Arrangement proposal 2018–22 - Energy Networks Australia's comments, 3 March 2017, p. 2. Jemena Gas Networks, Submission on 2018-22 Victorian gas distribution access arrangement proposals, 2 March 2017, p. 1 Consumer Challenge Panel (CCP11), Response to proposals from AGN, AusNet and Multinet for the 2018-22 Access Arrangements, 3 March 2017, p. 65.

Consumer Challenge Panel (CCP11), Response to proposals from AGN, AusNet and Multinet for the 2018-22 Access Arrangements, 3 March 2017, p. 64, 66.

AGN, Access Arrangement for our Victorian and Albury natural gas distribution networks 1 January 2018 to 31 December 2022, December 2016, p. 18.

AGN, Final Plan - Access Arrangement for our Victorian and Albury natural gas distribution networks 1 January 2018 - 22, 31 December 2022, December 2016, p. 137.

- AGN would apply to the AER for projects that qualify for a NIS, having regard to pre-determined criteria.
- Expenditure incurred may be recovered if the expenditure amounts are lower than \$1 million per year and meets the pre-determined criteria. However, allowable NIS expenditure could be above \$1 million if it has been deemed by the AER to meet the NIS criteria.<sup>27</sup>
- Approved expenditure would be excluded from any other incentive framework, such as the opex efficiency carryover mechanism.
- AGN would recover the amounts spent through the annual Reference Tariff Variation amounts.

Any funding under the NIS must have the potential to have a direct impact on AGN's operations and would involve research, development or the ability to demonstrate at least one of the following:

- a piece of new equipment, such as control and communications systems and software.
- a novel arrangement or application of existing network infrastructure,
- a novel operational practice directly related to the operation or safety of the network or improvement in customer service,
- · a novel commercial arrangement, or
- a reduction to the carbon intensity of the gas distributed by the network.

#### It must also:

 have the potential to increase the learning that can be applied to the industry overall

 have potential to deliver net financial benefits and/or improvements in customer service.

Lastly, AGN must make any intellectual property available to third parties, so that the benefits are shared across the industry.<sup>28</sup>

#### 14.4.2 Reasons for draft decision

We understand that, in general, regulated monopolistic businesses face a reduced incentive to innovate when compared to competitive businesses. For a regulated network business, any savings resulting from innovation in one period may lead to a lower revenue allowance in the next period. Therefore, businesses may avoid

AGN, Final Plan - Access Arrangement for our Victorian and Albury natural gas distribution networks 1 January 2018 - 31 December 2022, December 2016, p. 138.

AGN, Final Plan - Access Arrangement for our Victorian and Albury natural gas distribution networks 1 January 2018 - 31 December 2022, December 2016, p. 138.

investments that could have a significant social benefit but would ultimately result in decreased revenue allowance in the subsequent period.

While we acknowledge this reduced incentive to innovate, we do not consider that the NIS will encourage efficiency in the provision of services by AGN in the long term interests of consumers for the following reasons:

- Consumers bear the cost of investment and therefore take 100 per cent of the risk that the innovation project will fail.
- It is not clear how the benefits of the innovation projects will be shared between AGN and its customers.
- The proposed NIS is not targeted at a specific social problem (such as emissions reduction).

There are also significant disadvantages and costs with implementing the proposed NIS including:

- transaction and enforcement costs associated with the introduction and implementation of an innovation scheme.
- higher prices for consumers in the short-run, with no guaranteed efficiency gains in the long-term.

Stakeholders were generally supportive of encouraging innovation in light of the potential for rapid changes in the energy sector. However, CCP11 was concerned as to whether an innovation scheme is necessary in addition to a CESS and an opex efficiency carryover mechanism. We agree that these schemes are compounding and should be considered together.

On balance, we do not believe that a NIS will encourage efficiency in the provision of services by AGN in the long term interests of consumers. We consider the current framework provides sufficient opportunity to invest in innovation while allowing businesses to retain any efficiency benefits, particularly with the addition of a CESS as discussed above.

14-16 Attachment 14 - Other incentive schemes | Draft decision - AGN Victoria and Albury gas access arrangement 2018–22

Jemena Gas Networks, Submission on 2018-22 Victorian gas distribution access arrangement proposals, 2 March 2017, p. 1; Energy Network Australia, Submission on Australian Gas Networks (Vic and Albury) Access Arrangement Proposal 2018-22, pp 1-2; Origin Energy, Submission to the Victorian gas access arrangement review 2018-22, Response to gas distribution businesses' proposals, 10 March 2017, p. 5; and ATCO Gas Australia, Submission to Victorian Gas Networks AGN and AusNet Services Access Arrangement 2018-22, 3 March 2017, p.3.

Consumer Challenge Panel (CCP11), Response to proposals from AGN, AusNet and Multinet for the 2018-22 Access Arrangements, 3 March 2017, p. 11.

# 14.5 Revisions

We require the following revisions to make the access arrangement proposal acceptable:

	Remove clause 5.2 (I) from the proposed access arrangement.
Revision 14.1:	Replace with a clause giving effect to the deferral mechanism described in Better Regulation Capital Expenditure Incentive Guideline for Electricity Network Service Providers November 2013.
Revision 14.2:	Remove clause 4.7 (Fixed Principle D) from the proposed access arrangement.
Revision 14.3:	Remove the NIS from the proposed access arrangement.