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Consumer Challenge Panel

CCP Sub-Panel No. CCP11

3 March 2017

To: Australian Energy Regulator (AER) Board

Ct: Lynley Jorgensen and Adam Young, Co-ordination Directors, Victorian Gas Access Arrangement Review (GAAR)

Dear Paula,

Australian Gas Networks (AGN), AusNet Services and Multinet

Please find attached our advice in relation to the above Access Arrangement Review.

Kind regards,

Chris Fitz-Nead

Consumer
Challenge
Panel

Advice to the Australian Energy Regulator (AER)

Consumer Challenge Panel Sub-Panel CCP11

Response to proposals from AGN, AusNet and Multinet for a revenue reset/access arrangement for the period 2018 to 2022

Sub-Panel CCP11

David Prins

Bev Hughson

Robyn Robinson

Chris Fitz-Nead

3 March 2017

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EXECUTIVE SUMMARY

CCP11 has considered the proposals of AGN, AusNet and Multinet (the Network Service Providers or NSPs) in light of the objective of the CCP which is to:

- advise the AER on whether the network businesses' proposals are in the long term interests of consumers; and,
- advise the AER on the effectiveness of network businesses' engagement activities with their customers and how this is reflected in the development of their proposals.

In this Executive Summary, we summarise the issues of interest to CCP11 and our recommendations.

A. CONSUMER ENGAGEMENT

1. AGN

AGN prepared and executed a comprehensive Stakeholder Engagement Strategy to inform the development of its Victoria and Albury Access Arrangement (AA) 2018-2022 proposal. Engagement activities commenced in November 2015 and included the establishment of two dedicated reference groups, and the conduct of a series of customer and stakeholder workshops.

CCP11 welcomed the care taken by AGN in the Final Plan to lay out very clearly within each section of its proposal document how stakeholders had been engaged on that topic and how the engagement had informed their approach.

A highlight of AGN's stakeholder engagement program was the release of a Draft Plan on 5 July 2016, 6 months in advance of the date for lodgement of AGN's AA proposal. This was the first time that a gas distributor has released a draft of their entire proposal. We commend AGN for this important initiative.

AGN has stated that 'Our overarching objective is to submit a plan that delivers for customers, is underpinned by effective stakeholder engagement and is capable of being accepted by the AER.'[1]

Overall, CCP11 considers that AGN has clearly met its objective of presenting an Access Arrangement Proposal which is underpinned by effective stakeholder engagement.

AGN has now established a solid foundation and track record for effective stakeholder engagement. The challenge ahead is for AGN to consider opportunities to engage with stakeholders at the 'involve' and 'collaborate' levels of the IAP2's Public Participation Spectrum,[2] particularly focusing on the 'Promise to the Public' dimension of the spectrum.

[1] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Plan Highlights, page iv

[2] See https://www.iap2.org.au

2. AusNet

AusNet developed and implemented a consumer engagement program that has sought to inform the shaping of its Access Arrangement proposal for 2018 to 2022. AusNet has followed and built on its experience in 2014-15 with consumer engagement in the Electricity Distribution Price Review for AusNet's Victorian electricity distribution network.

The consumer engagement program was well planned. Beginning in early 2016, it involved a reasonably diverse range of consumer interests and employed a range of processes to elicit consumer sentiment. However, there are some concerns with how AusNet appears to have engaged with consumers and it could have more clearly demonstrated how its consumers' sentiments were incorporated into its Access Arrangement proposal. The process would have been better had AusNet consulted on the detail of its proposal or a draft of it. AusNet has established a permanent Customer Consultative Committee which meets regularly and is a foundation for further improvement of AusNet's engagement with it consumers.

3. Multinet

Multinet undertook various stakeholder engagement activities to inform its proposals in its AAI, including setting up a Gas Reference Group and holding focus groups for residential and small business customers.

Due to the late establishment of CCP11, CCP11 members were not able to engage with Multinet at an early stage, and were not able to attend or observe any of the consumer engagement activities that were held before CCP11 was established.

CCP11 commends Multinet on its consumer / stakeholder engagement activities, which have sought to involve stakeholders in the regulatory process, informing them of Multinet's plans and listening to and acting on stakeholder input. The comments we got from consumer representatives who engaged with Multinet were generally positive, with some constructive suggestions for improvements in specific areas.

The first AER Consumer Challenge Panel (2013-16) discussed at various times issues that arise when network businesses run focus groups and similar forums for consumers who are not necessarily significantly engaged with the industry. It is important for the businesses to reach out to these consumers, to engage with them, and to take their input into account in their regulatory proposals and in the way they run their business. However, one of the pitfalls is that consumers may inadvertently feed back to the business what the business wanted to hear, because of the way the issues on which feedback is sought are put to them. If this is the case, less weight should be put on the feedback as being the real views of the consumers.

We found some concern in this regard in Multinet's focus groups discussion.

CCP11 believes that rather than just have a single Chapter in the AAI on "What our stakeholders are telling us", it would have been preferable had Multinet included discussion of consumer engagement feedback relevant to various expenditure and other proposals throughout the AAI.

That would have enabled Multinet to provide more detailed information on how consumers' views have been considered at each step of its regulatory proposal.

CCP11 welcomes Multinet's commitment in its AAI to continue to engage with its stakeholders throughout its Access Arrangement review process and during the forthcoming Access Arrangement period.

CCP11 suggests that Multinet should measure the success or otherwise of its engagement activities, and should undertake evaluation and review in accord with the AER's Consumer Engagement Guideline. The learnings should feed into improvements for future consumer engagement. A review of how consumers feel their issues have been addressed in the Access Arrangement proposal would be useful in assessing the effectiveness of the program and for planning for future consumer engagement.

As stated by Multinet:

> *We recognise that best practice engagement should be an integral and on-going part of our operating model. This requires a shift in culture, the introduction of new specialist skills and time to build understanding and trust with an extensive group of stakeholders who have an interest in our services.*[3]

We support these future intentions.

[3] Multinet – 2018 to 2022 Access Arrangement Information, Section 7, Page 21

B. LONG TERM INTEREST OF CONSUMERS

There are several issues in the NSPs' proposals which show or raise the prospect that the proposals are not in the long term interest of consumers. These are addressed in respect of AGN, AusNet and Multinet under the following areas of interest.

1. Demand Forecasts

Demand forecasts in a gas distribution business' regulatory proposal cover forecasts for gas consumption and customer numbers, in the residential, commercial and industrial sectors.

Gas demand forecasts are a key input into determining growth capex and opex forecasts. These are important building blocks in determining the total revenue that a business should be able to recover in the coming regulatory period.

Gas demand forecasts are used in setting reference tariffs (prices), as these are determined by dividing total revenue by the demand forecasts for each tariff component.

Of the three distribution businesses, only AGN stated that its methodology for demand forecasts was influenced by or based on consumer engagement. CCP11 is satisfied that the approach to forecasting that has been adopted by AGN is consistent with the feedback that AGN received in its stakeholder engagement.

New connections drive opex and capex forecasts to service new connections. The net new connections drive total customer numbers and hence total energy usage assumptions.

Recommendations:

- CCP11 questions whether the distribution businesses' methodologies adequately allow for decreases in penetration rates in their forecasts of new connections.
- CCP11 emphases the need for network businesses to set out full details of methodologies in their regulatory proposals to enable stakeholders to provide informed submissions, in the AER's formal consultations which are a key component of the regulatory decision making processes.
- CCP11 recommends that the AER should consider the businesses' forecasts for consumption per commercial customer in 2017 and 2018 in more detail to determine whether they are appropriate forecasts to underlie the forecast revenue requirements of the businesses.
- CCP11 advises the AER to check what assumptions have been made regarding forecast energy usage or the number of customers expected to be connected as part of the Victorian Government's Energy for the Regions Program, and to confirm the appropriateness of those forecasts.
- CCP11 advises the AER to check the estimates of incremental demand that result from the appliance rebate schemes that the distribution businesses are proposing.

2. Capital Expenditure

Proposed capital expenditure by the three NSPs is driving material increases in their RABs. The scale and pace of mains replacement programs and the unit rates being proposed for this work are concerning. Consideration needs to be given as to whether the right balance has been struck between safety and reliability (undoubtedly a key concern for consumers) and the interest of consumers in mains replacement being undertaking optimally. The scale of projects may be importing unnecessary project risk and creating upward pressure on costs. The steeply escalating unit rates for this work need to be examined.

There are several instances where the NSPs propose changing depreciation methods and shortening assets lives. CCP11 believes that the impacts on consumers of these proposals needs to be assessed and if material, consideration given to options to mitigate the impact.

Recommendations:

- The AER should consider whether the scale of each NSP's mains replacement program reflects a reasonable and balanced assessment of the risk and reliability issues. In the case of Multinet, its past conduct in delaying its mains replacement program suggests that there may be further room for a more measured approach. The step up in scale of its 2018 to 2022 program from the size of the program in current period (where it incurred overruns on the cost allowed by the AER), should give pause to consider whether Multinet's proposed program is too large and at risk of continuing cost overrun.
- The AER should investigate the steep escalation of unit rates for mains replacement work seen in the NSPs' proposals. The sheer scale of the mains replacement planned across all three networks needs to be considered as a possible factor in the rapid escalation in unit rates for these programs. The AER should thoroughly review the proposed unit rates including comparing forecast cost among the three NSPs and benchmarking to similar work in other gas networks.
- The AER should examine the impact of the proposed change in the methodology for depreciation of assets from a weighted average life of an asset class to year by year tracking and if there is a material adverse impact on consumers through higher revenue requirement by the NSPs, consider rejecting the proposal.
- The impacts of proposals by AusNet and Multinet to reduce the life of meters (from 20 and 30 years respectively to 15 years) should be assessed by the AER and if there is a material adverse impact on consumers through higher revenue requirement by the NSPs, consider how to mitigate this including rejecting it.
- Multinet's proposed change to building lives from 50 to 35 years should be benchmarked to other NSPs and be rejected if, as it appears, it is not consistent with industry practice and the useful life of such assets.

3. Operating Expenditure

Marketing Step Changes

The three gas distribution businesses have proposed a joint marketing campaign over the next AA period with a total forecast expenditure of $50.1 million. We consider that in scope and scale, the proposed joint marketing program involving AGN, AusNet and Multinet and the related expenditure appears to be broadly similar to and consistent with previously approved programs and expenditures. In our view, however, neither AGN, AusNet nor Multinet has demonstrated that they have the support of their customers for the proposed marketing expenditure.

Consistent with the opinions expressed by consumer representatives, the CCP is not yet convinced that such expenditure is prudent.

In regulated gas network businesses in the past, expenditure on marketing has been approved as a step change to be incorporated into base opex and subject to the EBSS for subsequent regulatory periods. We consider that this is not appropriate for expenditure on marketing because of the uncertainties surrounding future marketing programs, and the difficulties forecasting appliance switching rates in future. We suggest that marketing allowances should be excluded from the scope of the EBSS schemes.

Recommendations:

- In making a decision on the proposed marketing step changes, it is recommended that the AER:
  - gives consideration to the level of demonstrated stakeholder support, and
  - assesses whether it is prudent to encourage new customers to connect to the gas network, and existing customers to renew gas appliances, at a time when wholesale gas prices, and hence retail gas prices are predicted to rise substantially.
- Should marketing step changes be approved, the AER should review whether it is appropriate to include marketing expenditure within base opex for subsequent regulatory periods, and whether marketing expenditure should be excluded from the EBSS.
- For consistency, we recommend that that the marketing allowance that is already included in AGN's base opex should be treated in the same way as the new step change requests.

Opex Step Change – Ring-main pigging (AusNet)

AusNet is seeking to include an opex step change for the in-line inspection of part of its gas transmission pipeline in 2021 at a forecast cost of $0.41 million. The pigging operation will be carried out in collaboration with AGN and Multinet who are each owners of portions of the 82km long transmission pipeline system. Neither AGN nor Multinet have sought an opex step change for this project.

Recommendation:

- It is recommended that the AER does not accept the proposed ring-main pigging project as an opex step change.

4. Incentive Schemes

Capital Efficiency Sharing Scheme

AGN and AusNet have proposed the introduction of a new Capital Efficiency Sharing Scheme (CESS). The new scheme, referred to as a Contingent CESS, was developed following a stakeholder engagement program conducted jointly by the three distribution network businesses. The AER participated in that process. Taking account of feedback that 'consumers are not prepared to pay for improvements in reliability', the businesses have proposed an asymmetric scheme whereby a CESS reward is only accessible if specified key network performance targets are met and the CESS reward is not increased if the performance targets are exceeded. There is general stakeholder support for an incentive scheme to promote increased capex efficiency.

In December 2016, the AER released its 'Capital expenditure sharing scheme for gas distribution network service providers – Information Paper' which raises further issues for consideration in the design of a CESS. AGN has committed to working with the AER and stakeholders with a view to finalising a CESS design in the lead up to the draft decision.

CCP11 considers that there is a deficiency in the analysis of scheme designs in that the expected financial impacts for consumers have not been identified. We expect the businesses to identify the range of possible outcomes for consumers and the associated financial impacts as part of the design of any benefit sharing scheme.

Recommendations:

It is recommended that:

- The AER, AGN and AusNet continue working with stakeholders with a view to finalising a Contingent CESS design leading into the Draft Decision.
- Businesses be requested to identify the financial impacts for consumers as part of the design of the proposed Contingent CESS.
- The final form of any new CESS should be subject to a full stakeholder engagement process so that consumers have input on the actual scheme adopted.

Network Innovation Scheme

All three distribution businesses have proposed a form of Network Innovation Scheme (NIS). Although all businesses have based their proposals on Ofgem's network innovation scheme for gas distribution businesses in the UK, the proposals differ in significant respects.

There is general acknowledgement among stakeholders that network innovation promotes the long term interest of consumers. However, concerns remain as to whether the scheme is necessary in addition to an EBSS and a CESS. Further work is required to develop a single NIS suitable for application to Australian gas distribution businesses.

Recommendations:

It is recommended that:

- If a Network Innovation Scheme is considered appropriate, then a single common scheme is adopted for all gas distribution businesses.
- The AER consider whether the proposed Network Innovation Schemes are sufficiently mature to be implemented for the next AA period.
- The final form of any new Network Innovation Scheme should be subject to a full stakeholder engagement process so that consumers have input on the actual scheme adopted.

5. Rate of Return & Inflation

Cost of debt and inflation

CCP11 notes that the rate of return issues regarding the return on debt and inflation are matters still before the Courts.

AusNet and Multinet have adopted a different approach to the return on debt and the estimation of inflation to that adopted in the AER Guideline. At this stage, CCP11 would prefer to postpone discussion on these until the Court processes are reasonably finalised. The AER is intending to publish a paper on the forecasting of inflation in the near future and CCP11 anticipates participating in that process.

However, the evidence provided to date supports the AER's approach on the cost of debt and inflation.

Return on equity

AGN has proposed a return on equity that is consistent with the AER's Guideline.

The networks' proposals for the return on equity for a gas NSP are 6.58 per cent for AGN (based on the AER Guideline approach), 7.3 per cent for AusNet and 8.31 per cent for Multinet. The proposals by AusNet and Multinet will significantly increase the allowed revenue for each of these businesses if approved by the AER.

Both AusNet and Multinet claim that they follow the AER Guideline's approach to the return on equity, using the AER's Sharpe-Lintner CAPM (SL CAPM) as the foundation model, while paying some regard to other measures. However, they both claim that the AER Guideline parameters, such as the equity beta and market risk premium (MRP), were set in 2013 and need to be reviewed.

The increase in the return on equity for AusNet and Multinet arises from the following factors:

- Both AusNet and Multinet propose a MRP of 7.5 per cent, compared to the AER's MRP of 6.5 per cent;
- Multinet proposes an additional uplift (alpha factor) of 1.4 per cent, which Multinet claims compensates for the 'low beta bias' in the SL CAPM; and
- AusNet proposes to adopt an 8 month averaging period for calculating the risk free rate.

CCP11 considers that these proposals vary from the Guideline, and draw the conclusion that the two NSPs have not provided sufficient evidence for the AER to vary from the Guideline parameter values.

Recommendations:

It is recommended that:

- The AER does not accept the increases in the MRP proposed by AusNet and Multinet.

- The AER review the findings of Frontier (2016) which claims that there is growing spread between historical excess returns and DGM results and consider whether this finding challenges the relevance of the DGM in the AER's SL CAPM framework.
- The AER undertake further research into the current trends in conditioning variables and whether they support the claim for a higher MRP.
- The AER does not accept Multinet's proposal for an uplift to the return on equity calculated under the AER's SL CAPM framework to compensate for the claimed low beta bias in the SL CAPM.
- The AER undertake further investigations in response to Multinet's claim that the equity beta has increased since 2014. If the AER's analysis confirms this increase, then assess whether this change represents a shift change or a temporary factor that will return to more normal levels identified by the longer 10 year analysis of the equity beta.
- The AER does not adopt AusNet's proposal to extend the averaging period for the risk free rate to eight months, at this stage.
- The AER undertake further investigations of the risks and benefits of the AusNet's proposal for an extension to the averaging period for the risk free rate. However, it is recommended that this be undertaken as part of the review of the Rate of Return Guideline in 2017-18.

6. Tariffs

Revenue recovery is through tariffs charged providing reference services. Ultimately those are charged to end use customers. Though retailers do not have to pass on the same structures and allocations of network charges to customers, the network charges affect the retailers' costs and therefore feed into customer impacts. From its review of the distribution businesses' tariff proposals, and attendance at forums involving retailers, CCP11 wishes to make the following comments on the tariff proposals.

AGN had in mind initially to align the Victorian and Albury tariffs. However, consumer engagement revealed that consumers did not support this realignment, and on that basis AGN has dropped this proposal. CCP11 supports the decision by AGN to respond to stakeholder engagement.

The Victorian gas distribution tariffs for residential and commercial customers are particularly complex, with many consumption bands. In many cases, retailers do not pass through this complexity. Some retailers have stated their preference for less complexity in the tariffs. We suggest that there may be further opportunity for more discussion of tariff structures to reach a more agreed approach between distributors and retailers.

Multinet has proposed a change from price cap to revenue cap, while AGN and AusNet both choose to retain the existing price cap form of control. Much has been written on the relative merits of price vs revenue caps in electricity and gas networks, which we do not propose to repeat here.

Recommendation:

It is recommended that:

- the AER should consider consistency, as well as the risk assignment between the business and consumers when deciding whether Multinet's request for a revenue cap form of price control should be accepted.

BACKGROUND

- This advice was prepared as agreed between sub-panel CCP11 working on the AGN, AusNet and Multinet (the NSPs) Access Arrangements, and Lynley Jorgensen and Adam Young, Co-ordination Directors for Vic GAAR.
- The NSPs commenced the process of preparation of their access arrangement proposal and the related consumer engagement late in 2015. During 2016 the NSPs undertook a range of consumer engagement activities and processes.
- CCP11 was established in September 2016.
- On 15 and 16 November 2016, CCP11 met in Melbourne with each of the businesses to discuss their consumer engagement processes, the key elements of their proposals (i.e. high-level drivers, priorities, issues and challenges for the business and how these issues were reflected in the proposal), and their key consumer issues.
- CCP11 arranged a forum in Melbourne on 5 December 2016 to meet with consumer representatives. CCP11 invited all parties who had been involved in consumer engagement with each network business in the Vic GAAR process. Three people attended the forum. Separately, members of CCP11 met with other consumer representatives. CCP11 members attended some of the network businesses consumer and retailer engagement sessions. These meetings provided CCP11 with the opportunity to gain some insights on the network businesses consumer engagement processes from the people involved.
- CCP11's involvement in the consumer engagement process was more limited than the Panel would have liked due to the Panel being constituted near the end of the period over which the network businesses had been engaging with consumers.
- On 1 February 2017, CCP11 participated in the Public Forum convened by the AER in Melbourne. This Public Forum was primarily an opportunity for engagement with the network businesses with limited attendance by consumer representatives.
- CCP11 has held regular meetings with the Co-ordination Directors since September 2016.
- Meeting have been held with most of the AER specialist teams involved in the Vic GAAR. These meetings have provided an opportunity for CCP11 to increase their understanding of some of the technical issues involved as well as for the Panel and AER officers to exchange view on issues associated with the Vic GAAR proposals.

ADVICE ON

A. Consumer Engagement

The effectiveness of network businesses' engagement activities with their customers and how this is reflected in the development of the network businesses' proposals

1. AGN

1.1 AGN's Stakeholder Engagement Program

AGN has developed and published an overarching Stakeholder Engagement Strategy which sets out the principles, priorities and approach which guide stakeholder engagement activities for the company across all of its Australian networks, including both regulated and non-regulated networks.[4] The AGN Stakeholder Engagement Strategy closely adheres to the framework and principles outlined in the AER's Consumer Engagement Guideline for Network Service Providers, November 2013 (the Guideline). Within the overarching strategy, AGN has developed region-specific stakeholder engagement strategies to ensure that the approach for engagement is properly targeted to the stakeholders within each region. The first region-specific stakeholder engagement strategy was developed to support AGN's South Australian AA Proposal, which was submitted to the AER in July 2015. Building on the learnings from experience in South Australia, AGN developed the AGN Victoria and Albury Stakeholder Engagement Strategy.[5]

The Victoria and Albury Engagement Strategy includes:

- the establishment of two Reference Groups – the Victorian and Albury Reference Group (VARG), which comprises representatives from a broad cross-section of key community and industry stakeholder groups; and the Retailer Reference Group (RRG), which comprises the retailers operating in Victoria and Albury;
- holding 6 customer workshops in both metropolitan and regional areas – Workshops were held in Albury/Wodonga, Shepparton, Narre Warren and Traralgon and two in Melbourne;
- publication of a Customer Insights Report to reflect feedback from the customer workshops;
- a survey of large users;
- dedicated engagement focused on incentive arrangements (release of an Issues paper, a stakeholder forum, call for submissions) in conjunction with the other two Victorian gas distribution businesses;
- release of a Draft Plan for feedback;
- stakeholder workshops on the draft plan;
- two follow-up customer workshops;
- presentations on the draft plan to two industry bodies; and

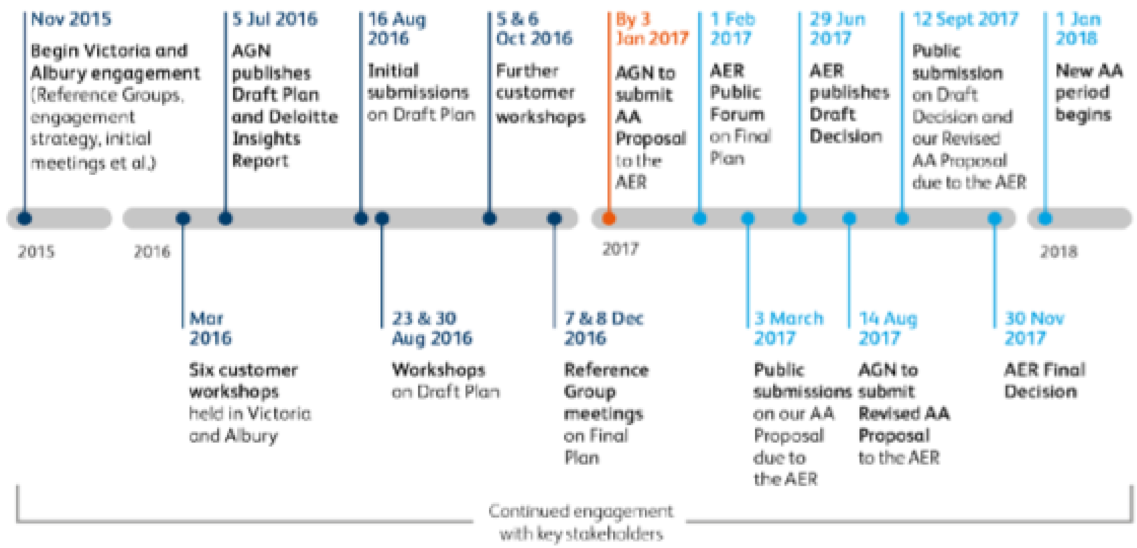
[4] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 5.3

[5] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 5.4

- on-going engagement with Reference Groups and large industrial customers.

The timeline below highlights the key activities and milestones for AGN's stakeholder engagement program.[6]

Figure 1.2: Historical and Future Key Milestones



1.2 Consumer perspectives

In preparing this advice, we consulted with a range of consumer representatives who had interacted with AGN during the development of the AA proposal. In general, their response to the overall AGN engagement program was very positive. A common theme was the recognition of the high level of support for AGN's stakeholder engagement activities from AGN management, including the CEO. Consumer representatives reported that they consider that a statement made by the AGN CEO at a VARG meeting:

> *"I can't think of anywhere I would better be spending my time than here now".*
> *Ben Wilson (CEO, AGN), 7 December 2016*

genuinely reflects the importance and priority placed on the stakeholder engagement program within the company.

Other comments offered by consumer representatives in relation to AGN's engagement program included:

- *The company culture is supportive and open to discussions with consumers;*
- *AGN was proactive in asking reps for their views on key issues. AGN was frank and genuine;*
- *AGN lodging a draft plan is a first in Australia, and is welcomed;*
- *The gas incentives forum was very useful;*

[6] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page vii

- *AGN is above the curve on consumer engagement.*

The independent facilitator of AGN's customer workshops, Deloitte, reported the following feedback from participants in the follow-up workshops:
- "*I felt like my opinions were being recognised and that I was being listened to."*
- *"Great to see how my voice, and the voice of others have been written up in the report, and then used to develop the plan."*

1.3 CCP position

Overall Stakeholder Engagement Program

In its advice to the AER regarding AGN's stakeholder engagement for the South Australian network, CCP8 previously reported:
- *We have found that AGN has implemented a comprehensive Stakeholder Engagement Program in accordance with the CE Guidelines, and has demonstrated a genuine commitment to customer and stakeholder engagement as part of the process of developing the 2016-2021 proposal.*[7]

CCP11 is pleased that AGN has committed to a similar program for its Victorian and Albury networks, and has taken account of learnings from its South Australian program to refine and improve its approach and processes. Evaluation and review of the effectiveness of consumer engagement processes is one of the five key elements of the AER's Guideline, and this has been demonstrated in the AGN approach.

CCP11 was not appointed until October 2016. This meant that AGN's stakeholder engagement activities, having commenced in November 2015, were well advanced before CCP11 members were able to become involved. The CCP's appreciation of AGN's full suite of stakeholder activities would have been enhanced if they had been able to participate as an observer at the customer workshops, early meetings of the reference groups, the gas incentives forum, and feedback workshops on the Draft Plan. As a result, we are unable to provide direct observations on the earlier components of the stakeholder engagement program. For that, we are reliant on a review of the material submitted and feedback from consumer representatives.

Victoria/Albury Reference Group (VARG)

The VARG has a core membership of seven organisations representing a cross-section of key community stakeholder groups and industry representatives. The role of the VARG is to challenge, guide and review the process of developing and implementing the stakeholder engagement program and to provide feedback on AGN's plans.[8] The VARG met on 5 occasions between November 2015 and December 2016. CCP11 attended one of these meetings as an observer.

The meetings were well structured and well run, and attended by senior management staff from AGN. VARG members discussed and provided input on a range of topics including the draft Stakeholder Engagement Strategy, the Victoria/Albury Consolidation Process, AGN's Customer Satisfaction Survey, Customer Workshops, the Customer Insights Report, the Gas Incentives Forum

[7] CCP – Advice to AER from Consumer Challenge Panel sub-panel 8 regarding Australian Gas Networks' (SA) Access Arrangement 2016-2021 Proposal, page 3

[8] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 31

and all elements of the Draft Plan.[9] Reference group members commented that they would have been better able to provide feedback on the Customer Workshops and Customer Insights Report if they had had the opportunity to observe one of the workshops. The reference group appears to have been reasonably effective in meeting the objectives of reviewing the process of developing the stakeholder engagement program and providing feedback on AGN's plans.

Irregular meeting attendance by members possibly detracted from the effectiveness of this group. In planning for the ongoing engagement phase of the Victoria and Albury Stakeholder Engagement Program, AGN may wish to consider strategies to address this issue to improve the continuity and hence quality of the engagement process. Options may include firm forward scheduling of meetings and nomination of delegates to attend meetings if members are unavailable.

It is recognised that there is a small pool of consumer and industry representatives who are available and equipped to take on a role as a reference group/customer advisory group member for a gas or electricity network business. The pressure on these scarce resources could potentially be eased if the Victorian gas network businesses were able to work together to conduct joint meetings or briefings on areas of common interest. A notable example was the jointly run Gas Incentives Forum in July 2016. The businesses could contribute to building up the pool of available representatives by providing programs to increase the knowledge and understanding of the gas industry for interested parties. This would equip a larger number of representatives to participate confidently in the engagement processes.

Retailer Reference Group

It is our understanding that the Retailer Reference Group was very effective in working with AGN on issues including the Access Arrangement, prices and terms and conditions to resolve the majority of matters prior to submission of the Final Plan.

A CCP11 member participated in a telephone conference meeting of the AGN Retailer Reference Group on 8 December 2016. This was not well attended by retailers, because retailers had instead participated in a VARG meeting the previous day and did not see a need to attend this meeting as well.

Customer Workshops

A series of 6 customer workshops involving 78 residential and small business customers from regional and metropolitan areas was held during March 2016 to inform development of AGN's Draft Plan. The workshops were conducted using an external facilitator, Deloitte.

The aim of the workshops was to:

- "get your feedback on your experiences and interactions with us
- To get your thoughts about future investments we are considering
- To understand your needs and priorities as current or potential gas customers"[10]

[9] See minutes of meetings at https://www.australiangasnetworks.com.au/our-business/have-your-say
[10] AGN – Stakeholder Engagement Workshop presentation, 21 March 2016, Shepparton, page 6

Participants were presented with information to enable them to gain an understanding of the gas supply chain, the regulatory regime, and components of a retail gas bill. They were then asked to rate their 'willingness-to-pay' for several initiatives and programs proposed by AGN.

We appreciate that AGN is using responses to 'willingness-to-pay' questions to inform the scope and delivery of its programs, rather than to justify business expenditure proposals. Nevertheless, as highlighted by earlier CCP advice to the AER,[11] we consider that the most reliable approach to willingness-to-pay surveys is to undertake a "discrete choice experiment" in which consumers are offered a range of options of prices and services. We note that AGN moved towards presenting a wider range of choice among options for some initiatives, for example participants were presented with 3 choices for progressing the 'Dial Before You Dig' initiative, with 3 different cost options.[12] Similarly, the 'Place your money on the line' technique used to assess customer preferences in relation to the frequency and duration of planned outages provided participants with a choice of options (but not costs).[13] For other initiatives, however, for example the marketing campaign, workshop participants were only presented with one option and in the case of the marketing example, with an unclear outcome:

> *Do you support paying up to $3 per year more on your bill in the short term to expand our marketing program on the basis that overall bills will fall in the medium term?*[14]

We note that, in contrast with the approach used in SA, anonymous voting methods were used for participants to nominate their preferences in the workshops. We consider that this is a positive development, and believe that it will improve the quality of the information gathered through the customer workshops.

We understand that internal workshops were conducted to integrate the customer insights and stakeholder feedback into business plans. Furthermore, two follow-up customer workshops were held to verify that customer input had been accurately interpreted within the business.

AGN has clearly explained how the customer insights derived from the workshops have informed its Final Plan.[15] We consider that AGN's engagement with residential and small business customers has been very effective.

In future AGN may wish to consider:

- if a sample size of 78 customers is sufficient, or whether a larger sample would add to the richness of the data collected;
- what opportunities may be provided for participants to raise issues beyond AGN's set agenda for the workshops;
- given the diversity of AGN's customer base, whether conducting a small number of workshops dedicated to target groups, for example, low income consumers, or culturally and linguistically

[11] CCP – Preliminary Advice on the Effectiveness of Consumer Engagement by Network Businesses, July 2014
[12] AGN – Stakeholder Engagement Workshop presentation, 21 March 2016, Shepparton, page 18
[13] AGN – Five Year Plan for our Victorian and Albury Natural Gas Distribution Networks: 2018 to 2022, Customer Overview, page 13
[14] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 5.11, slide 17
[15] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Table 5.3

diverse small business owners, may extend the breadth of the feedback and insights for AGN, and may highlight new customer issues for the business to address.

Engagement on Gas Incentive Arrangements

AGN is proposing additions to the incentives framework that applies to gas businesses in Victoria over the next AA period. Similar proposals for the SA network had not been accepted by the AER, in part because there had not been sufficient industry consultation on the issue.[16] In response, AGN and the other gas distribution businesses conducted dedicated stakeholder engagement on the proposed gas network incentive arrangements.

Consultation comprised the following steps:

- Issue Paper – On 10 June 2016 the DBs released an Issues Paper1 prepared by Farrier Swier Consulting (FSC)
- Joint Stakeholder Forum – The DBs held a joint Stakeholder Forum on Incentive Mechanisms in Melbourne on 11 July 2016 facilitated by FSC
- Submissions – Stakeholders were invited to make submissions.[17]

The AER participated in the Stakeholder Forum.

Although only one consumer organisation provided a submission to the process, others commented on the value of the forum and the findings report in raising their level of awareness and understanding of the schemes under discussion.

CCP11 considers that this was a very proactive, transparent and effective initiative to engage in depth with a range of stakeholders on a topic of significance to the gas industry in Victoria as a whole.

Release of the Draft Plan

A key part of AGN's stakeholder engagement program was the release of a Draft Plan on 5 July 2016, 6 months in advance of the date for lodgement of AGN's AA proposal. This was the first time that a gas distributor has released a draft of their entire proposal. We commend AGN for this important initiative, and agree with their view that it "represented a significant step forward in our approach to stakeholder engagement".[18] AGN highlighted that:

> *The Draft Plan outlined the feedback from the Research Phase, our response to that feedback, the services we intend to provide, the costs we expect to incur and the prices we propose to charge over the next AA period.*

We received positive feedback from consumer representatives who observed that the release occurred in winter when people were focused on high bills for heating, as against the summer release of the Final Plan.

[16] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 37

[17] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 11.3, page 7

[18] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 39

AGN sought feedback on the Draft Plan through follow-up customer workshops, dedicated stakeholder workshops, a call for submissions and industry presentations. The feedback received has informed the Final Plan, with AGN transparently reporting and explaining variations between the Draft and Final Plans using a 'traffic light' reporting style.

Consumer representatives reported that the availability of the Draft Plan has facilitated more open and informed review and feedback from stakeholders than has been possible previously. CCP11 supports this view. Release of the Draft Plan demonstrated AGN's intentions to deliver a 'no surprises' proposal for the Final Plan. This element of AGN's stakeholder engagement program has been highly effective.

Large Users

AGN conducted a survey of 30 large users to seek their interest in participating in the engagement program and to understand their current and future service needs.[19] In spite of the relatively low level of response (9 respondents), we encourage AGN to continue to seek appropriate opportunities for dialogue with this important customer cohort.

Final Plan

AGN has published an overview of its Final Plan in a user-friendly format: the 20 page "Five Year Plan for our Victorian and Albury Natural Gas Distribution Networks: 2018 to 2022 – Customer Overview". This high-level document draws attention to the highlights of the plan in an accessible manner for those interested stakeholders who don't require the full detail of the regulatory documents. We consider this to be a customer-friendly version of the complex set of information that comprises AGN's full AA proposal.

CCP11 welcomed the care taken by AGN in the Final Plan to lay out very clearly within each section of its proposal document how stakeholders had been engaged on that topic and how it informed their approach.

1.4 Conclusion

AGN has stated that 'Our overarching objective is to submit a plan that delivers for customers, is underpinned by effective stakeholder engagement and is capable of being accepted by the AER.'[20]

Overall, CCP11 consider that AGN has clearly met its objective of presenting an Access Arrangement Proposal which is underpinned by effective stakeholder engagement.

AGN has now established a solid foundation and track record for effective stakeholder engagement. The challenge ahead is for AGN to consider opportunities to engage with stakeholders at the 'involve' and 'collaborate' levels of the IAP2's Public Participation Spectrum,[21] particularly focusing on the 'Promise to the Public' dimension of the spectrum.

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[19] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 37

[20] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Plan Highlights, page iv

[21] See https://www.iap2.org.au

CCP11 wishes to thank AGN for its co-operation, as well as its willingness to present to CCP11, and to involve CCP11 in its stakeholder engagement activities.

2. AusNet

2.1 Effectiveness of Consumer Engagement

AusNet developed and implemented a consumer engagement program building on its experience in 2014-15 with consumer engagement in the Electricity Distribution Price Review for AusNet's Victorian electricity distribution network. Overall, the consumer engagement program is well-designed and reasonably comprehensive. However, it may not have been as effective as it could have been.

The program aligned with the AER's Consumer Engagement Guideline, and draw on Energy Networks Australia's draft Customer Engagement Handbook (9 February 2016). AusNet adopted the International Association for Public Participation (IAP2) engagement spectrum on an issue-by-issue basis. AusNet notes that:

> *"For most of the issues AusNet Services identified, the level of engagement was at the 'consult' and 'involve' levels. This reflects the considerable improvement in the quality of AusNet Services' customer and stakeholder engagement, going beyond simply 'informing' these groups on key issues."*[22]

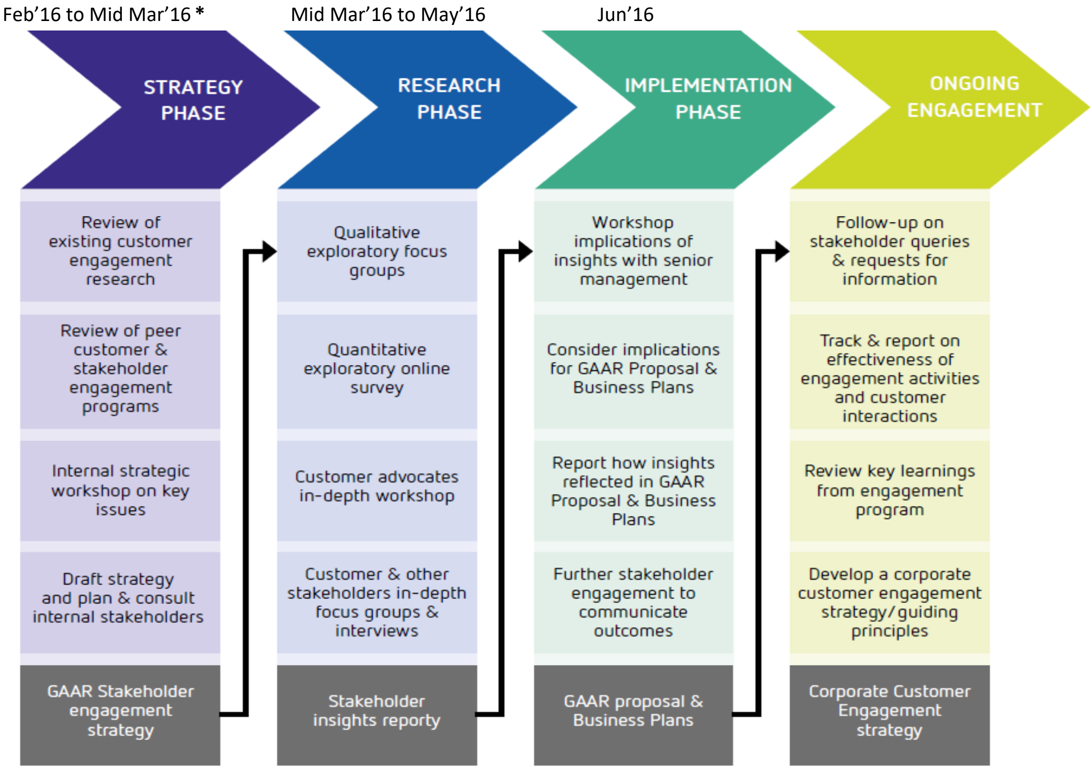
AusNet sets itself a sound objective for its consumer engagement:

> *"to deliver authentic, customer priority-driven engagement that will meet external stakeholder expectations, and inform the development of the GAAR proposal and business planning."*[23]

The Company began its consumer engagement in early 2016, following the plan shown in the schematic below.

[22] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information 16 December 2016 p.80
[23] Ibid p.79

Figure 2.1: AusNet's Customer and Stakeholder Engagement Program[24]



This plan resembles AusNet's consumer engagement plan for its Victorian electricity distribution network in 2014-15.[25]

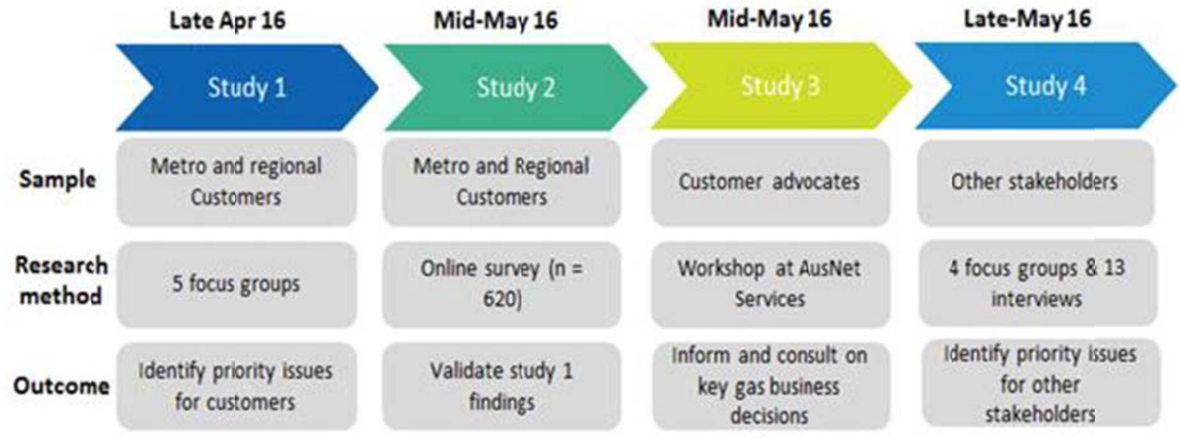
The initial strategy phase is a research, planning and issue identifying exercise to try to get the appropriate approach to the consumer engagement for the business and the relevant consumer parties. From this the Company developed a "Customer and Stakeholder Engagement Strategy": with AusNet seeing "customers" as domestic gas consumers and "stakeholders" as business gas users, consumer advocates, local councils and land developers.[26] This characterisation carries through AusNet's consumer engagement process.

The Research Phase involved four studies to try to learn more about "customer and stakeholder" issues. AusNet had an external marketing research agency, Colmar Brunton, involved throughout the process providing independent facilitation, development of the research materials, analysis and participant recruitment.

[24] AusNet Services – Presentation at AER Public Forum – 1 February 2017 p.7
[25] http://www.ausnetservices.com.au/Electricity/Determining+Revenues/Distribution+Network.html
[26] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information 16 December 2016 p.80

The four studies in the Research Phase are summarised by the following schematic:[27]

Figure: 2.2 AusNet Consumer Research Studies



AusNet undertook its Research Phase using a range of approaches across the four studies shown above, from small group interactions (focus groups and workshops with consumer advocates and individual interviews with large businesses, local councils and land developers) to an on-line survey with 620 participants. This diversified approach represents an effort to deal with the potential short comings of each of these tools.

The focus groups with consumers sought to overcome the lack of gas industry knowledge in household consumers, by working in small groups with time to explain more complex issues and seek feedback. The focus groups were structured by age/family status and location (county/city) demographics. It might have been instructive for this study to look at wider consumer diversity perspectives (e.g. income categories, financial disadvantage, home owners and home renters etc.).

The workshop with consumer advocates focused on seeking their views on the insights which AusNet had garnered from the focus groups and on-line survey which seems a worthwhile attempt to bring some specialist consumer oversight to balance some of the shortcomings inherent in the first two studies (e.g. the information imbalance which makes it harder for participants to respond in an informed manner).

The difficulty of engaging with consumers on complex matters associated with operating a gas network, such as cost/risk trade-offs, is acknowledged by CCP11. While there don't appear to be egregious failings in this regard, some of the question structure in the Research Phase seems a little loaded. For example, people were provided a range on trade-off statements and asked to rank them in a five point scale from "Strongly Disagree" through neutral to "Strongly Agree". The following are the top most supported statements:

[27] Ibid. p85

Table 2.1: Trade-off statements from Colmar Brunton Report[28]

Statement 2	Statement 6	Statement 1
I would like to have cheaper gas bills, but I am not willing to achieve this at the expense of the reliability or safety of the gas network.	AusNet Services should factor in the future costs associated with maintaining the gas network to ensure that it is always reliable and safe. If AusNet Services undertakes accurate forward planning, there should be no need to increase charges to customers for maintenance purposes in the future.	When it comes to the gas network, reliability and safety are strongly linked (i.e. a leak is a safety risk and may result in an outage). As such, any attempts to reduce the price of gas by lowering the reliability of the network would also mean that the safety of the network is compromised, and this is not acceptable.
73% supported[#]	70% supported this[#]	68% supported this[#]

i.e. answered with: "Somewhat Agree" or "Strongly Agree"

The conclusions drawn in the Colmar Brunton report from these results is:

> *When looking at the network trade-off statements, those that resonated most strongly with customers centred around making no compromises on reliability and safety to achieve cost reductions, and AusNet Services undertaking forward planning to factor in and absorb future costs.*

Statements around safety are difficult to couch neutrally and can easily be emotive. For many people without an expert knowledge of gas networks, the cost of options available and risk assessment, the parts of the statements in Table 2.1 highlighted are probably hard to disagree with.

In Study 4, AusNet had engagement with medium sized businesses through focus groups and through one-on-one meetings with local councils, land developers and large business users (of which only one accepted the invitation). AusNet did not engage with retailers in this process. Having regard to the relationship that retailers have with AusNet's consumers it may be been a further channel of useful feedback.

CCP11 sees that one of the greatest challenges for NSPs in consumer engagement of this kind is to strike the right balance in seeking a view through a simple and measurable process but ensuring that it is informed and balanced. Overall, AusNet's Research Phase demonstrates a sound effort to capture a diverse range of consumer perspectives although there are some areas where AusNet might improve its process in the future.

AusNet undertook consultation (together with AGN and Multinet) on gas incentive arrangements which as noted in 1.2 above is considered by CCP11 to be a proactive, transparent and effective initiative.

In the Implementation Phase of its Customer and Stakeholder Engagement Program, AusNet sought to bring the experiences from the earlier stages of its consumer engagement into its business and planning for the forthcoming Access Arrangement proposal by various means including:

[28] AusNet – Gas Access Arrangement Review 2018-2022 Appendix 5A - Colmar Brunton - Energy Research Summary Report p.39

- Publishing customer and stakeholder insights reports on its website and sending these to participants in the consumer engagement;
- Presenting insights at AusNet Services' Customer Consultative Committee (established in June 2016 and discussed below); and
- Internal implementation and insights workshop with key executives and decision makers to discuss how the insights learned from the Research Phase impacted on business decisions and planning for the gas network.

How the consumer engagement learnings are reflected in the Access Arrangement proposal is considered in section 2.2 below.

The final phase of the Customer and Stakeholder Engagement Program, Ongoing Engagement, includes:

- Monitoring performance on consumer interactions such as emergency response, outages, complaints and delivery to milestones in attending customer appointments and completing customer connections;
- A feedback survey for those who participated in consumer engagements to rate their experience (which showed overall positive experiences of the process by participants);
- Review learnings from this engagement process to feed into improvements for future consumer engagement;
- Sharing learning with other NSPs to help improve everyone's knowledge and learnings; and
- Develop a "Stakeholder Engagement Strategy" to provide that future customer and stakeholder interactions are conducted in a consistent manner across AusNet's regulated and unregulated businesses.[29]

As part of this commitment to ongoing interaction with consumers, in 2016 AusNet established a Customer Consultative Committee[30] that meets four times a year. It comprises bodies representing a cross section of consumers and other interested parties including small and large consumers' representatives, energy advocacy bodies, a rural consumers' representative, a local council, and the Energy and Water Ombudsman (as an observer). Several members of AusNet management including the Managing Director are on the Committee. A permanent forum for interaction between AusNet and its consumers is a positive step. CCP11 believes that AusNet has an opportunity to work with the Committee to improve outcomes for its consumers on an ongoing basis as well as demonstrate in the next Access Arrangement process consumer driven outcomes flowing from the Customer Consultative Committee.

CCP11 was not constituted until late September 2016, so it was unable to participate in or observe on any of the focus groups and other processes in the formative period of AusNet's consumer engagement program.

However, CCP11 had the opportunity to meet with key AusNet staff in November 2016. It was apparent from this meeting that AusNet had constructively embraced the process of consumer engagement. They noted learnings from their electricity consumer engagement in 2014-15, and

[29] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information_16 December 2016 p.98
[30] https://www.ausnetservices.com.au/en/Community/Customer-Consultative-Committee

there were some areas where they would change their approach in future consumer engagements. There was discussion of how consumer issues were being further integrated into the fabric of the business' operations (although some of the matters such as initiatives to connect consumer issues with employee and contractor behaviour are not covered in AusNet's proposal), and observations on how the process might be improved in the future.

CCP11 met in early December 2016 with consumer advocates who had participated in AusNet's consumer engagement process. The following are some unattributed observations that CCP11 heard from participants:

- Impressed with AusNet's openness in publishing detail of consumer engagement on its web site;
- Sentiment that there was sometimes limited opportunity for questions and that in some respects face to face engagement was a little rushed;
- Comment that AusNet didn't go beyond nuts and bolts;
- Concern that due to staff turn-over, organisation funding constraints, a lesser focus on gas than electricity, and less skill with and understanding of gas, that consumer representative bodies had not been able to engage with the Victorian GAAR processes in as effective a manner as they would like to have;
- Feeling that interaction was a little vague and lost in direction;
- It would be better if a permanent consultation forum existed;
- Independent chairing of consumer meetings a positive; and
- AusNet showed "good faith" in meetings.

Overall, CCP11 received mixed feedback on AusNet's consumer engagement from those that were interviewed.

2.2 Learnings from Consumer Engagement

AusNet's learnings from its consumer engagement are limited by the fact that the engagement did not involve consulting with consumers on the actual Access Arrangement proposal or preliminary set of key features. Without this level of engagement with consumers, the learnings are much more extrapolation from principles or issues identified in the engagement process. It would be a leap forward for AusNet in future consumer engagements to share with consumers some detail of what the Company is thinking of proposing to the AER, or indeed to share a draft of its Access Arrangement proposal, and listen to consumer reactions, and then to integrate these into the proposal that it submits to the AER.

AusNet notes the following actions which it took arising from its consumer engagement program:

Figure 2.3: AusNet actions in response to consumer feedback[31]

Focus on safety	Strengthening incentives	Accelerated Depreciation
Customers and stakeholders told us that gas safety was their top priority. We will continue our commitment to maintain the safety on the network by completing the mains replacement program.	Customer supported the strengthening of incentives but highlighted that the incentives should be balanced in respect to expenditure efficiency and service performance. Our proposed incentives framework provides this balance.	Customers were concerned with potential price increases in the near term. A strong evidential case for future utilisation risk is needed to be made. In response, we decided not to propose any form of accelerated depreciation in the next five years.

AusNet's action in deciding not to propose any accelerated depreciation shows one action in recognition of the very reasonable consumer concern for increasing energy prices. AusNet's Access Arrangement proposal includes (in real terms) an initial 5% reduction in gas distribution charges in 2018 with annual 2% increases to 2022,[32] which answers this concern to some extent too. However, forgoing accelerated depreciation is only one of several considerations that might have addressed this consumer sentiment.

The conclusion drawn in Figure 2.3 that completion of the mains replacement program is necessary to address the consumers' top priority of safety may be correct in absolute terms, but ignores the complex consideration of risk assessment and the how and when to complete mains replacement to meet the appropriate balance of safety and cost. Likewise, drawing support for complex incentive schemes from sentiment for strengthening incentives and concern for potential price increases is a simplification.

The following is AusNet's summary of how it incorporated its learnings from the consumer engagement process into its proposal:

"How we are incorporating customer feedback

- *Dial before you dig service and a free asset location service which seeks to prevent accidental third party damage of gas assets*
- *Frequent 1-on-1 meetings with large stakeholders to discuss issues of concern*
- *Tariff education through customer-friendly publications available online*
- *Introduction of the network innovation scheme to ensure that the future energy needs of customers are met*
- *New website that will be more customer friendly and informative*
- *SMS outage notification to alert gas customers about any works that may affect them*
- *Main replacement program to proactively remove deteriorated mains and pipelines*
- *Meter replacement program to replace end of life metering assets at customer premises*
- *Winter testing program designed to monitor pipeline pressure and identify areas that need augmentation"* [33]

[31] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information_16 December 2016 p.98
[32] Ibid p.7
[33] AusNet Services – Presentation at AER Public Forum – 1 February 2017 p.9

It is not clear how these conclusions were derived and how directly they reflect consumer sentiments.

Throughout its Access Arrangement Information paper, AusNet refers to consumer engagement feedback relevant to various expenditure and other proposals, with comments such as:

> *AusNet Services also analysed the efficiency of its proposed capex program from the perspective of its customers, using information obtained through its customer engagement program. Customers' views on pricing, reliability and safety were taken into account in designing AusNet Services' proposed investment program where it was feasible to do so. By taking this approach, the resulting forecast capex reflects the lowest sustainable cost necessary to meet customer expectations and is, therefore, considered to be in the long-term interest of consumers.*[34]

It would be helpful to see more information on how consumers' views have been considered, particularly consumers' concerns about price increases, and some of the considerations which are made to determine whether it is "feasible" to take these into account.

2.3 Consumer Representatives' expectations

Due to engagement with a small sample of participants involved in AusNet's consumer engagement and there being no opportunity to engage with consumer participants following release of AusNet's Access Arrangement proposal, it is difficult to comment on whether those involved feel satisfied that their concerns have been addressed or recognised fairly in the proposal. AusNet's proposal makes this assessment difficult too because it does not sufficiently explain how consumer engagement outcomes were considered in relation to the key aspects of the proposal. Had AusNet used a draft of its proposal in the engagement process, this would be better understood by all parties involved.

A review of how consumers feel their issues have been addressed in the Access Arrangement proposal would be useful in assessing the effectiveness of the program and for planning for future consumer engagement. AusNet has an opportunity through its Customer Consultative Committee to explore this issue and share the outcomes on its website.

2.4 Conclusions

In CCP11's view, AusNet undertook a well-planned consumer engagement process. However, there are some concerns with how AusNet appears to have engaged with consumers and it could have more clearly demonstrated how its consumers' sentiments were incorporated into its Access Arrangement proposal. AusNet has established a permanent Customer Consultative Committee which meets regularly and is a foundation for further improvement of AusNet's engagement with consumers.

[34] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information_16 December 2016 p.105

3. Multinet

3.1 Consumer / stakeholder engagement undertaken by Multinet

Multinet discusses in chapter 7 of its Access Arrangement Information the outcomes of its recent stakeholder engagement and how they informed its proposals in its AAI.[35]

Engagement prior to submission of Multinet's regulatory proposal

Multinet undertook the following stakeholder engagement activities to inform its proposals in its AAI:

- A Gas Access Arrangement Review (GAAR) Reference Group comprising the following invitees: Alternative Technology Association, St Vincent de Paul, Consumer Utilities Advocacy Centre, Energy Consumers Australia, Brotherhood of St Laurence, South East Community Links, Council of the Aged and Kildonen. Multinet met regularly with the Reference Group and with individual stakeholders between March and November 2016 to discuss issues and hear proposals relevant to its Access Arrangement Information.
- A joint Victorian distributor stakeholder forum attended by 29 participants including the AER, a public Issues Paper (on which stakeholders made written submissions) and a public Final Report that dealt with possible future incentive mechanisms that could apply to the Victorian gas distributors.[36]
- Eight focus groups – four for residential customers and four for small business customers – that discussed issues relevant to Multinet's Access Arrangement Information in 90 minute sessions that were independently facilitated. 67 participants attended these focus groups.
- A survey of Multinet's Tariff D customers (representing 30 to 35 per cent of its Tariff D consumption and 21 to 23 per cent of its Tariff D MHQ) about anticipated changes in their future loads.
- A retailer workshop on 22 November 2016 to discuss Multinet's proposed changes to Parts A, B and C of its Access Arrangement and seek their views on these changes and any other changes that they would like made. The following retailers attended the workshop: Origin Energy, AGL, M2 Energy (DODO), Lumo Energy, Red Energy and Globird.[37]

Two tables in Multinet's AAI set out:

- The key findings from Multinet's stakeholder engagement; and
- A summary of Multinet's responses to the feedback, which references other chapters of the AAI.[38]

Multinet states that it has provided the AER with supporting documentation that further explains its stakeholder engagement feedback. Though not explicitly referenced in the AAI, these documents have been provided by Multinet as supporting information attachments to its regulatory proposal.[39]

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[35] Multinet – 2018 to 2022 Access Arrangement Information, Chapter 7, pages 21-23

[36] The statement that the stakeholder forum attended by 29 participants including the AER is sourced from Multinet – 2018 to 2022 Access Arrangement Information, Section 7.1, page 21. Farrier Swier – Findings report – Victorian gas distribution businesses' consultation on incentive mechanisms p.8 states: "The Joint Stakeholder Forum was attended by 27 stakeholders including representatives of the DBs".

[37] Multinet – 2018 to 2022 Access Arrangement Information, Section 7.1, page 21

[38] Multinet – 2018 to 2022 Access Arrangement Information, Table 7-1 pages 21-22, and Table 7-2, page 23

[39] Multinet – 2018 to 2022 Access Arrangement, Supporting Information attachments 7.1 to 7.5

Further documents in relation to the GAAR Reference Group that do not form part of Multinet's regulatory proposal are available on Multinet's website.[40]

Evaluation and review of the effectiveness of consumer engagement processes

Evaluation and review of the effectiveness of consumer engagement processes is one of the five key elements of the AER's Consumer Engagement Guideline.

> *Measuring success is an important aspect of any effective consultation program. It assesses the way in which an activity or program of activities is undertaken (process) and the results of the activity or program (outcomes).*
>
> *Our primary objective is to gain stakeholder input into our regulatory proposal and secure support from stakeholder and the GAAR reference group on our final submission. To successfully achieve this we need to clear on negotiable and non-negotiable and ensure our consultation demonstrates actively listening to our consumers.*[41]

It seems that Multinet does not measure the success of consumer and other stakeholder engagement processes from the perspective of the consumers and consumer representatives and other stakeholders.

Multinet sets out success metrics for engaging customer groups, as shown in the table below.[42]

Table 7.1: Success metrics

Engaging customer groups	
Metric	**Approach to achieving**
Receiving input towards Multinet Gas' GAAR submission from hardship groups	Inclusion on GRG. Focus group session directly tailored to this group
Receiving input towards Multinet Gas' GAAR submission from CALD groups	Leverage GRG representation as a touch point into CALD groups within MG distribution area. Focus group session directly tailored to this group
Receiving input towards Multinet Gas' GAAR submission from small business groups	Directly approaching customers to participate in appropriate focus group session, potentially identify trader associations within distribution area.
Receiving input towards Multinet Gas' GAAR submission from residential representative groups	Directly approaching customers to participate in appropriate focus group session, potentially identify rate payers associations within distribution area.

These success metrics set out by Multinet relate to recruitment of consumers and consumer representatives for its Reference Group and for focus groups, but go no further to measure the outcomes from these forums to determine whether they were successful from the perspective of either Multinet or the engaged consumers.

Engagement since submission of Multinet's regulatory proposal

[40] See the Stakeholder Engagement section at https://www.multinetgas.com.au/gas-connections/gas-access-arrangement-review-2018-2022

[41] Multinet – Attachment 7.2 – GAAR Stakeholder Engagement Strategy 2018-22, page 14

[42] Multinet – Attachment 7.2 – GAAR Stakeholder Engagement Strategy 2018-22, page 14

Multinet committed in its AAI to continue to engage with its stakeholders throughout its Access Arrangement review process and during the forthcoming Access Arrangement period.[43]

Multinet presented and took questions from stakeholders at a public forum on 1 February 2017, alongside other Victorian gas network businesses. This meeting was chaired and hosted by the AER, with AER Board and staff representatives, alongside all members of CCP, and various consumer and other stakeholder representatives.[44]

CCP11 has not been made aware of any other stakeholder engagement undertaken by Multinet since submission of its regulatory proposal.

Engagement with CCP

Due to the late establishment of CCP11, CCP11 members were not able to engage with Multinet at an early stage, and were not able to attend or observe any of the consumer engagement activities that were held before CCP11 was established.

While it would have been preferable to engage earlier, the first opportunity for CCP11 to meet with and to engage with Multinet was in November 2016.

Multinet met with CCP11 on 16 November 2016 prior to Multinet's submission of its regulatory proposal, and discussed Multinet's pre-final plan.

A CCP11 member attended a GAAR Reference Group meeting hosted by Multinet on 17 November 2016, and the retailer workshop hosted by Multinet on 22 November 2016, where Multinet presented its pre-final plan.

CCP11 thanks Multinet for its co-operation, its willingness to present to CCP11, and to involve CCP11 in its stakeholder engagement activities.

3.2 Views of consumer representatives

CCP11 interviewed consumer representatives between 5 and 12 December 2016 to get feedback on their engagement with the Victorian gas network businesses. We received the following feedback with reference to Multinet. Responses are attributed anonymously, as we undertook to our interviewees not to reveal identifying information.

Multinet tried to engage with a core group of consumer advocates. Consumer representatives commented generally that there was insufficient consumer representation to cover all the networks businesses' engagement activities, due to the small pool of consumer representatives available overall. There was commendation for the incentives mechanism forum which had been jointly run. Consumer representatives would have preferred had Multinet run more combined forums and groups with other businesses. This had apparently been proposed but did not eventuate. Some consumer representatives suggested that more combined processes would be a more efficient use of consumer representatives' limited resources.

[43] Multinet – 2018 to 2022 Access Arrangement Information, Section 7.1, page 21

[44] The presentations at this forum are available at http://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/multinet-gas-access-arrangement-2018-22/proposal

We received positive feedback that Multinet encouraged communication, including one-on-one as well as group meetings.

We received a positive comment that the Multinet engagement had learned a lot from the experience of United Energy's electricity distribution stakeholder engagement, including engagement on the United Energy Tariff Structure Statement.

We received positive feedback that Multinet discussed with its GAAR Reference Group its proposed engagement with focus groups. However, the GAAR Reference Group only saw the slides that would be used with the focus group on the day when they were going to be used. The Reference Group raised some concerns on some of the questions to be asked of the focus groups, but did not know whether Multinet acted on those concerns. One consumer representative said that it was absurd to ask ordinary consumers about the merits of a revenue cap versus a price cap. In contrast, focus groups were not asked for views about marketing, which they might have more readily understood. Consumer representatives felt that it would be important to drill down on how Multinet got the responses it did from the focus groups.

The Reference Group had understood from Multinet that the focus groups would inform a deliberative forum that Multinet would then hold. However, after the focus groups were held, Multinet reported that the deliberative forum would now not be held as sufficient feedback had been received from the focus groups.

3.3 CCP11 views on Multinet consumer engagement

CCP11 has reviewed:

- The materials provided by Multinet in its regulatory proposal and on its website;
- Findings from discussions that CCP11 held with consumer representatives; and
- CCP11's own interactions and discussions with Multinet.

CCP11 commends Multinet on its consumer / stakeholder engagement activities, which have sought to involve stakeholders in the regulatory process, informing them of Multinet's plans and listening to and acting on stakeholder input. As discussed above, the comments we got from consumer representatives who engaged with Multinet were generally positive, with some constructive suggestions for improvements in specific areas.

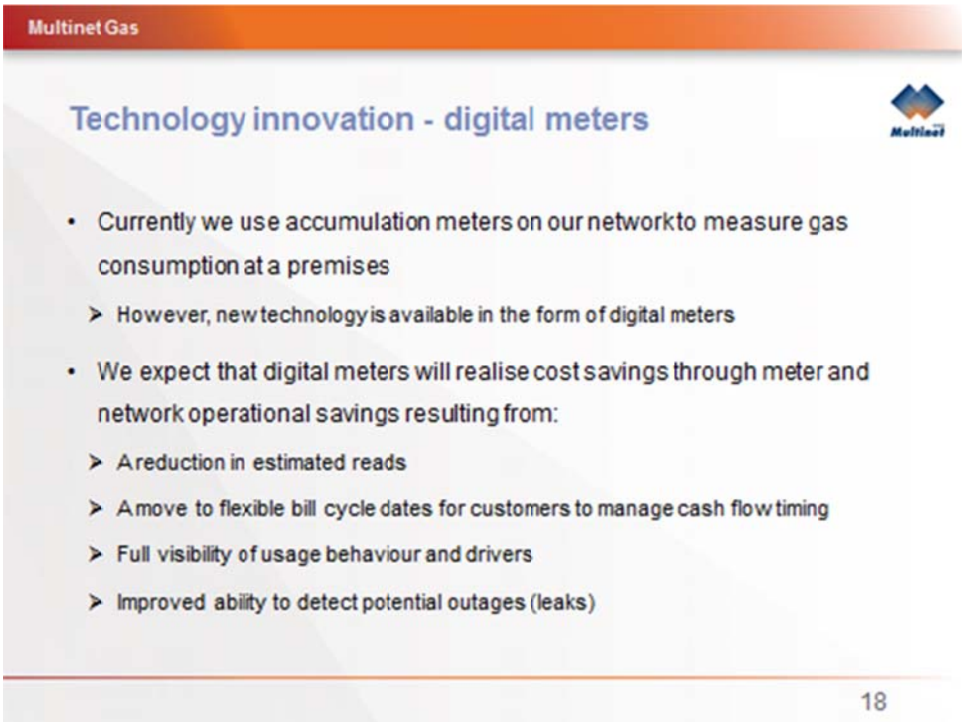
Consumer representatives alerted CCP11 to concerns regarding how the focus groups were run. The first AER Consumer Challenge Panel (2013-16) discussed at various times issues that arise when network businesses run focus groups and similar forums for consumers who are not necessarily significantly engaged with the industry. It is important for the businesses to reach out to these consumers, to engage with them, and to take their input into account in their regulatory proposals and in the way they run their business. However, one of the pitfalls is that consumers may inadvertently feed back to the business what the business wanted to hear, because of the way the issues on which feedback is sought are put to them. If this is the case, less weight should be put on the feedback as being the real views of the consumers.

By way of example, we find in Multinet's regulatory proposal that focus groups were asked: "Do you see benefits in us moving to digital meters, and is this initial investment worthwhile to deliver longer term benefits to customers? Do you have any concerns?"

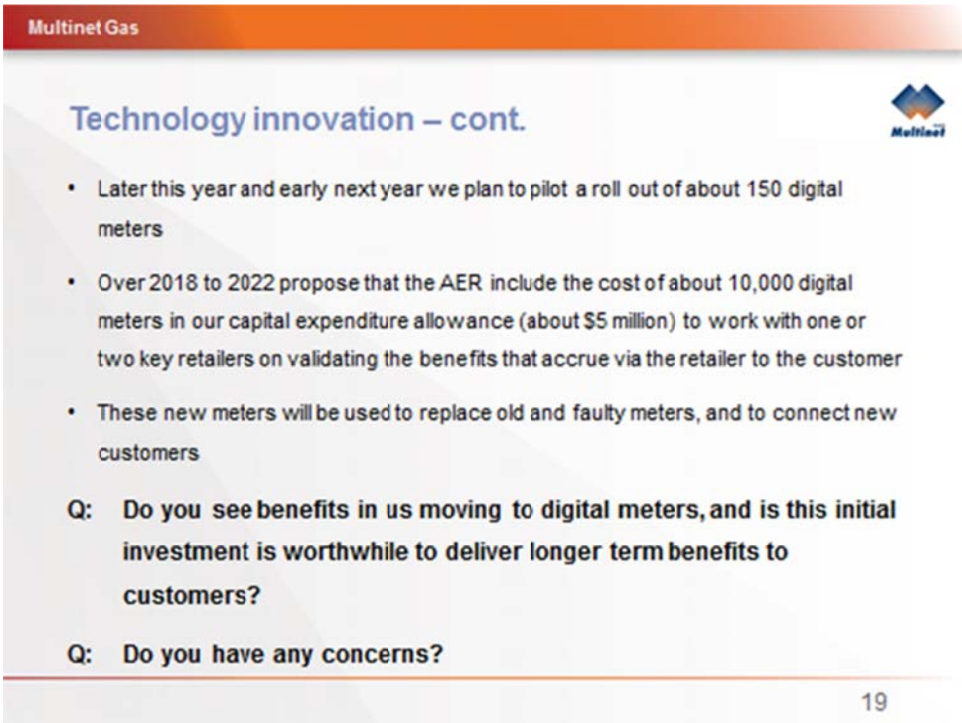
In response, a key insight from the focus groups was that "Digital meters are inevitable and a controlled approach to replacement of existing meters was sensible". Multinet reported "General overall support for controlled pilot program, particularly one that focuses on replacement of faulty meters and new connections, that avoids Vic AMI problems (such as faulty meter reads, increased bills) and costs.[45]

The implication from reading the report from Farrier Swier from which we have quoted above is that Multinet asked open questions, did not lead participants to particular viewpoints, and received strong support for digital meter rollout.

However, when we look at the presentation that was shown to focus group participants before these questions were asked, we find that they were shown the following two slides:



[45] Farrier Swier – Multinet Gas Stakeholder Consultation, Feedback from focus group meetings 26 & 28 July and 2 & 4 August (Attachment 7.5), pages 12 and 44-45



The talking points to slide 18 read: "We believe that technological change is required for significant cost reductions". The talking points to slide 19 read:
"Note: MG plans to utilise the existing AMI infrastructure (the meter requires a communication device with battery power)
Cost to customer of the trail (sic) will be less than $1 per year per customer"[46]

Thus Multinet:

- First showed focus group participants a slide showing benefits and cost savings from installation of digital meters, and a slide proposing a trial with a cost to the customer of "less than $1 per year per customer".
- Then immediately asked participants "Do you see benefits in us moving to digital meters, and is this initial investment worthwhile to deliver longer term benefits to customers?"

How could participants say that they could not see benefits that they had just been shown? How could participants say that an initial investment of "less than $1 per year per customer" was not worthwhile?

We conclude that it might not be possible to put high reliance on the focus group participants' responses in this instance.

As highlighted by advice to the AER provided by the initial CCP (2013-16),[47] the most reliable approach to willingness-to-pay surveys is to undertake a "discrete choice experiment", in which consumers are offered a range of options of prices and services.

[46] Farrier Swier – Stakeholder Engagement – Multinet GAAR Residential and Small Business Focus Group presentation
[47] CCP – Preliminary Advice on the Effectiveness of Consumer Engagement by Network Businesses, July 2014

Information in the regulatory proposal regarding how Multinet took account of consumer engagement in its regulatory proposal

Multinet sets out at the outset of its AAI: "We have developed this Access Arrangement Information following extensive communication and engagement with our customers and other stakeholders."[48]

As noted above, two tables in Multinet's AAI set out:

- The key findings from Multinet's stakeholder engagement; and
- A summary of Multinet's responses to the feedback, which references other chapters of the AAI.[49]

CCP11 believes that rather than just have a single Chapter in the AAI on "What our stakeholders are telling us",[50] it would have been preferable had Multinet included discussion of consumer engagement feedback relevant to various expenditure and other proposals throughout the AAI. That would have enabled Multinet to provide more detailed information on how consumers' views have been considered at each step of its regulatory proposal.

Future intentions

CCP11 welcomes Multinet's commitment in its AAI to continue to engage with its stakeholders throughout its Access Arrangement review process and during the forthcoming Access Arrangement period.

CCP11 suggests that Multinet should measure the success or otherwise of its engagement activities, and should undertake evaluation and review in accord with the AER's Consumer Engagement Guideline. The learnings should feed into improvements for future consumer engagement. A review of how consumers feel their issues have been addressed in the Access Arrangement proposal would be useful in assessing the effectiveness of the program and for planning for future consumer engagement.

As stated by Multinet:

> *We recognise that best practice engagement should be an integral and on-going part of our operating model. This requires a shift in culture, the introduction of new specialist skills and time to build understanding and trust with an extensive group of stakeholders who have an interest in our services.*[51]

We support these future intentions.

[48] Multinet – 2018 to 2022 Access Arrangement Information, Section 7.1, section 3, page 4
[49] Multinet – 2018 to 2022 Access Arrangement Information, Table 7-1 pages 21-22, and Table 7-2, page 23
[50] Multinet – 2018 to 2022 Access Arrangement Information, Section 7, page 21-23
[51] Multinet – 2018 to 2022 Access Arrangement Information, Section 7, Page 21

B. Long Term Interests of Consumers

Whether the network businesses' proposals are in the long term interests of consumers

1. Demand Forecasts

1.1 Introduction – importance of demand forecasts

Demand forecasts in a gas distribution business' regulatory proposal cover forecasts for gas consumption and customer numbers, in the residential, commercial and industrial sectors.

Gas demand forecasts are a key input into determining growth capex and opex forecasts. These are important building blocks in determining the total revenue that a business should be able to recover in the coming regulatory period.

Gas demand forecasts are used in setting reference tariffs (prices), as these are determined by dividing total revenue by the demand forecasts for each tariff component.

1.2 Reliance on stakeholder engagement

AGN states:[52]

> *We engaged with stakeholders in respect of our demand forecasts; in particular, explaining the forecasting methodology applied and the key drivers of future demand. Stakeholders understood our approach to forecasting demand and acknowledged the same forecasting approach had been applied and accepted by the AER for our South Australian network. Stakeholders also sought transparency as to the key assumptions driving the forecast of demand, which assumptions are explained in this chapter and the report and supporting models by Core Energy (see Attachments 13.1 through 13.5).*

AGN sets out the stakeholder feedback on its demand forecasting, which has been extracted from a report from AGN's consultant on consumer engagement.[53] AGN then explains how its approach is consistent with the feedback received.[54]

CCP11 is satisfied that the approach to forecasting that has been adopted by AGN is consistent with the feedback that AGN received in its stakeholder engagement.

AusNet and Multinet did not state that their methodology for demand forecasts was influenced by or based on consumer engagement.

1.3 New connections

New connections drive opex and capex forecasts to service new connections. The net new connections drive total customer numbers and hence total energy usage assumptions.

AGN

AGN has forecast residential customer growth based on forecasts of new dwellings from the Housing Industry Association (HIA).

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[52] AGN – Final Plan, Access Arrangement Information, Section 13.3, Page 151

[53] Deloitte – Stakeholder and Customer Feedback Report, December 2016, page 14, provided as Attachment 5.10 to the AGN Final Plan

[54] AGN – Final Plan, Access Arrangement Information, Section 13.3, Page 152, Table 13.1

Residential net customer growth is forecast to be 2.0% per year, which is lower than the historic growth rate of 2.4%. This is due to a slowing of new dwelling construction in Victoria and Albury over the next AA period as forecast by the HIA.[55]

The Gas Demand Forecast from Core Energy Group[56] forecasts net new connections by regressing historical AGN net new connections on HIA new dwelling starts data and then applying this statistical relationship to HIA forecast new dwellings.[57]

Thus AGN appears to assume that the proportion of new dwellings that will connect to the gas network will follow historic trends.

AusNet

AusNet states that actual penetration rates for 2013-17 were lower than expected.

> *Gas, unlike electricity, is a fuel of choice. Whilst the Victoria in Future (ViF) forecasts can be relied upon almost solely to forecast electricity customers, another variable needs to be added when forecasting gas customers: the penetration rate. The penetration rate is the proportion of new households which choose to connect to gas (or the overall proportion of houses in a given population who are already connected to gas). For example, if the number of households was growing by 2.0% per annum, but only half of those households chose to connect to gas, the number of gas customers would grow by 1.0% per annum whilst the electricity growth rate would be closer to 2.0%.*
>
> *At the same time that population and household growth has been higher than anticipated, the penetration rate has been falling. In particular, dwelling growth in AusNet Services' metropolitan area has not been matched by customer growth.*
>
> *Falling penetration rates are of concern to gas distribution businesses and existing gas customers alike. For a gas distribution business, falling penetration rates make planning the network and setting tariffs more difficult. If penetration rates fall further than the distribution business expects, there will be fewer customers to fund the assets in service, potentially increasing prices and making gas less competitive.*[58]

AusNet further notes:

> *The declining penetration rate for gas is suggestive of an increasing tendency for the developers and owners of new dwellings to connect solely to electricity, rather than both electricity and gas. CIE's report*[59] *notes that the Australian Energy Market Operator (AEMO), the Alternative Technology Association (ATA) and AusNet Services' own customers have all commented that gas is becoming less competitive relative to electricity and this is changing customers' preferences for fuel sources within the home.*[60]

However, notwithstanding this discussion of ongoing declining penetration rates, "For forecasting purposes, CIE used the revealed 2016 penetration rate, which captures the changes in preferences that have been observed to date".[61] It did not further ratchet down the penetration rate for the upcoming Access Arrangements period.

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[55] AGN – Final Plan, Access Arrangement Information, Sections 13.4.3.2 and 13.5.1, pages 154 and 156
[56] AGN – Final Plan, Access Arrangement Information, Attachment 13.1
[57] AGN – Final Plan, Access Arrangement Information, Attachment 13.1, Section 3.2.2, pages 32
[58] AusNet – Access Arrangement Information, Section 4.3.1, pp. 53-54
[59] CIE – 2018-2022 GAAR Consumption and Customer Forecasts, 2016, pp. 21-22
[60] AusNet – Access Arrangement Information, Section 4.3.1, page 55
[61] AusNet – Access Arrangement Information, Section 4.3.1, page 55

CIE's report[62] further explains that the methodology it chose was to use the 2016 observation, and explains that the 2016 observation for the marginal penetration rate captures all changes in preferences that have been observed to date. CIE further states:

> *As the marginal penetration rate has fallen (especially between 2012 and 2016), it is tempting to forecast this to continue. That is, it is tempting to forecast a decline in the marginal penetration rate between 2017 and 2022, down from its 2016 level.*[63]

CIE dismisses this "temptation".

Multinet

Multinet engaged the National Institute of Economic and Industry Research (NIEIR) to forecast consumption and customer numbers on its gas network in the forthcoming Access Arrangement period.[64]

However, CCP11 found little detail in Multinet's regulatory proposal its methodology as to how the number of new connections was forecasted. "Forecasts of residential customer growth are based upon forecasts of Multinet Gas' share of Victorian dwelling completions and the consequent growth in Multinet Gas dwelling stock"[65] and "NIEIR forecast residential customer growth based on our share of Victoria's dwelling completions and the consequent growth in dwelling stock within our service area".[66]

CCP11 conclusion on new connections

CCP11 notes that:

- AGN has assumed that the proportion of new dwellings that will connect to the gas network will follow historic trends.
- AusNet has used the 2016 proportion of new dwellings that connect to its gas network to project forward that the same proportion of new dwellings will connect to its gas network in each and every year of the forthcoming Access Arrangements period, without further adjustment.
- CCP11 found only a brief statement that referenced forecast residential customer growth, and was unable to locate where in Multinet's regulatory proposal its methodology for forecasting numbers of new connections was detailed.

CCP11 questions whether the distribution businesses' methodologies adequately allow for decreases in penetration rates in their forecasts of new connections.

CCP11 emphasises the need for network businesses to set out full details of methodologies in their regulatory proposals to enable stakeholders to provide informed submissions, in the AER's formal consultations which are a key component of the regulatory decision making processes.

1.4 Commercial customers

CCP11 notes the following figures provided by the gas distribution businesses for forecast commercial usage per customer (GJ) in their regulatory proposals.

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[62] CIE – 2018-2022 GAAR Consumption and Customer Forecasts, 2016, Page 41

[63] CIE – 2018-2022 GAAR Consumption and Customer Forecasts, 2016, Page 41

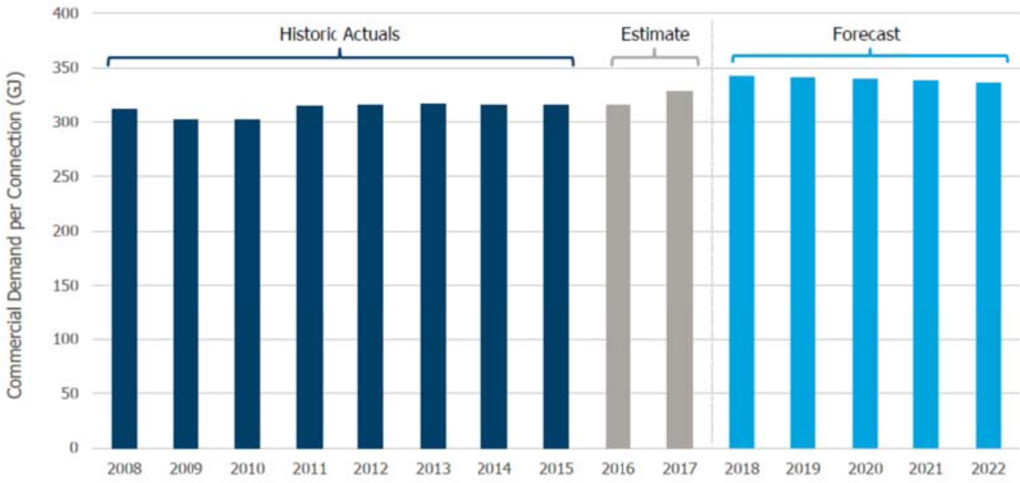
[64] Multinet – 2018 to 2022 Access Arrangement Information, Section 9 and NIEIR – Natural gas customer number and MHQ forecasts for Multinet Gas to 2026

[65] NIEIR – Natural gas customer number and MHQ forecasts for Multinet Gas to 2026, Page 8

[66] Multinet – 2018 to 2022 Access Arrangement Information, Page 34

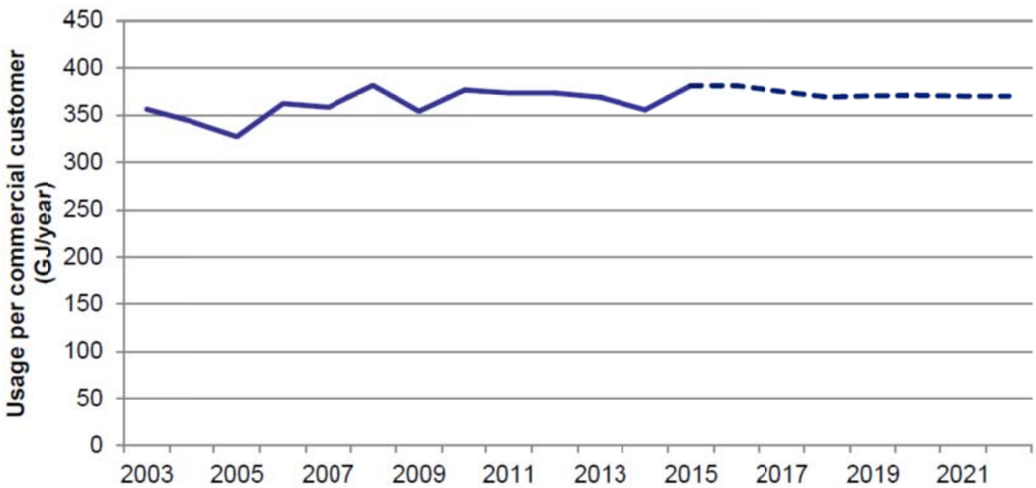
AGN:

Figure 13.4: Commercial Consumption per Connection (GJ)



AusNet:

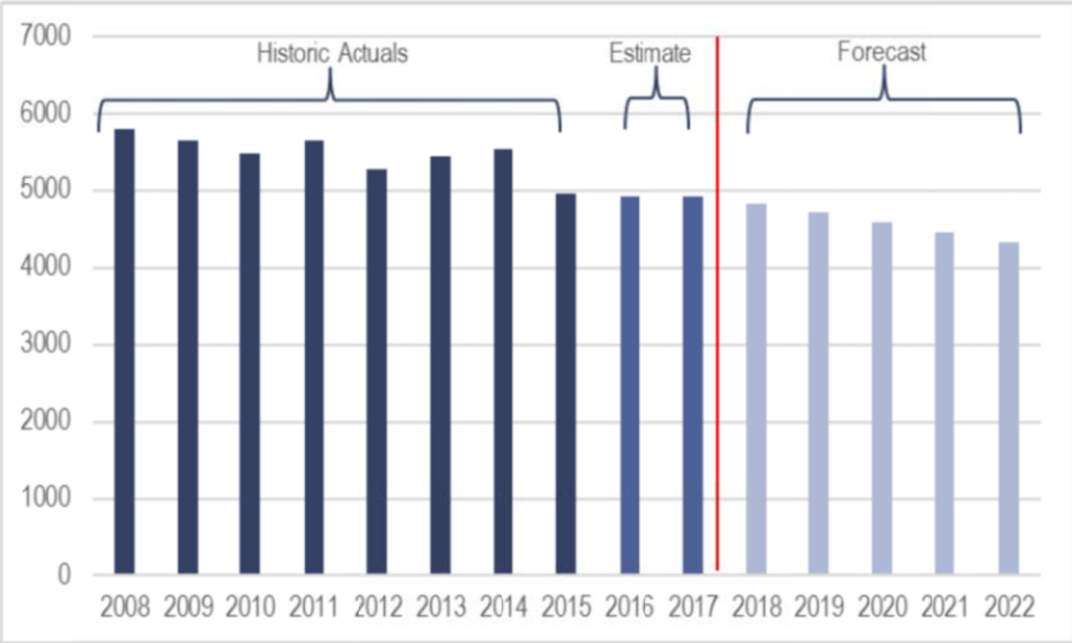
Figure 4-17: Forecast commercial usage per customer (GJ)



Source: CIE (2016)

Multinet:

Figure 9-5: Small business demand (TJ) – Weather normalised



CCP11 notices in particular an increase in AGN's forecast consumption per commercial customer in both 2017 and 2018, which are not seen in the other distributors' forecasts, which are trending downwards. The factors that Core Energy Group has taken into account in its forecasts for AGN and the relationships between them are complex, and CCP11 has not analysed them in detail to try to determine what has caused the anomalous increase in AGN's forecasts in those years. CCP11 does not see any particular underlying reason why the trend should be different for AGN in these years as against other years. CCP11 recommends that the AER should consider the businesses' forecasts for consumption per commercial customer in 2017 and 2018 in more detail to determine whether they are appropriate forecasts to underlie the forecast revenue requirements of the businesses.

1.5 Forecasts for new regional areas being connected as part of the Victorian Government's Energy for the Regions Program (ERP)

The Victorian Government's Regional Gas Infrastructure Program aims to supply reticulated natural gas to communities across regional and rural Victoria. The Program supports new business opportunities and investment in regional communities. Seven towns are being connected via conventional network extensions.[67]

- AusNet Services completed the extension of its network to the Huntly township in 2014 and is in the process of extending its network to Winchelsea, Bannockburn and Avoca, which is due to be completed in 2017;
- Multinet has recently completed the extension of its network to Warburton; and
- AGN is in the process of extending its network to Koo Wee Rup and Wandong-Heathcote Junction, with completion expected in 2017.

AGN and Multinet have not apparently separately forecast energy usage or the number of customers expected to be connected as part of the Victorian Government's Energy for the Regions Program (ERP).

[67] Regional Development Victoria website, http://www.rdv.vic.gov.au/regional-projects/regional-gas-infrastructure

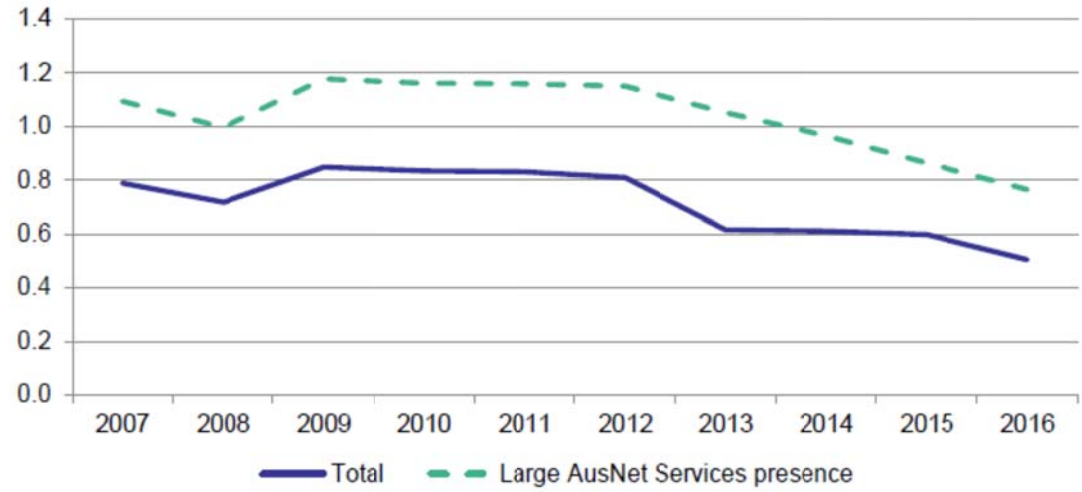
In contrast, AusNet has separately forecast the number of customers expected to be connected as part of the Victorian Government's Energy for the Regions Program.

> *AusNet Services is also extending its network to three regional towns which currently do not have reticulated gas supplies. The townships of Winchelsea, Bannockburn and Avoca are being connected as part of the Victorian Government's Energy for the Regions (ERP) program. A fourth town, Huntly, has already been connected under the ERP program and is included in AusNet Services' baseline consumption. CIE's forecast for these towns is based on the expected connections and construction timelines as outlined in AusNet Services' ERP plans.*[68]

These towns are referred to as 'ERP towns' in CIE's analysis.

AusNet's marginal penetration rate across its existing network is shown in its Access Arrangements in the figure reproduced below.

Figure 4-1: AusNet Services' marginal penetration rate



AusNet's website shows the construction estimates and potential number of connections in each of the ERP towns as follows:[69]

Avoca

- Construction expected from May 2015 to February 2017
- Potential connections: more than 650

Bannockburn

- Construction: expected from May 2015 to March 2018
- Potential connections: more than 1490

Winchelsea

- Construction: completed November 2016
- Potential connections: more than 600

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[68] AusNet – Access Arrangement Information, Section 4.3.1, Page 55

[69] See https://ausnetservices.com.au/en/Community/Major-Projects/Energy-for-the-Regions-Program

CIE shows the expected number of connected customers in each of these towns in the figure below.

5.15 Total customers in ERP towns

	Winchelsea	Bannockburn	Avoca	Total
Postcode	3241	3331	3467	
2016	0	0	0	**0**
2017	150	0	163	**313**
2018	263	373	284	**919**
2019	347	652	376	**1 375**
2020	410	861	444	**1 716**
2021	458	1 019	496	**1 972**
2022	493	1 136	534	**2 164**

Source: CIE.

Comparing the proposed ramp up rates with the marginal penetration rates across the AusNet region, CCP11 questions whether these customer numbers are likely to be achieved. Marginal penetration rates refer to new dwellings where gas appliances might be installed in the construction phase. In contrast, in these ERP towns the potential customers are largely in established dwellings, where take up of gas would mean changing existing appliances, which customers might be more reluctant to do.

As stated by Axiom Economics:

> *Because these regional areas have not previously been connected to gas, additional marketing efforts are likely to be required to encourage customers in these locations to connect to the network and switch their existing electric and/or LPG appliances to natural gas appliances. Encouraging customers in these regional areas to switch to gas is likely to be more difficult than it is in greenfield developments because, unlike new housing developments, customers in these areas will already have electric and/or LPG appliances in place. Additional incentives will therefore be required to encourage these customers to switch.*[70]

CCP11 advises the AER to check what assumptions have been made regarding forecast energy usage or the number of customers expected to be connected as part of the Victorian Government's Energy for the Regions Program, and to confirm the appropriateness of those forecasts. CCP11 advises that regulatory proposals should contain full information to enable stakeholders to make informed submissions on all aspects of the proposals.

1.6 Impact of marketing

All three businesses propose adjustments to their forecasts based on the proposed marketing programs. If the proposed step-changes in opex to allow for marketing are approved, the businesses propose that there will be larger numbers of customers using the gas network, and existing customers will connect more appliances to gas (and hence use more gas per customer connection).

Note: the discussion here does not consider the merits of allowing the marketing step-change. That is considered separately in section 3 of this advice.

Each of the three gas distribution businesses has proposed a step change in operating expenditure to enable them to undertake a joint gas marketing campaign in Victoria.

The joint campaign would focus on the residential segment of the market and seek to:

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[70] Axiom Economics, Consistency of the Victorian gas distribution businesses' joint marketing campaign with rule 91 of the NGR, 2016, p. 18

- counter some of the projected decline in residential consumption that is expected to occur in the next AA period by:
    - encouraging the uptake and use of gas appliances by new and existing customers to try and stem the flow of appliance switching; and
    - retaining existing customers and encouraging new customers to connect; and
- encourage greater take-up of gas in the regional areas, including those areas that have recently been connected through the Energy for the Regions program.[71]

AGN's proposed step change for marketing is smaller than that of AusNet or Multinet, as AGN already had a marketing allowance in its 2013-17 Access Arrangements. Adding that to AGN's proposed step change for 2018-22, all three distribution businesses would have marketing allowances of similar magnitude to each other in their 2018-22 Access Arrangements if their step change proposals for 2018-22 are approved.

Axiom Economics estimates that 5% of appliance rebates will result in new connections.[72]

Axiom Economics appears to have assumed that all rebates will go to customers who would not have otherwise chosen to purchase a gas appliance anyway. Thus the incremental demand is the number of appliance rebates that are given, multiplied by the average load per appliance. This is illustrated, for example, in the following table:[73]

The numbers of rebates to be offered in each year of the AA period have been set to achieve the incremental load target of 270 TJ p.a. (see Table 3.3).

Table 3.3: Relationship between Rebate Numbers and 270 TJ p.a. Target

Input		Central heating	Space heating	Hot water	Total
No. of appliances rebates	(a)	4,500	4,000	7,500	16,000
Average load per appliance	(b)	25 GJ p.a.	15 GJ p.a.	13 GJ p.a.	n.a.
Incremental demand	(c)=(a)x(b)	112.5 TJ p.a.	60 TJ p.a.	97.5 TJ p.a.	270 TJ p.a.

If it had instead been assumed that some of the rebates would go to customers who anyway might have been choosing a gas appliance, then the incremental demand resulting from the rebate scheme might be lower.

The detailed forecasts of effects on the customer numbers and demands of each of the distribution businesses are shown in Appendices to the Axiom Economics report.

[71] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 7.1, page 24

[72] Axiom Economics, Consistency of the Victorian gas distribution businesses' joint marketing campaign with rule 91 of the NGR, 2016, p. 32

[73] Axiom Economics, Consistency of the Victorian gas distribution businesses' joint marketing campaign with rule 91 of the NGR, 2016, p. 29

1.7 CCP11 analysis

Axiom Economics has apparently assumed that all rebates will go to customers who would not have otherwise chosen to purchase a gas appliance. CCP11 considers that it is more likely that some of the rebates would go to customers who anyway might have been choosing a gas appliance, even without the rebate. Thus the incremental demand from the rebate scheme will be lower than forecast. CCP11 advises the AER to check the estimates of incremental demand that result from the appliance rebate schemes that the distribution businesses are proposing.

Given the particular attention to encouraging greater take-up of gas in those areas that have recently been connected through the Energy for the Regions program, we would have expected to see specific analysis of the effects of marketing spend on forecasts in those areas.

1.8 Summary of our advice on forecasts

Demand forecasts in a gas distribution business' regulatory proposal cover forecasts for gas consumption and customer numbers, in the residential, commercial and industrial sectors.

Gas demand forecasts are a key input into determining growth capex and opex forecasts. These are important building blocks in determining the total revenue that a business should be able to recover in the coming regulatory period.

Gas demand forecasts are used in setting reference tariffs (prices), as these are determined by dividing total revenue by the demand forecasts for each tariff component.

Of the three distribution businesses, only AGN stated that its methodology for demand forecasts was influenced by or based on consumer engagement. CCP11 is satisfied that the approach to forecasting that has been adopted by AGN is consistent with the feedback that AGN received in its stakeholder engagement.

New connections drive opex and capex forecasts to service new connections. The net new connections drive total customer numbers and hence total energy usage assumptions.

Recommendations:

- CCP11 questions whether the distribution businesses' methodologies adequately allow for decreases in penetration rates in their forecasts of new connections.
- CCP11 emphases the need for network businesses to set out full details of methodologies in their regulatory proposals to enable stakeholders to provide informed submissions, in the AER's formal consultations which are a key component of the regulatory decision making processes.
- CCP11 recommends that the AER should consider the businesses' forecasts for consumption per commercial customer in 2017 and 2018 in more detail to determine whether they are appropriate forecasts to underlie the forecast revenue requirements of the businesses.
- CCP11 advises the AER to check what assumptions have been made regarding forecast energy usage or the number of customers expected to be connected as part of the Victorian Government's Energy for the Regions Program, and to confirm the appropriateness of those forecasts.
- CCP11 advises the AER to check the estimates of incremental demand that result from the appliance rebate schemes that the distribution businesses are proposing.

2. Capital Expenditure

2.1 Mains Replacement Costs

What the business has proposed

The three distribution NSPs capital expenditure in the coming period is substantial. The proposed programs have the effect of increasing the Regulated Asset Base (RAB) materially over the period of the next Access Arrangement. These are summarised in the following table:

Table 2.1: Gross Capex and RAB Changes

	Capex 2013 – 2017 $Million	Capex 2018 – 2022 $Million	Opening RAB 2018 $Million	Projected RAB## 2022 $Million	Increase in RAB 2018 - 2022
AGN[74]	591	555	1,613.5	1,977.2	~ 22.5%
AusNet[75]	515.1	513.1#	1,575.7	1,837.5	~ 16.6%
Multinet[76]	369.2#	515#	1,190.8#	1,330.5#	~ 10.5%

Real 2017 all others nominal
Based on NSPs' calculations of depreciation, inflation etc.

The RAB is the most significant element in determining the allowable revenue for an NSP. While the RAB diminishes over time because of depreciation, these large proposed capex programs will reflect in tariffs to consumers for decades to come. The embedding of costs on this scale, particularly when the energy market is changing and the future of gas as a core energy supply is questioned, requires serious consideration.

The one of largest elements of the proposed capex programs is mains replacement which is around 30% of proposed capex for AGN and AusNet and fully 50% of proposed capex for Multinet.

Both AGN and AusNet propose spending less capital in the next Access Arrangement period than they are forecasting they will spend by the end of the current period. Both NSPs forecast spending less capex in the current period than was approved by the AER. AGN expects to spend $14 million less (around 2%) than approved by the AER with an $18 million underspend on its allowance for mains replacement.[77] AusNet expects to deliver capex savings of $55.6 million (10% underspend) in current period apparently due to lower than expected customer connections, and unit costs for connections and mains replacement being lower than those approved at the last review.[78] This raises questions as to the accuracy of its cost forecasting which is considered in discussion of unit rates below.

[74] AGN – Final Plan – Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022 pp. 77, 103 & 113
[75] AusNet – Gas Access Arrangement Review 2018-2022 Appendix 5A – Colmar Brunton – Energy Research Summary Report pp.117, 32, & 186
[76] Multinet Gas – 2018 to 2022 Access Arrangement Information – pp. 62, 61, 116 & 117
[77] AGN – Final Plan – Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022 – p.77
[78] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information 16 December 2016 pp. 32 & 37

Multinet expects net capex for the current period to be in line with that approved by the AER. However, in two key areas, mains replacement and new connections a significant overspend is expected. Mains replacement is expected to exceed the approved cost by $20.5 million (17.3%) apparently the result of unit rates proving to be around 8% higher than forecast.[79]

Each of the distribution NSPs is carrying out significant long term projects to replace aged Low Pressure (LP) and Medium Pressure (MP) gas mains (which are generally made of cast iron or unprotected steel so are prone to corrosion) with High Pressure (HP) polyethylene pipelines. The programs include replacement of some aged and deteriorated HP mains and newer but apparently deteriorating polyvinyl (PVC) pipelines.

The three distribution NSPs are at different stages of progress through these programs with forecast completions:
- AGN in 2022;[80]
- AusNet in 2025;[81] and,
- Multinet in 2033.[82]

The widely acknowledged benefits of these programs include:
- Improvement in reliability;
- Reduction in leakage and unaccounted for gas (UAFG) volumes;
- Reduction in risk from the escape of gas;
- Lower operating costs; and
- Extension of the useful life of the distribution network.

These benefits provide a sound starting point to argue that that expenditure on mains replacement might be prudent and efficient. They have an authenticity that is likely to be considered convincing when seeking support for the work. Indeed, consumer engagement by the distribution NSPs has resulted in general support for this investment which is characterised as required to improve the reliability and safety of the network.

However, these programs do involve significant investment in the gas networks at a time when gas prices are rising, there are questions about future supply and competitiveness of gas compared to electricity, energy markets are transforming, new and more efficient options for energy supply and appliances are rolling out and gas usage and connections are reducing. In this environment, critical evaluation of the necessity of mains replacement is required considering matters like the state of deterioration, risk to safety and reliability, and pace and timing of the programs and the impact of this on consumers' bills.

The NSPs use various processes to evaluate the priority and need for mains replacement, undertaking risk assessments and considering factors such as network constraints. However, are the

[79] Multinet Gas – 13.9.1 - Capital Expenditure Overview - Mains Replacement pp. 15 &20
[80] AGN – Final Plan – Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022 p.83
[81] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information 16 December 2016 p.100
[82] Multinet Gas – 2018 to 2022 Access Arrangement Information – p.10

conclusions drawn from these assessments unduly cautious? Could the programs be slowed down with no material increase in risk or reduction in reliability? It is noted that in some cases the safety regulator has endorsed the proposed mains replacement program but this does not necessarily mean that a different program which supported safety and reliability would not also be approved.

In respect of its mains replacement program AusNet notes that:

> *At the completion of financial year 2016/17, the program will have removed all cast iron main being the network's highest risk mains. However the MP network still contains high risk assets including un-protected steel and first generation polyethylene.*[83]

This is recognition that the risk and reliability issues driving mains replacement are subject to a process of prioritisation and balance. It leaves open the question of the scope for flexibility in balancing the requirements of public safety and system reliability with the impact of large scale projects on costs and the flow through to the RAB.

The table below shows Multinet's mains replacement program as approved by the economic regulator compared to actual mains replaced in each regulatory period to the current and Multinet's plan to complete the mains replacement.

Table 2.2: Multinet actual and forecast LP mains decommissioned and HP mains installed under 30 year LP to HP Mains Replacement program (kilometres)[84]

	2003 to 2007	**2008 to 2012**	**2013 to 2017#**	**2018 to 2022***	**2023 to 2033***
Length over period	540	557	527	625	1,331
Length Delivery	537	255	527	n/a	-

Estimated

* Planned

It can be seen from this table that Multinet more than halved its mains replacement program in the 2008 to 2012 Access Arrangement period, presumably accepting that an appropriate level of safety and reliability could be maintained. This raises the question whether Multinet could again slow down the program without an unacceptable increase in risk or deterioration in reliability.

Table 2.2 shows that Multinet plans to increase the size of its mains replacement program in 2018 to 2022 by around 18%. Considering the cost overruns in its mains replacement program in the current period (as noted above, attributed to higher than forecast unit rates), the question arises whether the additional scale can be managed without risk of further cost overruns.

With a total of nearly 1400km of mains replacement proposed by the three distribution NSPs in the 2018 to 2022 period, there is a heavy demand on contractors and equipment that may be contributing to the steeply rising unit rate increases being forecast.

[83] AusNet – Appendix 6E – Mains and Services Strategy – 20161121 Public, p.19

[84] Multinet Gas – 13.9.1 – Capital Expenditure Overview – Mains Replacement – p.11

Unit rates are not easy to examine and compare as they vary depending on factors like location (busy areas need greater traffic and safety management) and urban density (where there will be more dig-ups, service connections etc.). All three distribution NSPs forecast higher unit rates in the next Access Arrangement period for reasons such as working in more built-up areas including Melbourne's CBD. They source estimates from historical experience in like areas and recent tender outcomes.

The appropriateness of unit rate forecasts might be tested by historical comparison, comparing like for like or bottom up estimation. The NSPs' public proposals contain different detail on the unit costs of mains replacement and insufficient detail to carry out any granulated assessment of rates.

As an indication of the movement in unit rates, the following table sets out the size of mains replacement and its cost in the current and forthcoming Access Arrangement periods to show a cost per kilometre over the relevant period.

TABLE 2.3: Current period & next AA period mains replacement scale and cost

	2013 to 2017			2018 to 2022		
	Expected kms	**Expected capex $M**	**Cost per kilometre $'000/km**	**Proposed kms**	**Proposed Capex $M**	**Cost per kilometre $'000/km**
AGN[85]	696	##	-	297	154	518
AusNet[86]	582	108.3	186	465	132.9	285
Multinet[87]	527	133.7	253	625	266.9	427

Amount not available in public proposal

This high level view demonstrates the large increase in mains replacement costs proposed for the next Access Arrangement period.

Multinet notes that its actual unit rate for LP to HP mains replacement capex for the four years 2013 to 2016 will be $16 per metre (or 8 per cent) higher than the AER's allowance and there will be a significant increase in the unit rate in 2017 to $349 per metre, so that the average unit rate over the current period is expected to be $248 per metre.[88] This is $41 per metre, or 20 per cent, higher than the AER's allowance.[89]

AusNet forecasts rates in 2018 will exceed $400/metre for some inner suburbs which involve greater complexity with such things as street opening and traffic management.[90]

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85 AGN – Final Plan – Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022 p.83

86 AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information 16 December 2016 p.121, 123 & 9

87 Multinet Gas – 13.9.1 – Capital Expenditure Overview – Mains Replacement p.15 and Multinet Gas – 2018 to 2022 Access Arrangement Information – pp.61&76

88 N.B. not apparent why this number does not reconcile with the $253 million per kilometre in Table 2.3

89 Multinet Gas – 13.9.1 – Capital Expenditure Overview – Mains Replacement – p.20

90 AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information 16 December 2016 p. 132

AGN notes too that due to increasingly higher standards of safety and environmental management, and increasing overheads associated with these requirements, smaller contractors with lower overheads are less able to compete for this work. AGN suggests that this situation will favour larger contractors (who can spread overheads associated with these obligations over more projects) and it foresees a likely upward pressure on unit prices due the combination of lower competition and these higher compliance standards.[91]

The relentless upward movement in these unit rates for mains replacement must to examined to ensure it is reasonable as must the businesses case justifying the need for mains replacement and the pace and priority of the programs. There may be room for a more measure approach which does not materially impact risk and reliability.

Consumer perspectives

There is no question that consumers will value safety and reliability when it comes to a gas network and all three NSPs note that their consumer engagement processes supported their mains replacement programs:

- Multinet notes "*Strong general support for our LP to HP Mains Replacement capex program given its focus on safety and reliability and for completing this 30-year program*".[92]
- AGN observes "*completing our mains replacement program received particularly strong support through our stakeholder engagement program*".[93]
- AusNet points out "*Our stakeholder engagement activities confirmed that customers value safety as the top priority*".[94]

The challenge is to be sure that the NSPs' mains replacement programs are achieving an appropriate balance between delivering safety and reliability to consumers while prudently investing and managing large scale projects which result in quantum increases in RAB with resultant long term increases in costs to consumers. This issue for consumers is exacerbated in the current environment of reducing gas usage and connections, rising gas prices and rapidly evolving shifts in the options for efficient and affordable energy for consumers (such as solar panels, battery storage and new high efficiency electrical appliances).

AusNet opines on this challenge:

> *The rapidly evolving energy market environment poses a significant challenge to the current approach to depreciation. It is much less certain that customers in 50 or more years from now will be willing to pay for the costs of today's investments. This uncertainty raises important questions regarding inter generational cost recovery and whether the current regulatory approach is sustainable.*
>
> *As such, the assumption regarding the economic benefits of the assets being realised equally over the life of an asset is no longer certain. There has been an ongoing decline in the average*

[91] AGN – Attachment 8.4 – Unit Rates Forecast – December 2016 p.24
[92] Multinet Gas – 2018 to 2022 Access Arrangement Information – p.22
[93] AGN - Final Plan – Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022 p.78
[94] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information 16 December 2016 p. 100

usage of gas amongst customers and a slowing in connection rates. This reflects a range of factors, including warming weather trends, continuous improvements in energy efficiency, customer appliance preferences and the installation of solar equipment in recent years. The implication of these factors is that the straight-line approach to depreciation may not be sustainable into the future. Depending on the impact of these factors, the ongoing (and likely higher rates of) decline in gas usage puts at risk the ability to recover the value of the assets through the continual application of straight-line depreciation.

…

While remaining concerned over future utilisation levels, AusNet Services is proposing to continue to apply the straight-line depreciation method over the next access arrangement period. AusNet Services reiterates that this approach carries some risk, particularly regarding our ability to recover the value of the asset base in an environment of declining network usage.[95]

Both AGN and AusNet give a nod to the existential threat facing gas networks in their acknowledgement of the possible future use of gas distribution networks as hydrogen distribution networks.[96]

In this environment, the long term interest of consumers is to limit investment in the gas network to what is essential to maintain an acceptable level of safety and reliability and to carry out capital programs in a fashion which achieves the best unit costs now and the best cost outcome in the long run.

Recommendations:

- The AER should consider whether the scale of each NSP's mains replacement program reflects a reasonable and balanced assessment of the risk and reliability issues. In the case of Multinet, its past conduct in delaying its mains replacement program suggests that there may be further room for a more measured approach. The step up in scale of its 2018 to 2022 program from the size of the program in current period (where it incurred overruns on the cost allowed by the AER), should give pause to consider whether Multinet's proposed program is too large and at risk of continuing cost overrun.
- The AER should investigate the steep escalation of unit rates for mains replacement work seen in the NSPs' proposals. The sheer scale of the mains replacement planned across all three networks needs to be considered as a possible factor in the rapid escalation in unit rates for these programs. The AER should thoroughly review the proposed unit rates including comparing forecast cost among the three NSPs and benchmarking to similar work in other gas networks.

[95] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information_16 December 2016 p. 184

[96] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information_16 December 2016 p. 275 and AGN - Final Plan – Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022 p.139

2.2 Reduced Asset lives & Accelerated Depreciation

What the business has proposed

The rate at which assets in an NSP's RAB are depreciated impacts the revenue requirement: a shortening of the life accelerates depreciation, increasing the revenue requirement. Therefore, the shortening of asset lives by NSPs in their proposals must be carefully considered to determine whether the asset is life is justifiably less than previously allowed.

All three NSPs propose changing the methodology for depreciation of their assets from a weighted average life of an asset class to year by year tracking. Year by year tracking does more accurately reflect the life of the assets. The AER applied this approach to the South Australian and Victorian electricity distribution businesses in its recent determinations.[97] However, the NSPs have satisfactorily worked with the current depreciation methodology for many years.

The AER should assess the impact of this change and if it results in a material additional revenue requirement in the next period due to an acceleration of depreciation, it should consider whether the change is appropriate particularly at a time when the NSPs' RAB are escalating significantly due to mains replacement projects and the impact of this on consumers' bills.

AusNet[98] and Multinet[99] both propose reducing the standard lives of meter to 15 years from 20 and 30 years respectively. As part of this change, Multinet proposes accelerating the depreciation of its existing meters (which at the beginning of the next period it advises to have a remaining life of 6.62 years[100]) so that they are fully depreciated in the next period. The reason given for this acceleration is to simplify their regulatory asset base for the following Access Arrangement period.

The businesses have justified the reduction in meter asset through various arguments:

- Reflects the current estimate of the technical life of these assets;
- Consistent with the practice of other gas distribution networks as approved by the AER (e.g. AGN in South Australia and Victoria currently has a 15 year meter life); and,
- Consistent with the standard life for new meters for tax purposes approved by the Australian Taxation Office in its ruling.

The first two of these may be compelling enough to justify the impact of higher revenue requirement on consumers. The impact of the proposed change should be assessed and if material the AER should consider options for reducing the impact.

Multinet's proposal to accelerate depreciation of meter assets to make the regulatory asset base simpler[101] for the following period does not ring of being in the interests of consumers. The AER should consider the scale of the impact of Multinet's proposal to accelerate depreciation of meter assets to make the regulatory asset base simpler for the following period. If, as may be likely, the impact is low, the cost may justify the outcome of simplifying Multinet's asset base.

Multinet proposes reducing the asset life of its buildings from 50 year to 35 years. This is justified by Multinet on the basis that it is consistent with the standard life for buildings for tax purposes

[97] Multinet Gas – 2018 to 2022 Access Arrangement Information p.115
[98] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information 16 December 2016 p. 183
[99] Multinet Gas – 2018 to 2022 Access Arrangement Information p.119
[100] Ibid p.125
[101] Ibid p.125

approved by the Australian Taxation Office.[102] The change would however, make Multinet's building asset life lower than its two Victorian gas distribution peers who propose maintaining the building asset lives at their current duration (i.e. AusNet[103] at 40 years and AGN[104] at 50 years).

A reduction in the regulatory building life might be considered if there was evidence that the buildings involved with gas networks do in fact not typically last 50 years. However, Multinet has been satisfied for many years that a 50 year life for its buildings is appropriate and other network owners are satisfied with a 40 to 50 year life for what must be similar buildings. The justification for this change, which would increase Multinet's revenue requirement at the expense of consumers, has not been made.

Consumer perspectives

The impact on consumers of the change by all three NSPs to year by year tracking needs to be considered by the AER. The NSPs have satisfactorily worked with the current depreciation methodology for many years and if this change results in a material additional revenue requirement in the next period due to an acceleration of depreciation, it may not be justified from the perspective of consumers.

Likewise, if there is a material impact on revenue requirements arising from the AusNet and Multinet proposals to reduce the standard lives of meter to 15 years the AER should consider options to alleviate this.

Multinet has justified its proposal to reduce the asset life of its buildings from 50 year to 35 years as aligning regulatory depreciation to tax depreciation schedules.[105] This ignores the real useful life of these assets and the reason proposed does not justify the impact on consumers (no matter how small it might be). Further, the change might later be used to justify earlier replacement of these assets with a new asset that will sit in the RAB and drive the revenue requirement for many years to come. This would not be in the interests of consumers.

Recommendations:

- The AER should examine the impact of the proposed change in the methodology for depreciation of assets from a weighted average life of an asset class to year by year tracking and if there is a material adverse impact on consumers through higher revenue requirement by the NSPs, consider rejecting the proposal.
- The impacts of proposals by AusNet and Multinet to reduce the life of meters (from 20 and 30 years respectively to 15 years) should be assessed by the AER and if there is a material adverse impact on consumers through higher revenue requirement by the NSPs, consider how to mitigate this including rejecting it.
- Multinet's proposed change to building lives from 50 to 35 years should be benchmarked to other NSPs and be rejected if, as it appears, it is not consistent with industry practice and the useful life of such assets.

[102] Ibid p.125
[103] AusNet – Gas Access Arrangement 2018-2022: Access Arrangement Information 16 December 2016 p. 183
[104] AGN – Final Plan – Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022 p.104
[105] Multinet Gas - 2018 to 2022 Access Arrangement Information p.125

3. Operating Expenditure

3.1 Marketing Step Changes

What the businesses have proposed

Each of the three gas distribution businesses has proposed a step change in operating expenditure to undertake a joint gas marketing campaign in Victoria.

The joint campaign would focus on the residential segment of the market and seek to:

- counter some of the projected decline in residential consumption that is expected to occur in the next AA period by:
    - encouraging the uptake and use of gas appliances by new and existing customers to try and stem the flow of appliance switching; and
    - retaining existing customers and encouraging new customers to connect; and
- encourage greater take-up of gas in the regional areas, including those areas that have recently been connected through the Energy for the Regions program.[106]

Table 3.1.1 presents details of the proposed step changes in expenditure.

Table 3.1.1 Proposed Marketing Step Changes

Business	Proposed Step Change
AGN	$5 million[107]
AusNet	$21.8 million[108]
Multinet	$23.3 million[109]

It should be noted that the AGN 2013-2017 Victorian AA Review resulted in approval of an allowance of $18.28 million for marketing.[110] Therefore, AGN's base year operating expenditure already contains a significant component of proposed expenditure on marketing. AGN reports that its total expenditure on the joint marketing program over the next period is forecast to be $21.2 million.[111]

The proposed marketing campaign is made up of three main elements:

- an appliance rebate program, which would provide residential customers in metropolitan and regional areas a financial incentive to purchase gas heating and hot water systems to encourage the uptake of gas appliances and new connections to the network (i.e. by reducing the upfront costs of acquiring appliances and improve the relative competitiveness of gas versus electric and/or LPG appliances);

[106] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 7.1, page 24
[107] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 70
[108] AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, page 165
[109] Multinet Gas – 2018 to 2022 Access Arrangement Information, page 100
[110] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 7.1, Figure 2.5
[111] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 7.1, Figure 3.5

- an advertising campaign, which would use a combination of television, newspapers, radio, outdoor and digital media to:
    - promote the use of natural gas to residential customers in both metropolitan and regional areas, with more targeted campaigns to be used in newly connected regional areas;
    - reinforce the benefits of using gas appliances; and
    - promote the appliance rebate scheme; and
- industry representation, which would promote the use of natural gas to intermediaries that can influence a residential customer's decision to connect to the distribution networks (e.g. builders, developers, plumbers, gas fitters, appliance retailers and manufacturers).[112]

Forecast expenditure for each of these elements over the AA period is shown in the table below.

Table 3.1.2

Marketing Campaign Component	Proposed Expenditure[113]
Appliance Rebate Program	$42.5 million
Advertising Campaign	$22.5 million
Industry Representation	$3.25 million

Consumer perspectives

There is a diversity of views regarding the long term future of gas networks for residential and small business consumers. A continuing downward trend in both gas penetration rates and consumption per connection is generally attributed to the emergence of more energy-efficient electric appliances, as well as the adoption of newer technologies such as solar PV and batteries. Some hold that the gas networks have a strong role to play in a carbon-constrained future, while others consider that the industry is in long-term decline. It is recognised that government policy settings will have a significant impact in this area.

In preparing this Advice, CCP11 sought views on the proposed marketing campaign from consumer representatives. Responses included:

- *Marketing is a cost of doing business*
- *We need to see the net benefit to connect new customers*
- *They need to show that the money spent is in the long term interest of consumers. For existing consumers and those who connect through marketing – is it cost effective for them? Is the marketing clear and accurate? Can marketing be funded outside the regulated revenue allowance?*
- *Gas is not a fuel of choice for a large percentage of the population e.g. renters, low income consumers. Marketing campaigns are not justified.*
- *Marketing is an unfair transfer of funds among current customers.*

One consumer representative commented that the marketing campaign should be better targeted to promote more off peak usage of gas when the network was under-utilised, to improve network

[112] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 7.1, page 25

[113] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 7.1, page 34

utilisation, and to enable more consumers to benefit from lower priced gas, rather than at peak times when the network was already well utilised, and it might just be encouraging customers to use more gas when it is most expensive. Such targeting has not been contemplated as part of the proposed campaign.

In its research report 'Are we still Cooking with Gas?' published in November 2014, the Alternative Technology Association concluded that for all NEM jurisdictions:

> *It is not cost effective to connect a new home to mains gas when efficient electric appliances are an option.*[114]

Marketing of gas and provision of appliance rebates may not be in the long term interests of individual consumers under these circumstances.

By its nature, the proposed marketing campaign in large part represents a transfer of wealth (or cross subsidy) from one group of Victorian residential gas consumers to another. It is therefore imperative that the proposed expenditure by each network business has the support of its residential customers.

From its Stakeholder Engagement Program, AGN reported that:

> *Stakeholders were supportive of AGN conducting a similar marketing program to that in South Australia. Support was, however, dependent on AGN demonstrating that the benefits from marketing, including from increased demand, exceeded the costs.*
>
> *Stakeholders also emphasised the importance of collaborating with the other Victorian networks to deliver an efficient marketing program.*[115]

Participants in AusNet's Energy Research Study expressed a view that:

> *The options of paying more now and less in future, or of today's customers paying more so that those in future can pay less are difficult for customers to form a view on. Those who were able to give an opinion were generally resistant to this approach due to both uncertainty about the future and a broader preference for even distribution of costs.*[116]

From Multinet's Customer and Stakeholder Reference Group it was reported that:

> *[There was] some feedback that [members] would need to be further convinced of the need for, and benefits of, any marketing step change before supporting it.*[117]

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[114] Alternative Technology Association – Are we still Cooking with Gas?, page 26
[115] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 64
[116] AusNet Services – Energy Research Study 1: Report, page 45
[117] Multinet Gas – Stakeholder Engagement Overview, page 22

In our view, neither AGN, AusNet nor Multinet has demonstrated that they have the support of their customers for the proposed marketing expenditure.

CCP position

These proposed marketing step changes should be considered in the light of recent regulatory decisions. Regulated gas distribution businesses that have carried out marketing and had their allowances approved by the AER and the ERA in the last five years include JGN, ATCO Gas, AGN, Allgas and ActewAGL.[118] Marketing allowances have now been approved for regulated gas network businesses in all other Australian jurisdictions,[119] and are included in their base year expenditures. Marketing may now be considered to have become a standard business cost for gas businesses.

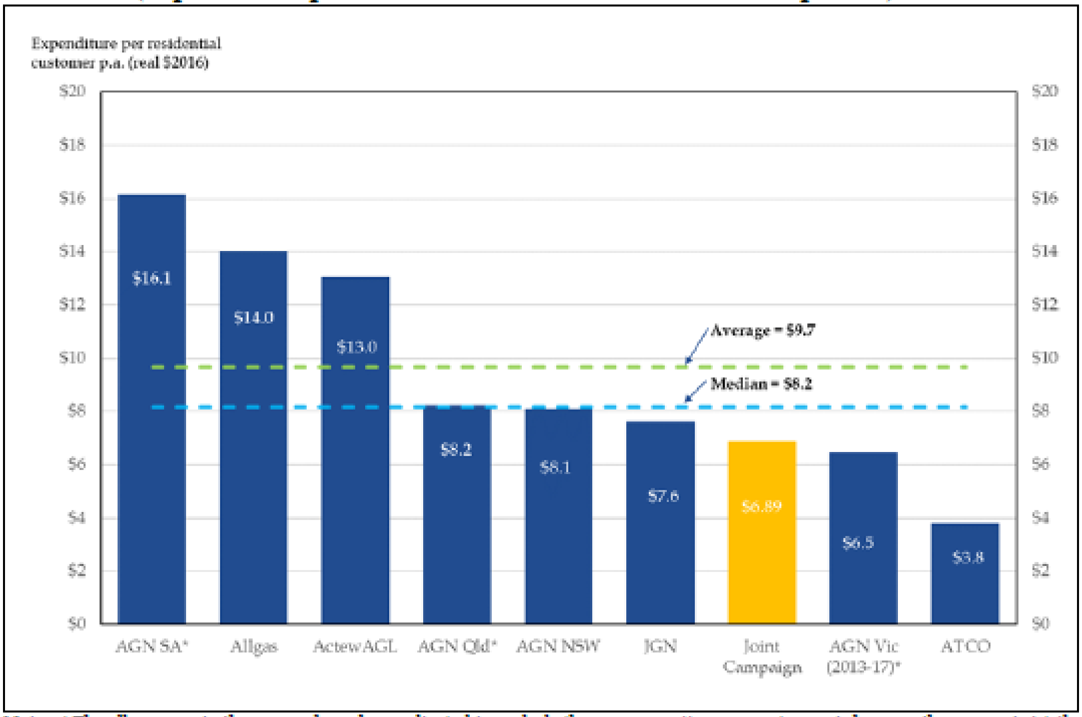
At a cost of $6.89 p.a. per residential customer over the AA period, CCP11 considers that in scope and scale, the proposed joint marketing program involving AGN, AusNet and Multinet and the related expenditure appears to be broadly similar to and consistent with previously approved programs and expenditures. Refer to the figure below from the Axiom report.[120]

[118] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 7.1, page 2.

[119] See: AER, Final Decision: Jemena Gas Networks AA 2015-2020, Attachment 7, June 2015, p. 7-24, JGN, ERA, Final Decision: Proposed Revisions to the AA for the Mid-West and South-West Gas Distribution Systems, 30 June 2015, pp. 47 and 97, AER, Final Decision: Envestra AA proposal for the SA gas network, June 2011, pp. 83 and 106, AER, Final Decision: Envestra AA proposal for the Qld gas network, June 2011, pp. 76 and 95, AER, Final Decision: Allgas AA proposal for the Qld gas network, June 2011, pp. 48, 51 and 67, AER, Final Decision: AA proposal for the ACT, Queanbeyan and Palerang gas distribution network, March 2010, pp. 100 and 146, AER, AA proposal for the Wagga Wagga natural gas distribution network, March 2010, pp. 55 and 66.

[120] Axiom Economics – Consistency of the Victorian gas distribution businesses' joint marketing campaign with rule 91 of the NGR, page 36

Figure 3.4: Joint Marketing Campaign vs Other DBs Approved Allowances (expenditure per residential customer over the AA period)



Notes * The allowances in these cases have been adjusted to exclude the gas connection processing costs because they are not strictly marketing costs and are not included in the other distribution businesses' marketing allowances

CCP7 has previously provided advice to the AER regarding expenditure on marketing by a gas network business.[121] CCP11 holds the same view. That is, from a customer perspective, we suggest that the AER should consider whether it is prudent to encourage new customers to connect to the gas network, and existing customers to renew gas appliances, at a time when wholesale gas prices, and hence retail gas prices are predicted to rise substantially.

Marketing is not a regulatory obligation, and expenditure on marketing does not directly relate to the provision of a safe, reliable and efficient supply of energy to consumers. Consequently, there is a need for proposed expenditure on marketing to be subject to additional scrutiny. Consistent with the opinions expressed by consumer representatives, we are not yet convinced that such expenditure is prudent.

Business Case

Stakeholder feedback has clearly identified the need for a business case to demonstrate the benefits to consumers of the proposed marketing program. As part of their proposals, the businesses have submitted a document which analyses the proposed expenditure from a regulatory perspective, but fails to provide a consumer-focused business case.[122] It does not appear that this document has been the subject of discussion between the businesses and their stakeholders. CCP11 would have expected the businesses to have engaged with their stakeholders on this issue.

[121] AER CCP – Advice to AER from Consumer Challenge Panel sub-panel 7 regarding Jemena Gas Networks (NSW) Access Arrangement 2015-2020 Proposal, page 10

[122] Axiom Economics – Consistency of the Victorian gas distribution businesses' joint marketing campaign with rule 91 of the NGR

Over and above the analysis provided by Axiom, we consider that a consumer-focused business case would need to include:

- demonstration of the effectiveness of similar marketing programs undertaken in other jurisdictions;
- explicit forecast of the payback period for the consumers' investment in marketing;
- analysis of sensitivity to variations in appliance switching behaviour by consumers; and
- analysis of sensitivity to changes in wholesale gas prices.

Treatment of Marketing Allowances

The AER published an *Expenditure forecast assessment guideline* together with an explanatory statement in November 2013.[123] The Guideline sets out the AER's intended approach to assessing opex forecasts including step changes. This document explicitly addresses expenditure for electricity distribution networks, so it is unclear whether the principles embodied in the document apply equally to gas distribution networks. Given its electricity heritage, the document is silent on opex expenditure associated with what might be considered appropriate, though discretionary, activity for a business competing for market share where the customer has a choice of fuel. The fact that the Guideline was released prior to the AER's most recent approval of a marketing step change allowance for a gas distribution network business (Jemena Gas Networks AA 2015-2020, June 2015) suggests that this type of expenditure is consistent with the principles of the Guideline, or that the Guideline does not apply to gas businesses.

In the past, expenditure on marketing has been approved as a step change and incorporated into base opex for subsequent regulatory periods. We consider that this is not appropriate for expenditure on marketing for the following reasons:

- There is a high degree of uncertainty around the future level of use of gas appliances by consumers. In 5 years' time, the extent and type of marketing contemplated by the gas network business may be completely different from the situation today;
- There is no indication in the proposals that it is intended to conduct the same level of marketing activity in subsequent AA periods, so the allowance should not form part of base opex. In fact, the modelling by Axiom appears to assume that the marketing expenditure will not be continued in the subsequent AA period.[124] Any similar proposal for the next period should be separately identified.
- Consumers are concerned with the efficiency and extent to which the proposed expenditure will be carried out. The allowance allocated to the appliance rebate program in particular is intended to be a direct pass through of funds from the network business to consumers. Any underspend should not be included in the business's Efficiency Benefit Sharing Scheme (EBSS).

As indicated previously, AGN's base year operating expenditure already contains a significant component of proposed expenditure on marketing as a result of its 2013-2017 Victorian AA Review. An allowance of approximately $18.28 million was approved at that time. For consistency, we

[123] AER – *Expenditure Forecast Assessment Guideline for Electricity Distribution*, November 2013.
[124] See Axiom Economics – Consistency of the Victorian gas distribution businesses' joint marketing campaign with rule 91 of the NGR, footnotes 85, 93, 102

suggest that the marketing allowance that is already included in AGN's base opex should be treated in the same way as the new step change requests.

Recommendations:

- In making a decision on the proposed marketing step changes, the AER:
  - gives consideration to the level of demonstrated stakeholder support, and
  - assesses whether it is prudent to encourage new customers to connect to the gas network, and existing customers to renew gas appliances, at a time when wholesale gas prices, and hence retail gas prices are predicted to rise substantially.
- Should marketing step changes be approved, the AER reviews whether it is appropriate to include marketing expenditure within base opex for subsequent regulatory periods, and whether marketing expenditure should be excluded from the EBSS.
- For consistency, we recommend that that the marketing allowance that is already included in AGN's base opex should be treated in the same way as the new step change requests.

3.2 Opex Step Change – Ring-main pigging (AusNet)

What the business has proposed

AusNet is seeking to include an opex step change for the in-line inspection of part of its gas transmission pipeline in 2021 at a forecast cost of $0.41 million.[125] AusNet Services reports that it:

> *undertakes intelligent assessment of the pipeline structure at 10-yearly intervals to monitor pipeline integrity, ensuring continuity of supply and maintaining public safety. The last inspection was undertaken in 2009 with specific funding approved by the AER. AusNet Services will carry out inspection in 2021 instead of 2019 to accommodate the pipeline relocation works required by the proposed Metro Tunnel works being carried out by the Melbourne Metro Rail Authority.*[126]

As was the case in 2009, the pigging operation will be carried out in collaboration with AGN and Multinet who are each owners of portions of the 82km long transmission pipeline system. The length of pipeline owned by each company is shown in the following table:[127]

[125] AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, pages 174-177

[126] AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, page 174

[127] AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, Appendix 7C, page 4

Table 1: Sections of Ringmain owned by Victorian Gas Transmission Licensees

Licensee	Ownership Length (km)
APA Group	0.6 km
MultiNet Gas	36.8 km
Australian Gas Network	19.7 km
AusNet Services	25.1 km

In 2009, AusNet Services' share of the direct cost was $297,837 (excl. GST). Considering that similar costs will be incurred for the proposed pigging in 2021-22 and with a 2.5% p.a. rate of inflation the direct costs in $2016 are estimated to be $354,034.[128] Indirect costs will bring the estimated total cost of the work to $0.41 million.

As mentioned above, the last pipeline inspection through intelligent pigging was performed in 2009. AusNet claims that as a consequence:

> *this cost is not included in AusNet Services' base year costs, but is necessary expenditure to meet regulatory obligations in the next period. The timing of these inspections means they unlikely to ever be captured in base year costs, as they only occur every 10 years, early in an access arrangement period.*[129]

CCP position

CCP11 understand that pigging is an essential part of a gas network's monitoring of pipeline integrity, and do not challenge the need for the work to be done. AusNet claims that the cost of the activity is not captured in base year costs because pigging is carried out on a 10 year cycle. We suggest that there are many other routine maintenance activities that are performed on a time based cycle. It can be argued that there are some activities that were carried out in the current period, and hence are included in base opex, but will not be required to be carried out in the next period and therefore should be removed from base opex for the next period. On balance, we don't believe there is a need for special treatment of this project.

We therefore consider that ring-main pigging should not be accepted as an opex step change for AusNet. There appears to be no reason why AusNet's forecast costs for the project should be treated differently from those of the other businesses. The fact that the other participants in the project (AGN and Multinet) have not submitted this joint project as a step change proposal supports that view.

[128] AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, Appendix 7C, page 7
[129] AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, page 177

Recommendation:

- The AER should not accept the proposed ring-main pigging project as an opex step change.

4. Incentive Schemes

4.1 Capital Efficiency Sharing Scheme

What the businesses have proposed

Both AGN and AusNet have proposed the introduction of a new Capital Efficiency Sharing Scheme (CESS).[130] Multinet has elected not to include a CESS in its AA proposal on the basis that:

> *We consider that there is no justification for introducing either a Capital Expenditure Sharing Scheme or a Customer Service Incentive Scheme in the forthcoming Access Arrangement period as there is no existing "problem" that needs to be addressed. Any such schemes should only be introduced on a national, rather than on a one-off, basis for individual jurisdictions.*[131]

AGN previously proposed a CESS as part of its 2016-2021 Gas Access Arrangement for the South Australian gas network. This was not accepted by the AER. AGN reports that:

> *The AER in its Final Decision recognised the potential benefits of a CESS, but decided against its introduction on the basis that:*
> *• any changes to the incentive arrangements applying to gas require further consideration and consultation with industry and stakeholders; and*
> *• there is no counterbalancing financial incentive for AGN to maintain or improve network reliability and service.*[132]

Since the AER's decision in May 2016, AGN and AusNet have worked jointly with the assistance of consultant Farrier Swier Consulting (FSC) to consult with stakeholders and design a scheme referred to as a Contingent CESS which is intended to address the concerns identified by the AER at that time. The same scheme is proposed by both businesses.

Features of the proposed Contingent CESS include:

- Making payment of rewards contingent on meeting specified network performance standards;
- An asymmetric approach in that it does not inflate a reward if performance targets are exceeded, but discounts a reward if performance targets are not met ;
- Sharing of benefits in the same proportion as the EBSS (ie 30% to business and 70% to network); and

[130] See AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 133 and AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, page 268

[131] Multinet Gas – 2018 to 2022 Access Arrangement Information, page 134

[132] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 128

- Any penalty earned under the CESS is not discounted if network performance is exceeded.

In its Statement of Intent 2016-17, the AER flagged an intention to progress work to extend the capital expenditure sharing scheme to gas.[133] The AER's 'Capital expenditure sharing scheme for gas distribution network service providers' Information Paper was released in December 2016. As this paper was released after the businesses had finalised their proposals, it has not been taken into account by either AGN or AusNet. AGN however has signalled its intention to engage further with the AER and stakeholders on the proposed contingent CESS leading into the AER's Draft Decision.[134]

Consumer perspectives

Stakeholder engagement on incentive schemes for gas distribution network businesses was carried out jointly by the three businesses, with the assistance of FSC. The engagement comprised:

- Preparation and distribution of an Issues Paper on incentive mechanisms;
- A Stakeholder Forum;
- Request for Stakeholder Submissions on the Issues Paper and Forum;
- Preparation of a Findings Report.

Unfortunately there was only one submission received from a consumer organisation, the Consumer Utilities Advocacy Centre (CUAC). However, the issues raised by CUAC were particularly relevant for all consumers. CUAC believes there is merit in a mechanism to incentivise gas distributors to invest efficiently across all years of the revenue period. However, they highlighted several areas of concern. These included:

- a potentially perverse incentive for the deferral of capex to future revenue periods;
- capex forecasts are likely to be biased upward due to information asymmetry between regulator and business;
- the significant time-lag between deferred capex and potentially adverse consequences in service quality; and
- consumers not being best placed to manage the forecast risks, while gas distributors have access to a variety of regulatory mechanisms to address significant forecast risks.

CUAC proposed the adoption of an asymmetrical expenditure sharing scheme, and recommended clarifying the impact on customers' bills.[135]

AGN's stakeholder feedback revealed that:

> *There was general stakeholder support for strengthening the incentive arrangements, particularly in relation to the introduction of a CESS.*
> and
> *There was also support for an asymmetric scheme based on our feedback that customers were not willing to pay for improved reliability.*[136]

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[133] AER – Statement of Intent 2016-17, page 8

[134] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 136

[135] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 11.4, CUAC Submission

From its stakeholder consultation, AusNet reported that:

> *There was qualified support for introducing a CESS. The primary concern with introducing a CESS related to unintended consequences, in particular incentives for inefficient capex deferral.*[137]

CCP position

The efficiency of capital expenditure is of critical importance to consumers. Table 2.1: **Gross Capex and RAB Changes** highlights the proposed increases in each business's regulated asset base between 2018 and 2022. Proposed increases range from 10.5% to 22.5% over the next 5 years. Increases of this magnitude have the effect of locking in ongoing tariff increases for network customers leading to long term financial pressure. 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 RAB levels.

CCP8 previously expressed support for a CESS for AGN's South Australian gas network.

> *Where an EBSS is in place, we support the application of a complementary CESS. We consider that the EBSS and the CESS work together to ensure that there no bias towards one form of expenditure over another.*[138]

CCP8 agreed with the AER that a lack of standard quantifiable service reliability measures for gas distribution businesses meant that it was not appropriate to proceed with a CESS at that time.[139]

We note the progress that has subsequently been made on the design of a CESS that incorporates a set of standard performance measures, and the comprehensive stakeholder engagement program undertaken by the three network businesses and involving the AER. Consumer representatives have welcomed the consultative nature and transparency of this process. Following the recent release of the AER Information Paper, we encourage the AER, AGN and AusNet to continue working with stakeholders with a view to finalising a Contingent CESS design leading into the Draft Decision. As the proposed scheme is new to the gas sector, and given the concerns raised by stakeholders regarding unintended consequences, we agree with the AER that a cautious approach should be taken in the introduction of a new CESS.[140] We suggest that that the final form of any new CESS should be subject to a full stakeholder engagement process so that consumers have input on the actual scheme adopted.

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[136] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Table 11.1

[137] AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, page 265

[138] Consumer Challenge Panel subpanel 8 – Advice to AER from CCP8 regarding AGN's (SA) Access Arrangement 2016 - 21 , August 2015, page 15

[139] Consumer Challenge Panel subpanel 8 – Supplementary Advice to AER from Consumer Challenge Panel – Australian Gas Networks (SA) – 31 March 2016, page 5

[140] AER – Capital expenditure sharing scheme for gas distribution network service providers – Information Paper, page 14

Contingent CESS Design

CCP11 supports the following aspects of the Contingent CESS design:

- an asymmetric scheme which ensures that consumers do not pay any more for improvements in reliability;
- consistent application of the 30%/70% benefit sharing ratio across the EBSS and the CESS;
- a single uniform CESS;
- service measures that are directly related to capex expenditure on the network; and
- adjustments for inefficient capex deferral into the next period.

Further consideration of the following issues is required.

a) As identified by CUAC, there can be a significant time-lag between deferred capex and potentially adverse consequences in service quality. A large underspend in the final years of a regulatory period is unlikely to deliver service quality impacts during the regulatory determination. A method of assessing service quality impacts over a longer time period is required. It is not apparent how this has been factored in to the proposed scheme.

b) Capex programs for gas network businesses are heavily dominated by mains replacement programs and new connections. With the introduction of a CESS, inefficient deferral of such capex is the most significant risk for consumers. As identified in the AER Information Paper, consumers will potentially be required to pay three times for deferred capex:

   - in the ex-ante capex allowance;
   - in the return on the unspent capex provided by the CESS; and
   - if the same (deferred) capital projects are proposed in the next review.[141]

   The AER Information Paper suggests a volumetric adjustment option to reduce the incentive to defer capex between regulatory periods.[142] We consider that a sharper signal is required to provide a stronger disincentive for this outcome. A volumetric 'hurdle' should be considered for these capex categories such that if a certain volume of activity (i.e. km of mains replacement, no. of connections) is not achieved, then no benefit is earned.

c) It is important that the capex and the service measures have a direct relationship. Consequently, it is our view that non-network capex should be excluded from the scheme.

Consistent with the views expressed by CUAC, we consider that there is a deficiency in the scheme design analysis in that it has not modelled or identified the expected financial impacts for consumers. We encourage the businesses to identify the range of possible outcomes for consumers and the associated financial impacts as part of the design of any benefit sharing scheme.

Recommendations:

- The AER, AGN and AusNet continue working with stakeholders with a view to finalising a Contingent CESS design leading into the Draft Decision.
- Businesses be requested to identify the financial impacts for consumers as part of the design of the proposed Contingent CESS.

[141] AER – Capital expenditure sharing scheme for gas distribution network service providers – Information Paper, page 14

[142] AER – Capital expenditure sharing scheme for gas distribution network service providers – Information Paper, page 16

- The final form of any new CESS should be subject to a full stakeholder engagement process so that consumers have input on the actual scheme adopted.

4.2 Network Innovation Scheme

What the businesses have proposed

All three distribution businesses have proposed a form of Network Innovation Scheme (NIS).[143] Although all businesses have based their proposals on Ofgem's network innovation scheme for gas distribution businesses in the UK, the proposals differ in several respects.

AGN is proposing a scheme which is similar in intent to the Demand Management Incentive Scheme (DMIS) for electricity networks. The proposed scheme involves:

- AGN seeking approval from the AER for each innovation project prior to project commencement. Projects to be assessed against a set of specified criteria;
- Up to $1 million per annum could be approved, but AGN could only recover actual expenditure; and
- Approved expenditure on innovation is excluded from the EBSS and CESS.

The proposed criteria are as follows:[144]

- the project must have the potential to have a direct impact on our operations and involve the research, development or demonstration of 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;
- the project must have the potential to develop learning that can be applied by other gas distributors in Australia;
- the project must have the potential to deliver net financial benefits and/or improvements in our service to gas customers; and
- any intellectual property developed must be made available to third parties.

AusNet proposes a slightly different arrangement as follows:[145]

- An ex-post Network Innovation Allowance to be provided as a fixed amount of revenue at the completion of the regulatory control period. Therefore customers do not pay until after the allowance is spent.
- The total amount recoverable under the 'use it or lose it' allowance within a regulatory control period is capped at an amount broadly proportionate to the average annual revenue requirement in the current regulatory period.
- The Network Innovation Allowance be provided on a cost recovery basis.

[143] See AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 138; AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, page 272; Multinet Gas – 2018 to 2022 Access Arrangement Information, page 135
[144] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, page 138
[145] AusNet Services – Gas Access Arrangement Review 2018-2022 Access Arrangement Information, page 274

AusNet has not nominated an annual cap, but has submitted 4 projects for inclusion at a total cost of $4.9 million over the period.

The project assessment criteria proposed by AusNet are similar to those proposed by AGN, but differ in the following respects:

- Focus on new equipment which is unproven in Australia
- Do not include criteria associated with a reduction in carbon intensity
- Do not include criteria associated with improvements in customer service
- Do not include a requirement that any intellectual property developed must be made available to third parties
- Identify that there must be no duplication of costs – costs recovered under the NIS: (a) must not be recoverable under any other jurisdictional incentive scheme (b) must not be recoverable under any other Commonwealth or State/Territory Government scheme and (c) must not be included in forecast capital or operating expenditure approved in the distribution determination for the regulatory control period under which the NIS applies, or under any other incentive scheme in that determination.

Multinet has proposed the introduction of a Gas Network Innovation Competition (NIC) structured similarly to the arrangement that Ofgem has implemented for the gas distributors in the UK.[146] Multinet's proposed objectives include reducing costs or improving performance outcomes, including in relation to safety, reliability, customer service, and workforce renewal. Full details are not provided. However, Multinet has indicated a willingness to work with the AER to develop how a Gas NIC could be introduced for the Victorian gas distributors in the forthcoming Access Arrangement period.

Consumer perspectives

In the Findings Report - Victorian Gas Distribution Businesses' consultation on Incentive Mechanisms 2018 to 2022 Gas Access Arrangement Review, Farrier Swier Consulting concluded that:

> *There was support for the idea that network innovation promotes the long-term interests of consumers. Some stakeholders considered that specific measures, such as a Network Innovation Scheme (NIS) were required, while others thought that incentives created through a CESS and the Efficiency Benefit Sharing Scheme (EBSS) might be adequate.*[147]

CUAC expressed a view that:

> *CUAC recognises the value of innovation to discover further efficiencies to deliver benefits for distributors and their customers through lower prices.*[148]
>
> and

[146] Multinet Gas – 2018 to 2022 Access Arrangement Information, page 135

[147] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 11.3, page 4

[148] AGN – Final Plan, Access Arrangement Information for our Victorian and Albury natural gas distribution networks: 2018 – 2022, Attachment 11.4, CUAC Submission

Efficient savings delivered through a CESS or EBSS might provide an adequate mechanism to finance innovation, which then provides the opportunity for a business to discover further efficiencies, realise these efficiencies in subsequent periods and benefit through underspending their revenue allowance.

CCP position

In principle, CCP11 recognises that the long term interests of consumers are well served by innovation which drives productivity improvements and maintains downward pressure on prices. We consider that it is important for a business to invest in innovation so that efficiency benefits can be shared by consumers.

As Ofgem already has a well-established incentive scheme for gas distribution businesses, we support the approach of applying relevant aspects of that scheme in the Australian context, rather that creating a new scheme from scratch. As with the other incentive schemes for both Australian electricity and gas networks, we consider that it is appropriate to develop a single scheme that applies to all businesses rather than creating tailored schemes for individual businesses. Therefore, we suggest that at this stage the proposed NIS's are not sufficiently aligned across the three businesses to enable implementation of a common scheme for the next AA period.

We agree that projects which target carbon reduction in the gas networks could be of long term benefit to gas consumers as well as the entire Australian community. We are concerned, however, at the prospect of placing the burden of funding such projects on the customers of a particular gas network and question whether this would be consistent with the NGO. We consider that those projects which are prompted by national or jurisdictional emissions targets are more properly funded by national bodies such as ARENA, with the costs allocated more broadly across the community. In addition, consideration must be given to what contribution the asset owner should make to these initiatives.

Our observations on features of the proposed schemes are as follows:

- It is imperative that the intellectual property that is developed through innovation projects funded by consumers as part of regulatory allowances is shared freely with other network businesses, industry, academics, consumer bodies and other interested parties. As in the UK model, formal arrangements for ensuring that this outcome is delivered would form an important element of the scheme.
- To encourage efficient application of resources, priority should be given to projects and arrangements which demonstrate collaborative behaviour and encourage synergies between businesses, rather than each working in a silo.
- We are concerned at the prospect that NIS funds (provided by consumers) will be sought for the highly risky, less commercially viable projects which are more likely to fail, whereas projects with a higher chance of success will be funded 'in house', and the intellectual property exploited to the sole benefit of the network concerned.
- We question whether the AER is currently resourced or has the appropriate expertise to make informed judgements about the feasibility of proposed innovation projects.

- The businesses can currently propose capex which promotes innovation in their proposals, and this process has been exercised recently.[149] It is not clear how this mechanism would interact with the proposed NIS.
- Any NIS design must clearly specify how benefits will accrue to consumers.

Recommendations:

- If a Network Innovation Scheme is considered appropriate, then a single common scheme is adopted for all gas distribution businesses
- The AER consider whether the proposed Network Innovation Schemes are sufficiently mature to be implemented for the next AA period.
- The final form of any new Network Innovation Scheme should be subject to a full stakeholder engagement process so that consumers have input on the actual scheme adopted.

5. Rate of Return and Inflation

5.1 Cost of debt and inflation

CCP11 notes that the rate of return issues regarding the return on debt and inflation are matters still before the Courts.

AusNet and Multinet have adopted a different approach to the return on debt and the estimation of inflation to that adopted in the AER Guideline. At this stage, CCP11 would prefer to postpone discussion on these until the Court processes are reasonably finalised. The AER is intending to publish a paper on the forecasting of inflation in the near future, and members of CCP11 anticipate participating in that process.

However, the evidence provided to date supports the AER's approach on the cost of debt and inflation.

With respect to the return on debt, the differences are small and relate to the selection of the source of information on yields on 10-year BBB corporate bonds. AusNet is recommending that the AER rely on the RBA series only, while Multinet is suggesting that the AER include the series produced by Thomas Reuters in addition to the RBA and Bloomberg series. AusNet suggests it is comfortable with Multinet's proposal.

In this instance, the practical effects of these proposals on the return on debt are small. The return on debt proposed by AGN in line with the AER's approach is 4.42 per cent. AusNet and Multinet are proposing a return on debt of 4.52 and 4.67 per cent respectively.

However, the selection of a bonds series for estimating the efficient return on debt has been long debated and there is significant risk of introducing bias in changing the series from one determination to the other. As a result, it is recommended that the AER not adopt these changes but consider the proposals when reviewing the Rate of Return Guideline in 2017-18.

[149] AER – Capital expenditure sharing scheme for gas distribution network service providers – Information Paper, page 12

With respect to the forecast of inflation, AGN has applied a forecast of 1.6 per cent, AusNet has applied a forecast of 1.65 per cent, and Multinet has adopted an inflation rate of 1.68 per cent. While there are some differences in approach between the businesses, the basic idea is to forecast inflation rates by considering the difference between indexed and non-indexed long-term bonds.

The AER uses a different approach. It combines short-term market forecasts of inflation with long-term inflation based on the mid-point of the RBA's target inflation, namely 2.5 per cent. The result is a weighted inflation forecast of around 2.3 to 2.4 per cent. The use of a lower inflation figure compared to the AER's approach for the regulatory period will result in higher revenue allowances.

The AER's approach is to consider both the near term inflation forecast and the RBA's long-term inflation target. This is currently resulting in an inflation forecast averaged over the 5-year regulatory term of 2.3-2.4 per cent.

Figure 5.1 includes the latest forecast of inflation by the RBA and the forecasts largely accord with the AER's approach of distinguishing short-term events and long-term targets. Given a constant inflation over the five years, the RBA's most recent forecasts are reasonably consistent with the AER's approach.

While inflation is low at the moment, it is reasonable to expect a return to the RBA target levels over the course of the regulatory period. The AER's approach allows the inclusion of the short-term low rates with the longer-term trend.

Figure 5.1: RBA forecast of inflation

Table 6.1: Output Growth and Inflation Forecasts[(a)]

Per cent

	Year-ended					
	Dec 2016	Jun 2017	Dec 2017	Jun 2018	Dec 2018	Jun 2019
GDP growth	2	1½–2½	2½–3½	2½–3½	2¾–3¾	2¾–3¾
Unemployment rate[(b)]	5.8	5¾	5–6	5–6	5–6	5–6
CPI inflation	1.5	2	1½–2½	1½–2½	1½–2½	2–3
Underlying inflation	1.6	1¾	1½–2½	1½–2½	1½–2½	2–3
	Year-average					
	2016	2016/17	2017	2017/18	2018	2018/19
GDP growth	2¼	1½–2½	2–3	2½–3½	2½–3½	2¾–3¾

(a) Technical assumptions include A$ at US$0.76, TWI at 66 and Brent crude oil price at US$56 per barrel; shaded regions are historical data
(b) Rate at end of period
Sources: ABS; RBA

Source: RBA, *Statement of Monetary Policy,* February 2017, Table 6.1

CCP11 acknowledges the issues that the inflation forecast in the current Access Arrangement has raised. However, a change to the AER's methodology is not supported at this stage. Regulatory consistency is important, and in the absence of evidence that the current low inflation is likely to be sustained, it is prudent to retain the current approach by the AER. However, it is noted that the AER is preparing a paper to be published soon on inflation, and CCP11 would welcome participating in that discussion. Any changes should be properly debated and perhaps if reasonable, included in the future Rate of Return Guideline review process

The remainder of this submission will focus on the return on equity proposals.

5.2 Return on equity

What the businesses have proposed – an overview

AGN has proposed a return on equity that is consistent with the AER's Guideline. While the remainder of this section will focus on the changes proposed by AusNet and Multinet, AGN's approach is recognised and appreciated.

Table 5.1 below sets out the components of the networks' return on equity proposal within the parameters required by the AER's Sharpe-Lintner CAPM (SL CAPM) that the AER set out in its 2013 Guideline. CCP11 uses the AER's Guideline as a 'frame of reference" given the extensive consultation that has underpinned the Guideline and the continued use of that Guideline by the AER in its subsequent electricity and gas determinations.

Table 5.1: Return on Equity Parameters in SL CAPM (Nominal)

SL CAPM parameters	AER 2013 Guideline	AGN proposal	Ausnet proposal	Multinet Proposal	Comment
Risk free rate (RFR)	10 year CGS average over 20 BD, prior to determination.	2.03%	2.04% based on using averaging over 8 months	1.92%	AGN & Multinet use 20 days and are compliant with AER's Guideline.
Equity beta (β)	Point estimate of 0.7	Point estimate of 0.7	Point estimate of 0.7	Point estimate of 0.7	APA claims this figure is based on updated analysis
Market risk premium (MRP)	Point estimate of 6.5% derived from historical data and forward looking estimates	Point estimate of 6.5%	Point estimate of 7.5%	Point estimate of 7.5%	Ausnet and Multinet place more reliance on the Dividend Growth Model to reflect current market conditions
Return on equity for the equity market as a whole (*E(rM)*)	Implied point estimate for the market return on equity of around 8.53% (applying RFR of 2.03 % as per AGN estimate) [1]	Point estimate of 8.53%	Point estimate of 9.34%	Point estimate of 9.34% plus "bias" adjustment (alpha) of 1.14%	AER's implied estimate given AER's point estimate values for MRP and RFR and equity beta
Risk adjusted return on equity for a gas NSP	Estimate of approx. 6.58% (applying RFR of 2.03% as per AGN estimate)	Point estimate of 6.58%	Point estimate of 7.3%	Point estimate of 8.31% (including adjustment)	
Equity Risk Premium for investment in gas NSP	4.55% (applying RFR of 2.03% as per AGN estimate)	4.55%	5.26%	6.39%	

1. Estimates of the total market return based on RFR plus (equity beta * MRP) = (2.03 + (1*6.5)) = 8.53%, assuming a market equity beta of 1.

The networks' proposals for the return on equity for a gas NSP are 6.58 per cent for AGN (based on the AER Guideline approach), 7.3 per cent for AusNet and 8.31 per cent for Multinet. The proposals by AusNet and Multinet will significantly increase the allowed revenue for each of these businesses if approved by the AER.

Both AusNet and Multinet claim that they follow the AER's Guideline approach to the return on equity, using the SL CAPM as the foundation model while paying some regard to other measures.

However, they both claim that the AER Guideline parameters, such as the equity beta and MRP, were set in 2013 and need to be reviewed. For instance, AusNet states that, following the Tribunal's decision in 2016, it has adopted the fundamental steps in the AER's Guideline. However AusNet then states: "*in the current market conditions this approach* ***warrants a higher Market Risk Premium*** *than has recently been applied by the AER*".[150] [emphasis added]

The increase in the return on equity for AusNet and Multinet arises from the following factors:

- Both AusNet and Multinet propose a market risk premium (MRP) of 7.5 per cent, compared to the AER's MRP of 6.5 per cent;
- Multinet proposes an additional uplift (alpha factor) of 1.4 per cent, which Multinet claims compensates for the low beta bias in the SL CAPM; and
- AusNet proposes to adopt an 8 month averaging period for calculating the risk free rate.

CCP11 considers that these proposals vary from the Guideline, and draws the conclusion that the two NSPs have not provided sufficient evidence for the AER to vary from the Guideline parameter values. Each of the issues identified above is discussed briefly below along with recommendations for the AER.

As a preface to the discussion on the individual elements of the return on equity, CCP11 does note that the Australian Competition Tribunal has recently reviewed the AER's approach to assessing the Guideline and determined that the AER has exercised its discretion reasonably. The Tribunal found no error in the AER's approach and confirmed that the AER had the discretion to determine the weight to apply to any model or other data in determining the value of the return on equity parameters.[151]

The proposed increase in the MRP (AusNet and Multinet)

AusNet and Multinet adopt similar approaches to estimating the MRP. A large part of their argument is based on the analysis by Frontier Economics (Frontier) who conducted a study in response to the AER's recent draft determinations.[152] AusNet and Multinet have relied mainly on this paper for their proposed MRP of 7.5 per cent.

The core of the argument presented by Frontier for a MRP of 7.5 per cent appears to be:[153]

- The 2013 Guideline indicated that although the AER would rely largely on the analyses of historical excess returns, the AER would place some reliance on the DGM when selecting a point estimate within the range.

[150] AusNet Services – *Gas Access Arrangement Review 2018-2022: Access Arrangement Information*, 16 December 2016, p. 187
[151] Australian Competition Tribunal – *Applications by the Public Interest Advocacy Centre Ltd and Ausgrid* [2016] ACompt 1 at 713
[152] Frontier Economics – *The market risk premium, Report prepared for AGN, Multinet Gas, AusNet Transmission and Ausnet Gas*, September 2016
[153] Ibid, at paragraphs 17 – 45

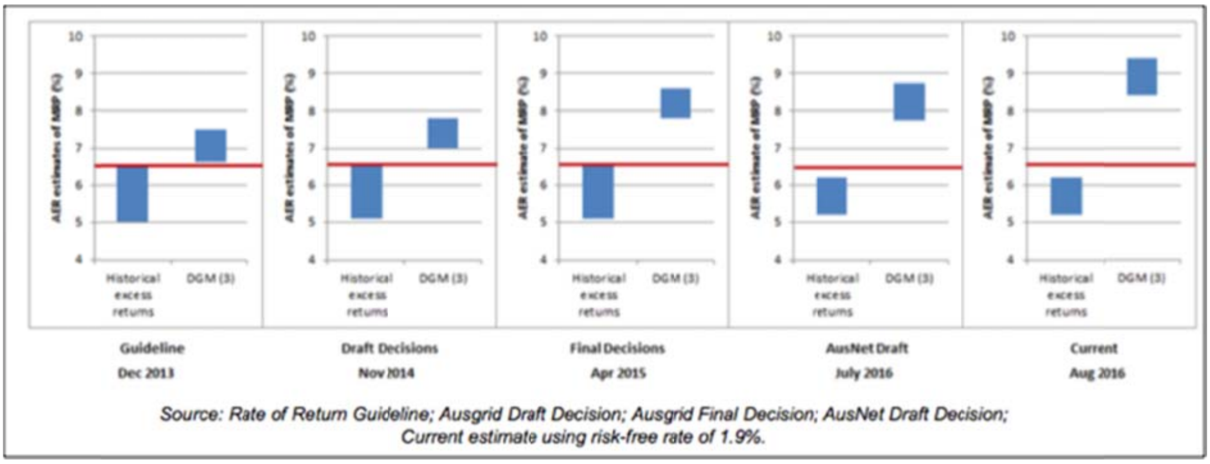
- At the time the Guideline was published, there was a degree of overlap between the MRP range from the historical excess returns analyses and the range from the DGM analyses.
- However, since 2013 the overlap between the two methodologies has disappeared and there has been a progressive widening of the gap between the historic excess returns and the DGM estimates (see Figure 5.1).
- At the time the Guideline was published, the yield on 10-year government bonds was 4.1 per cent; the yield has now fallen by at least 200 basis points (as at September 2016).
- Nevertheless, the AER has maintained its MRP of 6.5 per cent. It appears that now the AER's MRP estimate is based almost exclusively on the historical excess returns estimate rather the prevailing market conditions as revealed by the DGM.
- The problem with the application of the AER's approach is that the AER's MRP is "nearly constant" and, therefore, the required return on equity always falls one-for one with every decline in government bond yields. Analysis of return on equity does not support this conclusion by the AER.

In support of its argument, Frontier presented a chart that it claims reveals the progressive growth in the gap between the range of historical excess returns estimates and the range of the Dividend Growth Model (DGM) estimates (see Figure 5.2).

Frontier concluded its analysis as follows:[154]

> *In persisting with a 6.5% MRP (such that its allowed return on equity has been reduced by more than 25% since the Guideline) the AER is apparently applying **no weight** to any of this evidence. In particular, as the AER's own DGM estimates of the required return on equity have remained stable, it has apparently afforded that evidence progressively less weight – reducing the allowed return by more than 25%.* [emphasis added]

Figure 5.2: Trends in the MRP estimates using the AER's approach to the DGM



Source: Frontier Economics, *The market risk premium*, September 2016, Figure 2 at 16. The chart only demonstrates the AER's 3 stage DGM, the AER also assessed the MRP using a 2 stage DGM.

Frontier applies the findings in this analysis in Figure 5.1 to demonstrate that the AER's Guideline approach must coincide with a prevailing market risk premium of 7.5 per cent. Frontier also provides

[154] Ibid, at paragraph 45

other analyses, using an analysis of the Wright CAPM and a separate analysis of the DGM outputs to demonstrate that the 7.5 per cent MRP is a conservative estimate. Frontier concludes that the MRP of 7.5% lies between:[155]

1. The view that the MRP is constant overall market conditions, so that the required return on equity rises and falls one-for-one with changes in the risk-free rate; and
2. The view that the required return on equity has remained stable over the period since the Guideline.

However, Frontier's criticism of the AER is misplaced. The AER does take account of current market conditions including the outputs of the DGM and various conditioning variables. However, the AER's view is that the assessment of the return on equity parameters including the MRP requires the AER to establish the current estimate of the long-term efficient returns required by an investor. The AER's contention that it is the long-term returns that are relevant in its construction of the MRP has been previously accepted by the Tribunal. The Tribunal re-states the AER's position (which it did not reject) as follows:[156]

> *In the AER's view, the <u>short-term MRP will vary from the long run estimates of MRP at times</u> but that in order to <u>maintain regulatory consistency</u>, a long-term MRP with a notional ten year investments consistent with the term of the risk free rate ought to be considered.*

The AER summarises this position in its recent draft determination for Powerlink:[157]

> *The Sharpe-Lintner CAPM is an equilibrium pricing model and hence the market risk premium parameter of the model **should reflect the premium that investors require in a market in equilibrium**. In this section we examine returns that have been realised in practice, over periods in which the market may not have been in equilibrium. This data is used for practical reasons – the ex-ante required equilibrium return of investors is not observable. **We consider that realised returns remain a reliable indicator of investor expectations in market equilibrium**.*

Arguably, therefore, it would be inconsistent for the AER to combine within the same SL CAPM equation, the 10-year CGS yields and a short-term risk premium. Either the AER uses short-term CGS yields (such as the ERA does) with an increased weight on near term measures such as the DGM; or the AER uses the long-term CGS yield (10 years) with an MRP assessment based on investors' current views of risk and return over the long term.

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[155] ibid, paragraph 42

[156] Australian Competition Tribunal –*Application by Envestra Limited (No 2*) [2012] ACompT4 @ 136. The AER had proposed a MRP of 6.0 per cent based largely on the historical analysis having also considered other evidence including the DGM. Note that while this decision was made prior to the implementation of the revised NGR and the AER's Guideline, the requirements in the NGR rule 87 still applied, i.e. for the AER to have regard to prevailing conditions in the market for equity funds

[157] AER – *Draft Decision, Powerlink transmission determination*, Attachment 3, September 2016, p. 3-104, fn 375.

While there are other methodological differences between Frontier and the AER, the overall view is that it is reasonable for the AER to place less weight on the DGM given its view that it is calculating a long-term MRP. The well-known deficiencies of the DGM, such as the reliance on multiple input assumptions, the selection of the long term dividend growth and/or GDP growth and the different specification of the DGM model (2-stage, 3-stage etc which produce different results) add to this conclusion that the DGM has limited use in the regulatory setting.

To the extent that Frontier also refers to the decisions of other regulators, such as IPART and the ERA, it is worth noting that ERA has also reconciled its decision to apply an MRP of 7.4 per cent with the AER's MRP of 6.5 per cent, largely by noting that the ERA uses a 5-year CGS yields and the AER uses 10-year yields for the risk free rate. The ERA concludes in its decision on Goldfields Gas Pipeline (July 2016):

> *1138: As discussed in paragraphs 1086 to 1093 the Authority's estimates are forward looking over the next 5 years and hence can deviate from the long run historical averages implied by mean reversion or the 'Ibbotson' approach. As shown in table 79,* ***these estimates tend to be around 6 to 6.5 per cent range****. The Authority notes that this range of estimates coincides with those typically employed by other regulators****. If the Authority were to adopt a longer term view, it would be logical to adopt this range.*** *However, the Authority adopts a 5 year risk free rate in the return on equity and correspondingly allows deviation in the MRP from the long run value typically employed by other regulators.* [emphasis added]

Both AusNet and Multinet have relied on yields for 10-year CGS bonds for the risk free rate. This is the same risk free period as the AER has selected in assessing the risk free rate of return on equity. It is therefore appropriate that the two NSPs take note of the ERA's analysis namely that the use of a long-term risk free rate is consistent with placing greatest emphasis on the historical excess returns analysis (and similarly, the long-term BBB commercial bonds for the return on debt).

AusNet and Multinet also make reference to the need for an increase in the MRP to reflect "changing market conditions". This is partly reflected in their reliance on Frontier's 2016 DGM outputs. However, Frontier also makes reference to other market measures such as volatility index, and dividend yields as consistent with a higher MRP. However, an examination of these 'conditioning variables' illustrates the difficulty with this, as these measures are volatile and can change quickly. For instance, the ASX 200 VIX index has shown a strong reduction in market volatility in the last month compared to when Frontier was undertaking its research and when the AER published its draft determinations (July – September 2016).

Does this mean that the MRP should revert back to a figure below the 6.5 per cent proposed by the MRP? Perhaps not, or at least not in the context of the AER's SL CAPM formulation. Nevertheless the data does provide strong support for the contention that the AER should be **very** cautious in how it uses this data on current market data (whether from the DGM or the conditioning variables) is used in its SL CAPM. It is important when setting an equity value for 5-years that the AER distinguishes between "animal spirits" in the market and long-term trends in the market. It is reasonable to conclude that the consumers' interests are best served by an emphasis on the historical excess returns.

It is recommended therefore that the AER not accept the proposals by AusNet and Multinet for an MRP of 7.5 per cent. The reasons for this conclusion are discussed above and summarised below.

- The importance of the regulatory principles of consistency and predictability means that there must be a substantial body of evidence provided of sustained changes in the rate of return parameters set out in the Guideline, along with the opportunity for consultation on these proposed changes.

- Given this, reliance on near term measures of the return on equity and the MRP, such as the DGM and various conditioning variables, is misplaced. The AER's position, which is supported by the Tribunal is summarised by the Tribunal in the following quotation:[158]

  In the AER's view, the short-term MRP will vary from the long run estimates of MRP at times but that in order to maintain regulatory consistency, a long-term MRP with a notional ten year investments consistent with the term of the risk free rate ought to be considered.

- In any case, the DGM has significant weaknesses as a tool to measure expectations on the return on equity or the MRP, particularly in measuring expectations for longer-term investments as required in the AER's SL CAPM framework. The reliance on multiple, often subjective assumptions, make the DGM susceptible to bias, and means that it is unsuitable as a tool for establishing the MRP within the regulatory setting.

- The AER is correct in giving most reliance (but not all) on estimating a MRP using a range of analyses of historical excess returns. Such an approach is most likely to achieve an unbiased assessment of the MRP in which the risks of over or under recovery are shared between NSPs and the consumers over time.

- While the ERA's most recent assessment of the MRP is higher than the AER's (7.4 per cent versus 6.5 per cent) the ERA itself has explained that most of this difference is a result of the different terms in the risk free rate calculation (5 years versus 10-year CGS bond yields).

- To the extent that the AER has adopted a point estimate on the high side of the range of historical excess returns, in large part because of its consideration of the DGM, it is suggested that the AER carefully examine the role of the DGM within its SL CAPM framework. Frontier's claim of a growing spread between the historical excess returns and the DGM outputs is also relevant to this review.

[158] Australian Competition Tribunal – *Application by Envestra Limited (No 2)* [2012] ACompT4 @ 136. The AER had proposed a MRP of 6.0 per cent based largely on the historical analysis having also considered other evidence including the DGM. Note that while this decision was made prior to the implementation of the revised NGR and the AER's Guideline, the requirements in the NGR rule 87 still applied, i.e. for the AER to have regard to prevailing conditions in the market for equity funds. The Tribunal has not subsequently changed this position but has explicitly endorsed the AER's approach to the return on equity.

- It is also suggested that the AER reassess the conditioning variables in the Guideline while recognising the limitations of this data. For instance, market volatility appears to be at a point now well below the market average. Other conditioning variables might include consumer and business confidence, both of which are relevant to assessing expectations.

The proposed inclusion on an uplift ("alpha") in the return on equity (Multinet)

Since the Tribunal's decision in favour of the AER's approach to the return on equity, some the NSPs have investigated ways that the 'Black CAPM', and the 'White CAPM' could be used within the AER's SL CAPM foundation model framework. They have also proposed that the AER places a greater weight on the DMG outputs (see above MRP discussion).

Multinet has taken a further step. Multinet has proposed an additional 1.14 per cent to be added to the SL CAPM output to compensate for the alleged bias in the SL CAPM for low beta stocks. Thus, Multinet's proposed return on equity is made of a risk free rate of 1.92 per cent, a MRP of 7.50 per cent, an equity beta of 0.7 and a 'bias adjustment' or 'alpha' of 1.14 per cent.

Multinet has therefore proposed an overall return on equity of 8.31 per cent (7.5% + 1.14%). A market return on equity would imply an <u>equity risk premium</u> for a benchmark efficient network (BEE) of 6.39 per cent given a risk free rate of 1.92 per cent. (See Table 5.1)

An equity risk premium of 6.39 per cent would suggest that investors see current market risks as well above the average. An initial difficulty posed by Multinet's proposal is that there is no evidence in practice that the market is functioning as if there was significant level of risk. Such a conclusion is inconsistent with current market measures such as:

- Low level of market volatility as evidenced in the ASX 200 VIX index;
- Price-earning ratios recovering to average or above levels;
- Consistent growth in the equity market;
- Increased consumer confidence, particularly business confidence.

Apart from this high level observation, there are aspects of Multinet's proposal for uplift to the SL CAPM return on equity that are of concern. They are described below.

- The uplift is justified by reference to the theory of the Black CAPM, which states that the SL CAPM (as used by the AER) includes a 'low beta bias'. That is, for companies with lower than average systematic risk (such as a regulated network), the theory of the Black CAPM suggests that the equity risk will be underestimated.

- The AER has, in the past given some credence to the Black CAPM theory, including selecting an equity beta for the BEE of 0.7, the top of its empirically observed range of 0.4 to 0.7) or 0.3 to 0.8 in a later study).

- While Multinet has adopted the equity beta of 0.7 in its proposal, it has made an adjustment to the overall return on equity which it considers is equivalent to, but more transparent than, an upward adjustment of the equity beta.[159] This uplift is in addition to the higher MRP discussed previously to compensate for additional market risk.

- Multinet's consultant, HoustonKemp concluded that for an equity beta of 0.7, their analysis indicates that a corresponding uplift to the return on equity in the SL CAPM, of between 1.10 and 1.75 per cent per annum per annum was required.[160]

- Based on this advice, Multinet proposes an uplift of 1.14 per cent in its return on equity proposal.

Multinet explains this further by highlighting that the AER has acknowledged the potential for a low beta bias and has made an adjustment for it in the approved equity beta which is above the AER's empirical best estimate of 0.5 (from a range of 0.4 to 0.7) based on the work of Professor O Henry in 2008, 2008 and 2014.

Multinet then states that the recent analysis conducted by Frontier Economics[161] indicated that the empirical equity beta had progressively risen to 0.7 since 2014. Therefore, the AER must recognise that if the empirical best estimate has risen, then taking account of the theory of the Black CAPM means that the an additional uplift factor must be applied to the return on equity (or a higher beta – see discussion above).

CCP11 has not examined the detail of the modelling undertaken by either Frontier or HoustonKemp and must presume that the AER will consider the material provided in their reports and examine its reliability and relevance to quantifying the impact of any low beta bias in the AER's SL CAPM.

It is relevant to note in assessing Multinet's proposal that the AER claims it has already adjusted for low beta bias by selecting an equity beta at the top of the empirical range of beta of 0.4 to 0.7. In making this adjustment, the AER takes note of the theory of the Black CAPM, although it does not try to specifically quantify the impact.

However, there is a growing view that for Australian firms there is a "low beta bias" in the AER's SL CAPM that needs to be compensated. And even if there is such a bias, it is not clear how this can be quantified in a reliable and consistent manner that can be used in a regulatory decision making process.

For instance, the AER's consultants stated that the problem of estimating the impact of the zero beta factor[162] in the Black CAPM are: "virtually intractable and estimates, such as those of the zero beta

[159] APA VTS used similar arguments but increased the equity beta to 0.8 rather than include a specific uplift.
[160] HoustonKemp – *The Cost of equity and the Low-Beta Bias, A report for Multinet*, November 2016, p. viii
[161] See Frontier – An equity beta estimate for Australian energy network businesses, Report prepared for APA Group, December 2016
[162] The zero beta factor is the factor by which the beta risk and return line is altered to adjust for the low beta bias

return are so problematic and unreliable as to render them virtually worthless".[163] Handley, confirmed the view that: "our understanding of the low beta bias is still far from clear".[164]

Having considered the relevant papers, it is recommended that the AER not accept Multinet's proposal for 'uplift' to the SL CAPM for the following reasons:

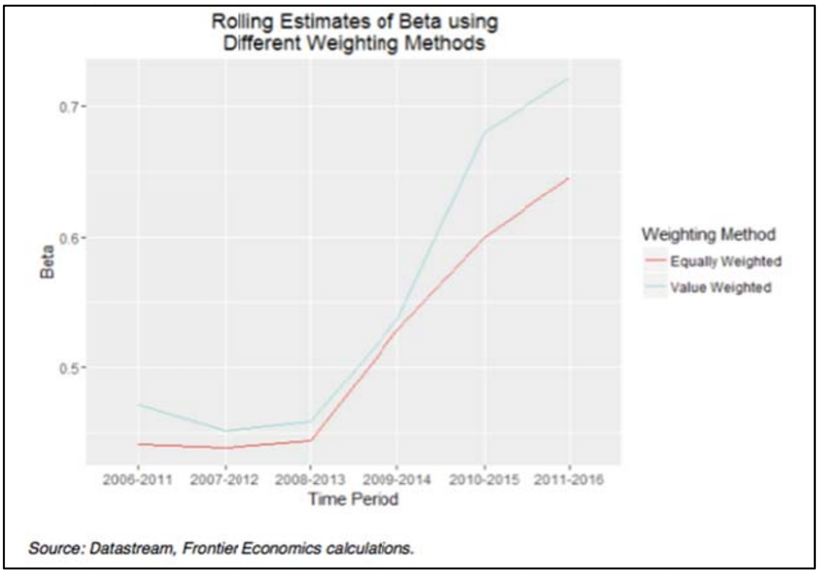
- As noted, several of the AER's consultants have disputed whether bias in the SL CAPM is, in fact, a sustained feature of the Australian market and if, it does exist, whether it can be reliably measured. There is a significant risk that a perceived error in one direction (low beta bias) will be compensated by an adjustment factor such as proposed by Multinet that results in an error in the other direction.

- It is not clear if there has been a sustained increase in the equity beta as proposed by Multinet and for which it is seeking compensation through the uplift factor. An initial review of the material supporting this claim is not a convincing demonstration of a sustained and statistically reliable change in the empirically derived equity beta. For example:

    - Frontier's preferred formulation of the empirical 5-year rolling estimates of beta (commencing 2006-11 to 2011-2016) demonstrates a range of 0.65 to 0.72; the AER's equity beta of 0.7 fits within that range as illustrated in Figure 5.3 below.

[163] Partington and Satchell, *Report to the AER: Analysis of criticism of 2015 determinations*, October 2015, p. 18; cited, for instance, in AER, Final Decision AusNet distribution determination, Attachment 3, May 2016, p. 3-183.
[164] Handley J, *Report prepared for the AER, Further advice on the return on equity*, April 2015, p. 6.

Figure 5.3: Rolling 5-year portfolio estimates of beta



Source: Frontier *An equity beta estimate for Australian energy network businesses*, Report prepared for APA Group, December 2016, Figure 2, paragraph 63.

- In any case, Frontier has indicated that it prefers an analysis of 10-year data to the 5-year data on the basis of improved statistical reliability given the sample of four firms. In a small sample of four firms, movements in one firm in a 5-year period arising from exogenous factors can have a significant impact on the empirical beta.

  Frontier's empirical 10-year weekly estimates for equally weighted portfolio and value weighted portfolio do not appear to be materially different to the AER's best statistical estimate from the empirical Henry 2014 analysis of 0.4. In summary, Frontier reports the following betas based on 10-years of data:[165]

  - Raw beta: 0.49 (equal weight) and 0.54 (value weight)
  - Re-levered beta: 0.52 (equal weight) and 0.57 (value weight).

- Multinet's approach to quantifying the 'alpha' or uplift factor appears to be a case of 'reverse engineering', or at least this is suggested by the terms of reference provided by Multinet to its consultant, HoustonKemp. It would seem that Multinet is starting from the assumption of an expected return on equity of "X" and seeking to solve for the uplift (alpha) given the other SL CAPM parameters.

  If this is the correct interpretation of Multinet's terms of reference, CCP11 would ask the AER to ensure that this uplift number is not just a number that arises from reverse engineering Multinet's expected return on equity for the BEE.

- There is no information provided by Multinet about why the empirical estimates of equity beta should be increasing over the last few years, along with the increase in the MRP (see above).

[165] Frontier *An equity beta estimate for Australian energy network businesses*, Report prepared for APA Group, December 2016, Table 2, paragraph 60.

> Without such an explanation, there can be no confidence that the increases claimed over recent years represent a sustained trend in the market. Certainly an examination of recent market indices such as consumer and business confidence, volatility, GDP growth trends, share prices, price-earnings ratios, company earnings etc., do not support a view that investors are seeing significant risk in the more immediate future.

More generally, the approach of adding in 'bits and pieces' to the SL CAPM outputs is of significant concern. Such 'adjustments' should only be made after very careful consideration of the theory of the SL CAPM, the nature of systematic risk and the interrelationships with each of the parameters in the SL CAPM and the overall WACC.

Without a careful consideration of interrelationships, the AER risks falling back into the trap of estimating individual components of the return on equity and the WACC in isolation, and without regard to the overall return on equity. The 2012 amendments to the Rules are clear that the AER's focus must always be on the overall rate of return objective, as must the Tribunal's attention (following the parallel changes to the NEL and NGL).

In addition, if these 'add-ons' are made without a clear connection to theoretical framework that underpins the AER's SL CAPM framework, the inclusion of an extra factor (alpha) based on various empirical studies can simply a statistical illusion or temporary market factor that is unsuitable for the regulatory task facing the AER.

AusNet's proposed change to the risk free averaging period

AusNet agrees with the AER's Guideline that the best estimate of the prevailing risk free rate is the average yield on Commonwealth Government Securities (CGS) with a 10-year term.
However, AusNet has proposed to extend the averaging period for estimating the risk free rate.

The AER's Guideline requires the average yield on 10-year CGS to be estimated over 20 business days as near as possible to the start of the regulatory period. AusNet's proposal is to extend this averaging period to 8 months. AusNet explains its proposal as follows: [166]

> *The averaging period chosen means the cost of equity is not as vulnerable to sudden movements in the market that might fall into a 20 business day period but still allows for it to capture fundamental changes in equity markets.* ***The longer averaging period also goes some way to addressing issues associated with the AER's current approach which combines a spot interest rate with a long term equity premium****. The proposed approach protects both customers and businesses from the "lottery" effect of an ex-ante short sample period.*
>
> *The departure from the Guideline provides a* ***greater level of stability in returns and customer prices*** *across regulatory periods which we believe furthers the long term interests of consumers.* [emphasis added]

Having considered AusNet's proposal, the following points are raised for the AER's consideration:

[166] AusNet Services, *Access Arrangement Information 2018-2022*, December 2016, p. 191.

- In the current proposal, AusNet calculates the risk free rate on the basis of an 8 month averaging period. At this point in time, it makes little difference to the risk free rate assumed by the NSPs (see Table 5.1).
- AusNet's proposal has some merit, particularly given that the return on debt can be now calculated using up to a year of data on yields for BBB commercial bonds.
- The approach is also more consistent with the AER's view that it is assessing investor expectations for longer-term investments as discussed above.
- However, like any change to the SL CAPM parameters, there must be careful modelling of the potential impact of such a change given different profile of yields on 10-year CBS.

Consumer perspectives on the NSPs' proposals re the regulated return on equity

There is limited information on how much the NSPs discussed their return on equity proposals with their customers despite the impact of their decisions on their overall revenue and consumer prices. In addition, discussions on complex issues such as the efficient return on equity are difficult to explain to most consumers.

Nevertheless, an informed consumer representative could be advised that the business intends to vary its proposed return on equity proposal from that set out in the AER's Guideline, and obtain an explanation from the business regarding its intended course of action.

Recommendations:

Recommendations on AusNet's and Multinet's proposals to increase the MRP

- The AER does not accept the increases in the MRP proposed by AusNet and Multinet.
- The AER review the findings of Frontier (2016) which claims that there is growing spread between historical excess returns and DGM results and consider whether this finding challenges the relevance of the DGM in the AER's SL CAPM framework.
- CCP11 recommends that the AER undertake further research into the current trends in conditioning variables and whether they support the claim for a higher MRP.

Recommendations on Multinet's proposal to include an uplift factor in the return on equity

- The AER does not accept Multinet's proposal for an uplift to the return on equity calculated under the AER's SL CAPM framework to compensate for the claimed low beta bias in the SL CAPM.
- The AER undertake further investigations in response to Multinet's claim that the equity beta has increased since 2014. If the AER's analysis confirms this increase, then assess whether this change represents a shift change or a temporary factor that will return to more normal levels identified by the longer 10 year analysis of the equity beta.

Recommendations on AusNet's proposal to extend the averaging period for assessing the risk free rate.

- The AER does not adopt AusNet's proposal to extend the averaging period for the risk free rate to eight months, at this stage.

- The AER undertake further investigations of the risks and benefits of the AusNet's proposal for an extension to the averaging period for the risk free rate. However, it is also recommended that this be undertaken as part of the review of the Rate of Return Guideline in 2017-18.

6. Tariffs

Distribution tariffs

Revenue recovery is through tariffs charged providing reference services. Ultimately those are charged to end use customers. Though retailers do not have to pass on the same structures and allocations of network charges to customers, the network charges affect the retailers' costs and therefore feed into customer impacts.

The structure and relative levels of pricing affect the proportions of revenue that are recovered from different customer groups. The price path also affects when in the period the charges are levied, and whether there is any 'price shock' at the beginning and end of (as well as during) each regulatory period.

From its review of the distribution businesses' tariff proposals, and attendance at forums involving retailers, CCP11 wishes to make the following comments on the tariff proposals.

Alignment of Victorian and Albury tariffs

AGN had in mind initially to align the Victorian and Albury tariffs. However, consumer engagement revealed that consumers did not support this realignment, and on that basis AGN has dropped this proposal.

> *In response to stakeholder feedback in our Draft Plan we have decided not to align pricing zones. We will further consider this initiative, and if pursued, seek alignment over a longer time period.*[167]

CCP11 supports the decision by AGN to respond to stakeholder engagement. It shows the strength of stakeholder engagement and the capability for it to influence a network business' regulatory proposal.

Tariff structures

The Victorian gas distribution tariffs for residential and commercial customers are particularly complex, with many consumption bands. In many cases, retailers do not pass through this complexity. Some retailers have stated their preference for less complexity in the tariffs. Gas distributors have largely retained their current tariff structures on the basis of cost reflectivity.

We suggest that there may be further opportunity for more discussion of tariff structures to reach a more agreed approach between distributors and retailers.

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[167] AGN – Final Plan AAI, page 47

Price cap vs. revenue cap form of control

Multinet has proposed a change from price cap to revenue cap, while AGN and AusNet both choose to retain the existing price cap form of control. Much has been written on the relative merits of price vs revenue caps in electricity and gas networks, which we do not propose to repeat here.

Recommendation:

- The AER should consider consistency, as well as the risk assignment between the business and consumers when deciding whether Multinet's request for a revenue cap form of price control should be accepted.

CONCLUSION

There are several areas where CCP11 is concerned that the proposals from the NSP's may not be in the long term interests of consumers.

The review of the NSPs' consumer engagement and consideration of issues that may not be in the long term interests of consumers, with CCP11's recommendations regarding these, are concisely summarised in the Executive Summary above.

CCP11 commends to the AER the issues raised in this advice and the recommendations made.

Deemed Signed

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Chris Fitz-Nead	Bev Hughson	David Prins	Robyn Robinson
Sub-panel Chairperson			