Consumer
Challenge
Panel

CCP24 Advice to Australian Energy Regulator on

Australian Gas Networks Revised Final Plan

for AGN Gas Networks (South Australia) Access Arrangement

July 2021-June 2026

Consumer Challenge Panel (CCP) Sub-Panel CCP24

Robyn Robinson

Mark Grenning

Mark Henley

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Acknowledgements

CCP24 wish to acknowledge the cooperation and support of AGN staff who have generously provided information and insights to assist the sub-panel in its review of the business's Revised AGN Final Plan.

We also thank the AER staff for their support and guidance during this process.

Confidentiality

We wish to advise that to the best of our knowledge this advice neither presents any confidential information nor relies on confidential information for the comments.

The Consumer Challenge Panel sub-panel CCP24

The AER established the Consumer Challenge Panel (CCP) in July 2013 as part of its Better Regulation reforms. These reforms aimed to deliver an improved regulatory framework focused on the long-term interests of consumers.

The CCP assists the AER to make better regulatory determinations by providing input on issues of importance to consumers. The expert members of the CCP bring consumer perspectives to the AER to better balance the range of views considered as part of the AER's decisions.

CCP24 is a sub-panel of the AER's Consumer Challenge Panel. The AER established the sub-panel to focus specifically on the AER's regulatory access arrangement review for Evoenergy for its ACT (and surrounding areas) gas distribution network, and for Australian Gas Networks' South Australian Network for the 2021-2026 regulatory period. CCP24 has provided advice related to these reviews during 2019-21, which can be found on the AER website.

Acknowledgement of Country

We recognise the traditional owners of the land on which the AGN South Australian gas network operates. We respect the elders of these nations, past and present along with the emerging leaders.

1. Introduction

This Statement of Advice is provided to the Australian Energy Regulator (AER) from Consumer Challenge Panel, sub-panel 24 (CCP24) in response to the Australian Gas Networks (AGN) 2021-26 Revised Access Arrangement Proposal (RAAP) for the South Australian gas network, which was submitted to the AER January 2021.

CCP24 provided Advice on the AGN Final Plan August 2020[1] and then subsequent Advice relating to engagement activities for the operating expenditure consumer-initiated programs, which included the digital customer experience program, vulnerable customer assistance program and purchasing renewable unaccounted for gas[2]. Following the AER's Draft Decision on the Final Plan, AGN submitted its Revised Final Plan to the regulator in January 2021. This Advice from CCP24 responds to both the AER Draft Decision and the Revised Final Plan prepared by AGN.

Note: As in the Revised Final Plan, all financial information in this report is presented in real 2020-21 dollars.

2. Summary of CCP24 Advice

The engagement we have had with AGN over the last two years on the future of gas has been very rich and informative. Attachment 9.6 in the Final Revised Plan is indicative of the quality of AGN's contribution to the complex issues and we find a lot to agree with. We have greatly benefitted from our discussions as we have developed our views in our various Advices. We are pleased to see the AER's decision to elevate consideration of the future of gas in their strategic priorities list.

Our discussion in this Advice picks up on some themes in earlier Advice and comments on the criteria the AER developed in its Jemena Final Decision and Evoenergy Draft Decision to decide whether to accept a network's application for accelerated depreciation. Our proposition is that the criteria are too rigid and not in the long term interests of consumers. Greater flexibility is preferred as this will result in shortening asset lives sooner.

The drive initially for this flexibility was intergenerational equity – the longer a decision on asset lives is delayed the greater the intergenerational inequity. Then Attachment 9.6 reminded us of the efficiency basis for the same conclusion. Consumers are only starting to become aware of the complexity and need to be educated about options to make an informed contribution to the debate. Two aspects we highlight are the impact on electricity network investment from a reduction in gas demand and the argument that Governments should share in any stranded asset cost.

We comment on the scenarios approach suggested in Attachment 9.6 and believe it deserves further study as part of a framework for any whole of system review. Finally, we highlight the complexity of the issues around the future of gas and the need to start consumer engagement. Any wider gas rules review should begin as soon as possible to allow its conclusion to be considered in the forthcoming AA for Victorian transmission and distribution.

[1] https://www.aer.gov.au/system/files/CCP24%20-%20AGN%20AA%20Advice%20-%2010%20August%202020.pdf

[2] https://www.aer.gov.au/system/files/CCP24%20%20-%20Advice%20on%20AGN%20customer%20initiated%20opex%20-%206%20October%202020_0.pdf

We continue to support AGN's decision not to apply accelerated depreciation for the 2021-26 regulatory period. Affordability has been a major driver for AGN during this reset. AGN's Revised Final Plan will deliver a price cut to customers of 8% on 1 July 2021, with price increases in line with inflation in the subsequent years.

AGN's concerns around better supporting vulnerable customers are exemplified by their proposed Vulnerable Customer Assistance Program. CCP24 is supportive of AGN's proposal.

3. Comparison between AGN's Final Plan and Revised Final Plan

The following table provides a snapshot of the main differences between AGN's Final Plan and the Revised Final Plan.

	Final Plan	AER Draft Decision	Revised Final Plan
Allowed total revenue	$1070m	$970m	$1066m
Opex	$357m	$330m	$351m
Capex	$579m	$481m	$529m
Nominal vanilla WACC	4.40%	4.25%	4.16%
Customer connections (end 25/26)	490,756	-	492,670
Price impact (year 1, nominal)	-7%	-12% (including inflation decision)	-8%

4. Consumer Engagement

CCP24 involvement

In our Advice regarding the AGN Final Plan we said:

> "*We conclude that AGN has engaged with a diversity of their customers, has actively listened, and acted on the advice given and preferences expresses by customers. It was an extremely high quality, well implemented engagement strategy, and is continuing. AGN has effectively incorporated consumer and stakeholder input into their Final Plan and has documented their responses to consumer advice very clearly.*"

We also note that since we made these comments the AGN engagement program has received the ENA/ECA consumer engagement award for 2020 in recognition of the quality of their engagement.

In the lead up to lodging the revised access arrangement proposal, AGN have focused on the vulnerable customer assistance program (VCAP) which was underdeveloped at time of lodging their proposal.

We observed a stakeholder workshop conducted in December 2020 involving the South Australian Reference Group (SARG), the AGN Retailer Reference Group (RRG) and community organisations.

AGN have also undertaken further work to develop the program detail and relevance. They are now proposing a program with the following elements:

1. free gas safety appliance checks for about 2000 vulnerable households
2. financial support of up to $1,250 for switching to more efficient gas appliances, again for vulnerable customers
3. providing backup support during planned and unplanned outages including providing cooking heating and washing alternatives
4. a $500,000 'fund' over the five years of the access arrangement that can be accessed by vulnerable customers to assist with emergency repairs for necessary appliances
5. utilisation of field crews and other AGN employees to help engage with and refer vulnerable customers who they meet in their 'on the ground work'
6. a commitment to streamline internal processes involving Call Center and field crews to ensure that customers only have to 'tell their story' once.

We are also aware through discussions with community organisations that there has been discussion between AGN staff and community service providers about the most practical approaches to implement the VCAP. As CCP24, we have however not observed these interactions.

CCP24 has also observed two online workshops convened to consider a "gas network innovation scheme" (GNIS) proposal.

CCP24 comments on the engagement

While the volume and frequency of engagement activities from AGN has been at a lower level than it was in developing the access arrangement proposal, we are satisfied that AGN has undertaken the engagement that was necessary and they maintain solid ongoing working relationships with the consumer groups, community organisations and other stakeholders with whom they work.

We are satisfied that there is support for the VCAP from customers, although wariness remains from retailers, and that there is support for the greater detail that has now been developed.

5. Future of Gas

Draft Decision and Revised Final Plan

The Draft Decision accepted AGN's proposal not to make fundamental changes, such as a move to accelerated depreciation, in response to uncertainty over the future role of gas and gas networks[3].

> "*We consider AGN has taken a sound approach to the uncertainties on its network. This is consistent with what we have heard from stakeholders, including CCP24…*"

The AER has recognised the importance of the issue in its role on determining network access arrangements such that they[4]:

[3] Draft Decision Overview p.11
[4] ibid

"*…have elevated consideration of future gas market issues in our strategic priorities list. We are currently considering how the AER could advance the discussion with consumers, industry, market bodies and government stakeholders*."

CCP24 Comment

Introduction and Summary

CCP24 has discussed the future of gas networks extensively in previous Advice to the AER on both AGN and Evoenergy. This has led to lengthy discussions with both the AER and the two networks as we seek to better understand the issues around how consumers might be impacted by potential stranded asset risk and how that risk might be borne. It also led to a recommendation for a wider review of the gas rules to ensure they are 'fit for purpose' for a zero emissions future. We need to be prepared for what to consider, not just in the next AGN reset for 2026-31, but for the next gas distribution network reset in Victoria that is about to start.

While the two networks (AGN and Evoenergy) are in a different situation now:

- We supported Evoenergy's proposal for accelerated depreciation for new ACT assets and the AER agreed because it met their four criteria (specific legislation, gas reduction policy, falling demand forecast and falling proposed capex).
- We supported no change for AGN and the AER agreed because it did not meet the same four criteria.

We do not expect this to be the case when AGN comes to consider the 2026-31 AA period. Indeed, we argue in our Evoenergy Advice in favour of accelerated depreciation for Evoenergy's new NSW assets because we see the AER's four criteria as setting too high a bar for networks to meet in order for the AER to approve accelerated depreciation. We consider that the Evoenergy NSW situation is different from South Australia i.e.

- the Evoenergy assets in NSW are integral to its assets in the ACT, and
- unlike the SA Government, the NSW Government implicitly and explicitly sees a limited life for gas as it develops its NSW Roadmap and other policies.

However, the fact that there is no explicit NSW legislation on zero net emissions (it is a policy goal), nor an explicit policy to reduce gas consumption (just statements from the Energy and Environment Minister around the risk of gas stranded assets) are not reasons to rule against accelerated depreciation for new assets. We think the position on accelerated depreciation should be based on long term interests of consumers in the energy i.e. gas and electricity market, not by the deterministic criteria used by the AER.

Our proposition is that greater flexibility around these criteria is in the long term interests of consumers. Implementing this greater flexibility will result in shortened asset lives sooner that the AER's approach. We initially based this proposition on a consideration of equity which we consider in two contexts:

- What is an equitable outcome between current ACT and NSW consumers? and
- What is an equitable outcome between today's consumers, whether in ACT or NSW, and consumers in 10-20 years' time in the lead-up to 2045?

In this Advice we seek to provide some insights into considerations in the proposed wider review of the gas rules that should be undertaken sooner rather than later so its recommendations can be incorporated into the current and imminent gas distribution network resets, not wait until the next round for AGN and Evoenergy.

While our initial driver was equity, a review of the seminal academic literature on asset lives suggests there is also a strong efficiency basis. Overall, we believe our proposed approach delivers a better pathway to achieve the NGO.

The AER seems to imply its flexibility for the next round of gas network resets[5]:

> "If there is more certainty about the phasing out of gas at the next access arrangement review, we would reconsider whether current assessment tools remain appropriate for the purpose of determining expenditure forecasts, demand forecasts, pricing structures and incentive schemes."

AGN and the Future of Gas

AGN has provided a very insightful Attachment 9.6 on the Future of Gas in its Revised Final Plan, and our focus in this Advice is its 'work in progress' discussion of how the AER might consider assets lives in the future. It analyses the reasons change is underway, the reasons for the AER's decision on Evoenergy compared with Jemena - how fit for purpose are the four criteria? Finally, it suggests a scenario based approach that could be adopted in the AER's forthcoming review of the gas rules. We find a lot to agree with in the Attachment.

Electricity is becoming a stronger competitor

AGN argues that the shift away from gas in South Australia by residential customers (~34% of total consumption[6]) is not solely due to a net zero emissions target. It is due to the simple economics of rooftop solar. While gas has always been a fuel of choice for households, its ability to compete against electricity is falling. Both technology and policy are driving the future of gas. Now, the potential for technological development of hydrogen has entered the equation. While policy is jurisdiction specific, technology is not. Technological advances driven by a policy in one jurisdiction are generally available to all jurisdictions.

As we discussed in previous CCP24 Advice, the arguments against any accelerated depreciation for AGN in 2021-26 were based around the desire to provide some breathing space for gas to try to be competitive against a falling cost of electricity. Gas network prices will fall 8% in 2021/22. The completion of the mains replacement in the current period will provide more breathing space in 2026-31 to hopefully provide for some fall in network tariffs if there is a stronger case for accelerated depreciation and demand is falling. However, that may be difficult if the ACT experience is any guide – the revised Evoenergy demand forecasts mean the 10% price fall in year 1 in the Draft Decision has now disappeared.

The AER places too much emphasis on jurisdictional policy position

AGN notes[7]:

[5] Draft Decision Attachment 4 – Regulatory Depreciation p.25
[6] See Table 12.3 p. 135 https://www.aer.gov.au/system/files/AGN%20-%20AGIG%20-%20Final%20Plan%20-%201%20July%202020_0.pdf
[7] Future of Gas p.10

> "…whilst decarbonisation policy is important, the focus on whether a particular jurisdiction in Australia has or does not have a decarbonisation policy and the strictness of that policy is somewhat misguided. Each Australian state has a different approach to encouraging the decarbonisation of its network – the ACT is somewhat of an outlier with policies specifically targeting the electrification of gas usage, whereas in other jurisdictions we have seen more effort in encouraging new renewable electricity generation. However, all States have seen significant increases in renewable electricity driven both by policy but even more so by technology costs".

We find this argument convincing. The specific legislation criteria should be more flexible.

Falling demand is not required to justify a shorter asset life

One reason the AER rejected Jemena's case for accelerated depreciation was that forecast demand was not falling. In its Final Decision, the AER rejected the Jemena commissioned Core Energy study that showed falling demand and endorsed the AEMO forecast that concluded[8]:

> "…annual gas consumption for residential and commercial consumers in NSW [would] to continue to grow until 2038 under all scenarios in its 2019 Gas Statement of Opportunities (GSOO)."

AGN argue, and we agree, that this is flawed reasoning. Demand can be stable or increasing as all categories of gas users make rational decisions to connect. They are not looking to some future date like 2045 for a net zero emissions target, they are looking at the life of their home appliances or production equipment. Generally, the end of technical life will be well before 2045.

But this is the core of the issue – to supply those customers requires network investment in assets that have a technical life well beyond the life of the customers' appliances/equipment. In that case it is reasonable to expect those customers to pay for the costs their decision imposes on all other current and future customers because economic life may be less than technical life.

Develop scenarios to inform discussion about appropriate depreciation schedules

We think the scenarios approach suggested by AGN deserves further study. Both technology and policy are evolving. There are a wide range of views about future pathways. AGN proposes some potential futures[9]:

- "A tube and trailer network directly supplying a relatively small number of customers, such as large industrial customers, with hydrogen, rather than relying on network delivery.
- A "trunk line" business serving major customers directly with local networks in relevant communities operated on a smaller scale by someone else connected to our hubs.
- A small and declining legacy business of supply to residential areas which already have a network connection, but unable to compete in new residential areas.

[8] See p. 20 https://www.aer.gov.au/system/files/AER%20-%20Final%20decision%20-%20JGN%20access%20arrangement%202020-25%20-%20Attachment%204%20-%20Regulatory%20depreciation%20-%20June%202020.pdf

[9] Future of Gas pp 10-11

- A completely different business model whereby we have no focus on residential gas (or hydrogen) supply at all, but rather help facilitate a niche role for hydrogen in the electricity market by connecting grid-scale wind and solar producing hydrogen via spilled energy.
- Networks as the facilitators of trade in a decentralised energy market whereby various players, down to the level of individual residential households, sell hydrogen as an energy storage service into a grid, which we operate."

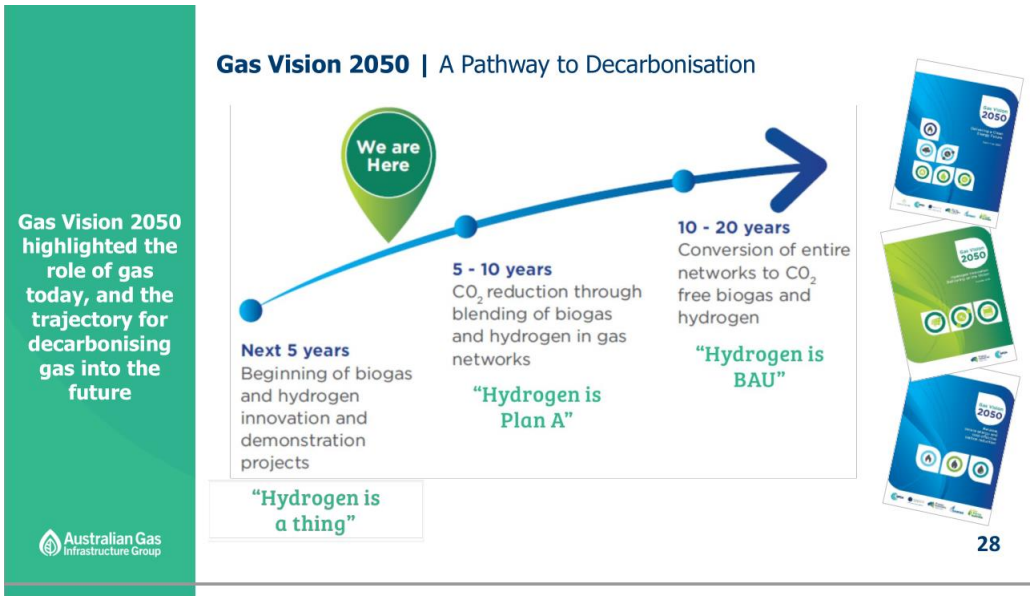
Investment and divestment plans would be developed for each scenario – what assets are required, what are stranded and hence require different asset lives?

Is a move away from AER regulation an option?

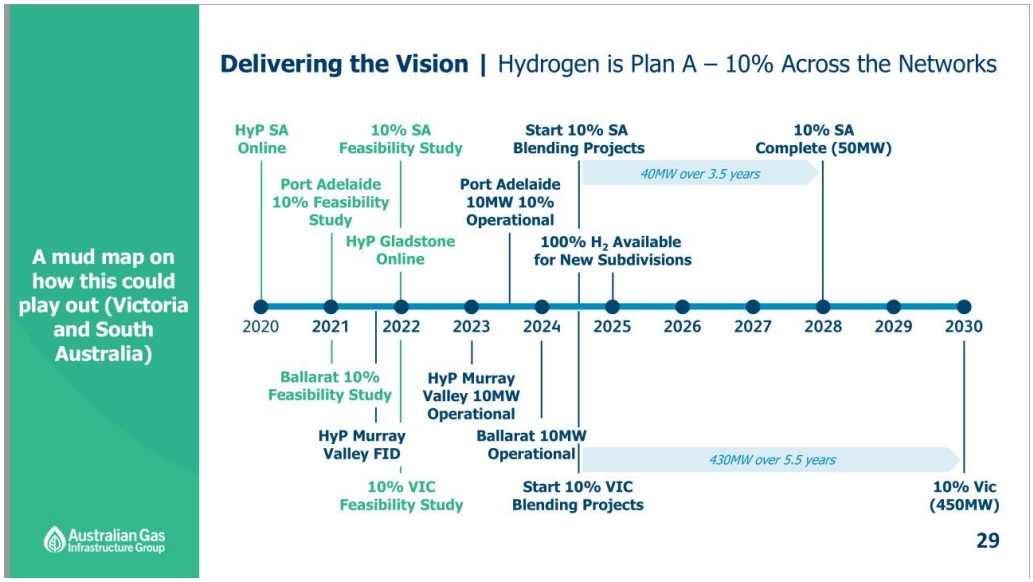
AGN float the idea that technology may mean that, in the future, gas pipelines do not have the market power the current regulation stems from. Substitutes are becoming more competitive. Prosumers are popping up everywhere.

But will hydrogen save the day?

With significant financial support and subsidies from ARENA and state governments, AGN has invested heavily in hydrogen becoming economic, much quicker than the National Hydrogen Strategy predicted in late 2019. AGN has also made a significant reputational investment in hydrogen.



Key to AGN's outlook for 2026-31 is that the pressures for accelerated depreciation will be less because of the outlook for hydrogen.



The South Australian Government supports this position[10]:

> "Related to this proposal is AGN's discussion on the future of gas and its recommendation not to change the economic lives of its assets and therefore the existing approach to depreciation. The South Australian Government supports this proposal at this point in time given the development of a hydrogen industry and its potential use in gas distribution networks."

Which is not surprising given the political investment they are making in hydrogen. We would argue that hydrogen is only relevant to a decision around accelerated depreciation if it were expected to be 'economic' (i.e., ~$1.20/kg *delivered*) before 2030. Not even AGN is forecasting that. We are not convinced, as AGN seems to be, that there will be sufficient information in 2025 to make that decision.

The consequence of our view is that the promise of hydrogen some time in the future beyond 2030 should not be a reason to delay consideration of shorter asset lives. To do so is inconsistent with a no regrets framework. We now comment on this more in the sometimes fraught context of 'equity'.

How do we define 'equity' and is it all that matters?

There are many definitions of 'equity' and they are often in the eye of the beholder. In discussing the options AER might consider in a future review of the gas rules and stranded assets, AGN argue[11]:

> "Capital contributions (effectively network entry fees) and exit fees may be a way of avoiding the socialisation of stranded asset risk across the whole network, but they also have equity considerations as they impact disproportionately on vulnerable customers. Higher entry fees may prevent vulnerable customers from connecting to our network now, and thus obtaining the benefits it currently provides, and higher exit fees may result in their

[10] See p. 5 https://www.aer.gov.au/system/files/SA%20Minister%20Energy%20%26%20Mining%20-%20Submission%20AGN%20Access%20Arrangement%20-%203%20August%202020.pdf
[11] Attachment 9.6 p.6

being unable to leave the network, and thus facing higher future costs as those who can pay the exit fee leave."

But:

- Not charging capital contributions to those customers who are not vulnerable is also inequitable because it means greater cross subsidisation will be required from existing vulnerable customers to new customers who require the new assets
- High entry charges preventing vulnerable customers from entering the gas market may be in their long term interests; once they get into the market, they may face barriers exiting (e.g., exit fees, the costs of converting to electricity even with Government subsidies) and be stuck with the ever increasing stranded asset risk as higher income consumers are able to exit (by paying the exit fees and the costs of conversion).

Which is why we argue for consideration of a long term NGO and intergenerational equity. That involves consideration of:

- Government policy
- Technological change as it impacts on the relative price of electricity and hydrogen

Our analysis of the issues has led us to the view that, if you consider today that economic hydrogen will not be available before 2030 (which, arguably, would allow a relatively quick move to increased blending with the ultimate objective of 100% hydrogen around the 2045-2050 when zero net emissions policies are likely to aim for), then there is a strong case in equity that the earlier a reduction in asset lives occurs the better.

We recognise this can be a two-edged sword. Reducing asset lives increase prices that, depending on changing elasticities, may accelerate the switch out of gas. But the longer the delay the more likely elasticities are less favourable to gas. As AGN say[12]:

> "However, if the elasticity of demand is rising through time then the situation changes because the effect on demand of a price rise through more depreciation now will be less than the effect on demand of a price rise in the future. In some instances, it may, therefore be preferable to allow acceleration of depreciation to begin earlier than right before the asset is due to be retired. This is because it will have less of an effect on demand through time and will avoid situations like future customers who cannot switch (since elasticity of demand is not uniform; vulnerable customers with fewer alternatives have lower elasticity) being left to pay costs that current customers would have been willing to pay because the price rise from foreseeable, necessary acceleration of depreciation is delayed.
>
> …the AER will need to consider the new element of demand elasticity when making its decisions."

Delaying a decision in the name of 'keeping the hydrogen option open' has a cost that is likely to be borne by vulnerable customers. Our approach still enables the hydrogen option to be kept open but also is a least regrets options if hydrogen proves not to be a successful competitor to renewable electricity.

The Attachment goes on to discuss the issues around how accounting for economic asset stranding might work in practice. The seminal work of Richard Schmalensee and the subsequent development

[12] Attachment 9.6 pp12-13

of these ideas by Crew and Kleindorfer in relaxing Schmalensee's assumption of no technological progress is discussed. The conclusion, quoting an ACCC/AER working paper by Daryl Biggar, is that:

> "The result, unsurprisingly, is that front-loading of capital recovery is essential if the regulated firm is to remain viable.
>
> In essence, when the regulated firm will be constrained by other forces in how much it can recover in the future, the regulator must take this into account in the present, and allow the firm a higher rate of depreciation. This is the origin of the tilted annuity concept used by some regulatory authorities in telecommunications regulation. Crew and Kleindorfer point out that traditionally there has always been a sense among regulators and utilities that problems could be put right "at the next rate case". However, they emphasise that this is clearly not always true. If some other constraint – such as changes in demand or technology – prevents the regulated firm from earning a normal return in the future, the regulator must take that into account in its depreciation policy today."

The Attachment then goes on to discuss the "Window Of Opportunity PaSt" (WOOPS) model to put this conclusion into practice.

So, it seems a lower AER bar and hence adjusting asset lives sooner rather than later is not only equitable, but also efficient.

But should consumers pay?

The discussion so far has been on the assumption that consumers will pay for stranded assets. Evoenergy held a workshop on stranded assets where participants were asked about their willingness to pay under various scenarios depending on the level of accelerated depreciation eg just new assets ($2.80/yr for ACT+NSW), new plus existing assets ($54.50/yr for ACT + NSW and all assets). One interesting result was that[13]:

> "There was a strong opinion held by a number of participants that the costs of reduced asset lives should not be borne by customers at all."

With one feedback theme of[14]:

> "Government and taxpayers should contribute to the burden of covering costs of stranded assets, given it is government policy causing them to be stranded. It was noted by one contribution that lessons can be learnt from the Government's response to COVID-19 on how to address significant increase in social costs."
>
> "… commentary suggesting government and the broader tax-paying population should cover the costs, noting that the proposal to reduce asset lives was born out of government policy to eliminate gas usage."

This fundamental issue is one that deserves considerable stakeholder engagement in any review of the gas rules.

The future of gas cannot ignore the future of electricity

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[13] See discussion at p7-9 https://www.aer.gov.au/system/files/Evoenergy%20-%20Communication%20Link%20-%20Attachment%204.1%20-%20Stranded%20asset%20risk%20deep%20dive%20report%20-%20January%202021.pdf

[14] Ibid

While Governments are legislating zero emissions targets and implementing policy to replace gas with renewable electricity, the costs are not simply for some subsidies to facilitate this. There is also the issue of what will be the additional costs on the electricity network for this transition to occur. It is certainly an issue in the ACT with its peak winter gas heating demand. It will be less important in South Australia but still relevant. How much increased capital will SAPN seek for its 2025-30 reset to account for a move from gas to electricity?

Conclusions

As our various pieces of Advice to the AER over the course of the AGN and Evoenergy AA resets have indicated, there are very complex issues at play here. Consumers are only starting to become aware of the complexity and need to be educated about options to make an informed contribution to the debate.

We hope the review of the gas rules the AER discusses happens in the near future. It will take time to bring the issues into full visibility to consumers who are going to be asked to make some tough decisions.

6. Capital Expenditure

Revised Final Plan

AGN has recently provided this overview to CCP24 (and other stakeholders) to summarise changes between their final plan and revised final plan, with reference to the AER draft decision.

Capex overview

	Final Plan	AER Draft Decision	Revised Final Plan	Key drivers
Mains Replacement	294.0	209.4	259.2	• We have not accepted all proposed amendments from the Draft Decision • Our revised proposal is supported by recent network performance information and expert advice from GHD
Meter Replacement	20.7	20.6	20.9	• No change to Final Plan and DD
Augmentation	11.5	11.6	11.6	• No change to Final Plan and DD
Telemetry	2.0	2.0	2.0	• No change to Final Plan and DD
IT system	36.5	36.3	51.3	• No change to Final Plan and DD projects for the next AA period • We have updated timing for some projects currently underway, reducing current period IT capex and increasing next period IT capex
Growth	147.4	146.8	128.9	• Removed capex associated with Mt Barker extension and updated for new information on forecast connections
Other distribution system assets	61.5	51.6	50.1	• We have accepted deferral of some ILI capex and revised down our valve replacements
Other non-distribution system assets	5.1	5.1	5.2	• No change to Final Plan and DD
Gross Total	**578.8**	**481.4**	**529.2**	

AGN says *"We have accepted many aspects of the Draft Decision but have responded on:*

Current period capex –we have updated for actual capex for 2019/20 and a revised forecast capex for 2020/21, which updates timing for a couple of IT projects and our decision not to proceed with the Mt Barker extension at this time

- *Mains replacement –we have proposed 770km of proactive mains replacement, which is 163km more than the Draft Decision, but 90km less than our Final Plan and:*
- *maintains our Final Plan position of 558km of low pressure CI/UPS and 198km of high pressure HDPE 575 replacement*
- *Accepts the AER's Draft Decision to defer 90km of medium pressure HDPE 575 replacement*
- *Other distribution capex –we have proposed proactive replacement of 9 previously leaked valves as per the AER Draft Decision (compared to 16 in our Final Plan)"*

Summary of our revised Final Plan positions:

Capex	Final Plan	AER Draft Decision	Revised Final Plan
CI/UPS Block	558km of CI/UP LP Block Replacement (completion of the program within the next AA period)	Defer 115km to subsequent AA period - $34m (pushes completion out ~18 months)	Maintain our Final Plan position
HDPE DN40 HP	198km of HDPE DN40 575 Replacement (replace all mains pre-1993 which are susceptible to SCG and sudden failure)	Defer 48km to subsequent AA period - $13m (fault data shows reduced failures from circa 1990)	Maintain our Final Plan position
HDPE DN40 MP	90km of HDPE 575 DN40 Replacement (replace all mains pre-1993 which are susceptible to SCG and sudden failure)	Defer 90km to subsequent AA period - $36m (fault data doesn't indicate replacement is cost effective)	Accept the Draft Decision
Inline Inspection (ILI)	Undertake FEED studies for M12/84, M42 and M101; pipeline modification and ILI to M12/84	Defer FEED studies for M42 and M101 - $8m	Accept the Draft Decision
Valve Replacement	Replacement of 32 network valves. - 16 inoperative valves - 16 previously leaked valves	Defer 16 proactive replacements of previously leaked valves until they are inoperable - $2m	Modify our position to proactively replace 9 of 16 previously leaked valves based on potential customer supply risk

The mains replacement program remains the major item of capital expenditure and was challenged by the South Australian Office of the Technical Regulator (OTR) in their submission to the AER, through the South Australian Minister. This has led to careful review of the mains replacement program that was proposed.

Mains replacement program

In our statement of Advice regarding the Final Plan, we said"

> "We understand that consumer groups and the SARG have a good understanding of the merits of the mains replacement program and have been supportive of it for some time and continue to be positive about the merits of the program and the safety benefits, including reductions in unaccounted for gas through leaks from fragile mains. The other aspects of this category of expenditure also appear to be reasonable costs associated with maintaining the network. We have no reason to consider this "Safety and Reliability" category of expenditure to be inefficient and so we accept this category spending proposal, pending checking for reasonableness by the AER capex team."

We considered that the finalisation of the mains replacement program over the next access arrangement period was prudent and sensible. We also indicated our understanding that consumers are also satisfied with the proposal.

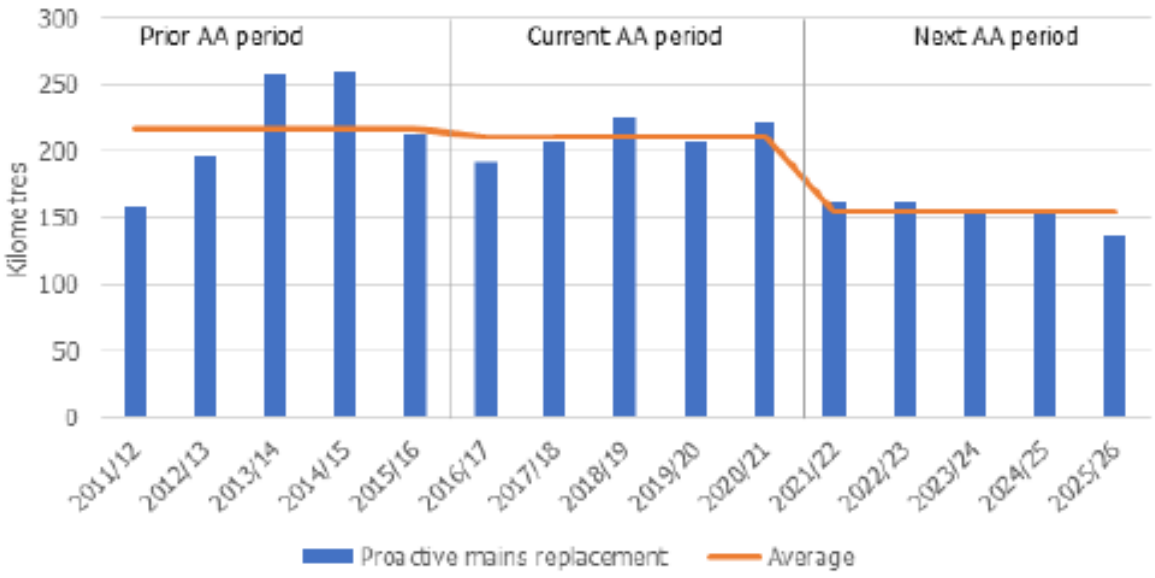
In their submission to the AER the OTR said"

> "The success of the mains replacement program, and in particular the replacement of cast iron mains, is demonstrated by the significant reduction in unaccounted for gas (UAFG) of around 68% since 2008-09. In light of these advancements, the AER should examine whether the volume of the accelerated program still necessary and whether the continued proposed high capital expenditure of $294 million in 2021 to 26 is prudent. Furthermore, the South Australian government notes that AGN is forecast expenditure of $272 million in the current period is 58 million less than the AER's final decision. There is no doubt that mains replacement will be a continued activity to ensure the ongoing safety of the gas network, however, the expenditure on mains replacement in any given period should reflect reductions in risk already achieved."

AGN says that in the current period they will replace 1052 kilometres of mains which they say is consistent with their commitments to both the OTR and AER. They also say that "Our revised Final Plan proposal will complete the replacement of all remaining high risk low pressure CI/UPS mains, another significant safety milestone for our customers and our business with the added benefit of:

- Upgrading supply in these areas to high pressure
- Allowing the network to supply hydrogen to our customers in the future."

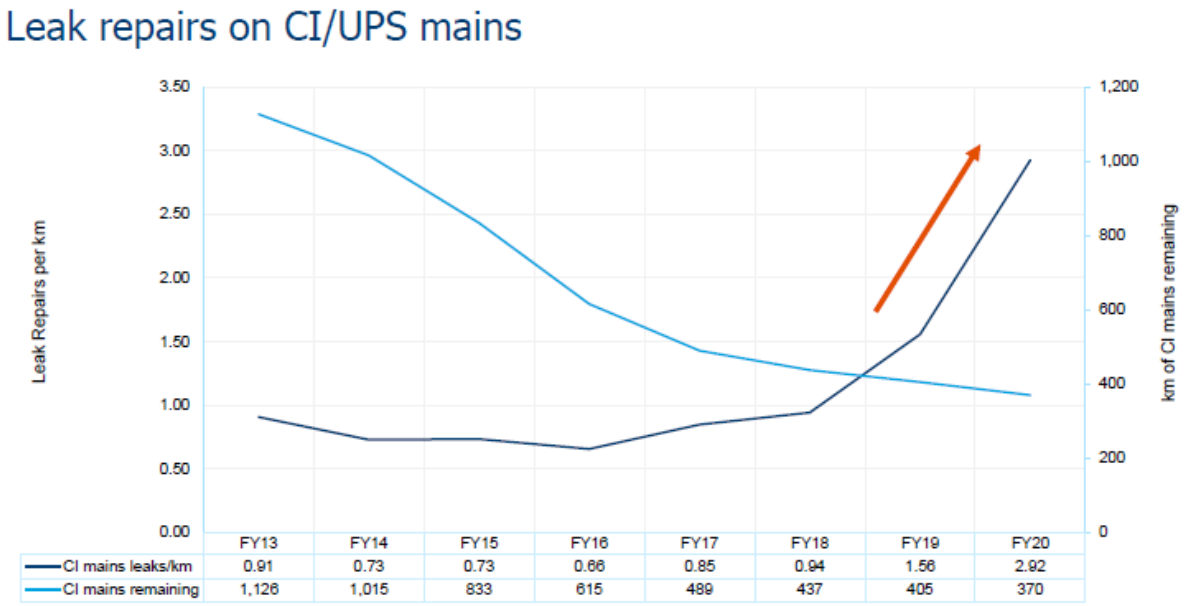
The following chart has been provided by AGN showing this annual and regulatory period average mains replacement expenditure over the previous, current and next period



AGN has also provided the following graph which shows leak repairs on both cast-iron and UPS mains for financial years 2013 through to 2020. There has been a sharp increase in failure rates per

kilometre of mains over the last two years which AGN advises "correlates with the slowing of the CI/UPS block program in favour of HDPE replacement."

AGN also advise that "the cheapest way to remove these mains is through block replacement." This being in response to the suggestion that only the worst sections of mains need to be replaced. In other words, it is more cost-effective to replace the whole main, which can include cast-iron and polyurethane pipe, rather than just replacing the worst sections.



Mt Barker

CCP24 recognises the decision by AGN to not proceed with expanding the network into Mt Barker and have considered impacts on the revised Final Plan. AGN recognizes that:

> "The decision to not proceed with the extension of our network to Mount Barker affects the revised Final Plan in a number of ways including:
>
> - Opex–a reduction of approximately $350,000 in opex by 30 June 2026
> - Capex –a reduction of around $67 million ($2020/21) in capex
> - Demand –a reduction of around 2,500 residential customers, 65 commercial connections and4 industrial connections by 30 June 2026

Total impact of removing Mt Barker was for a reduction in revenue of $8.0m ($2020/21) and a reduction in price of 0.3%"

CCP24 Comments

While the impact of not proceeding with the Mt Barker expansion reduces capex by $67 million (real) over the regulatory period, it does not have a substantial impact on the 2021-26 period because customers are only paying a part of the cost of that capital in the next period as total payment would occur for the life of the asset.

CCP24 is satisfied that the Mt Barker costs included in the Final Plan have been removed in the revised Final Plan, so there is no residual cost for customers.

Mains Replacement

We understand that the mains for replacement are classified into three different material classes

a. Cast Iron mains which are the oldest mains and those most likely to leak and consequently pose a safety (and environmental) risk
b. High Density Poly Ethylene (HDPE) which has a high level of impermeability and strong molecular bond making it suitable for high pressure pipelines, including for gas. It has been widely used to replace the more crack prone cast iron mains.
c. High Density Poly Ethylene (HDPE) for lower pressure mains

The discussion, particularly since AGN lodged their Final Plan has been about which classes of mains needed to be replaced and how quickly this needed to occur. AER accepted OTR advice that there was no hurry to complete the mains replacement over the next access arrangement period, particularly for the HDPE pipes. These pipes were considered to be in reasonable condition from 1990 and so there was no need to replace them during the next regulatory period, the pipes should have a life of at least 40 years.

CCP24 members have learned that installation techniques, particularly "squeezing off" improved from 1993.

Chevron division, Performance Pipe describe the "Squeezing -off process as follows[15]:

"Squeeze-off is a technique used to control the flow of gas or liquid in polyethylene pipe by compressing the pipe between parallel bars until the inside surfaces make contact. The flexibility and toughness of most polyethylene pipes allow the pipe to recover from a properly made squeeze-off without a measurable loss in service life. Under some conditions, the operator or installer may obtain a complete flow shut-off. Other conditions may require a second squeeze-off tool in line to achieve complete flow shut-off."

The inferior squeezing-off techniques up to 1993 for AGN gas main installation means that pre-1993 HDPE is more likely to develop cracks, particularly for high pressure applications.

For us, the significant increase in leaks per kilometre over the past couple of years and the fact that the mains replacement program can be completed in the next regulatory period, at a lower rate of replacement than has occurred over the current period, lends weight to the AGN revised Final Plan proposal, which is less than their Final Plan and higher than the AER Draft Determination.

Consequently, we support mains replacement over the next access arrangement period for all cast iron and high pressure, pre 1993 HDPE mains in the AGN network. This means that we think it prudent to defer pre 1993 HDPE mains replacement for lower pressure mains until the subsequent regulatory period. AGN advises that this would mean deferring about 90km of mains replacement until after 2026.

[15] Microsoft Word - PP 801-TN Polyethylene Pipe Squeeze Off 04-11-2006.doc (cpchem.com)

We accept replacement of 558km of cast iron mains and 198km of pre-1993 HDPE high pressure mains during the 2021-26 regulatory period

We understand that there's been regular discussions about the mains replacement program between AGN, the AER and the OTR and that the parties are likely to be close to resolution of differences of opinion in the near future. Should this not be the case, we would defer to the technical expertise of the OTR, for safety considerations.

Non-System capex

Draft Decision and Revised Final Plan

AGN's Final Plan included an expenditure forecast of $36.5m for IT system capex, of which the AER approved $36.3m in the Draft Decision. In the Revised Final Plan, AGN has significantly increased its IT system capex forecast to $51.3m, an increase of $15m[16] or ~40%.

The reasons for the increase are reported to be[17]:

- Delays in the delivery of three major projects (the GIS Upgrade, Business Intelligence and Mobility) which are underway in the current period, resulting in a slippage of $11m from the current period to the next;
- Increase in forecast costs for the GIS Upgrade project - $1.1m; and
- System changes required as a result of recent rule changes - $0.6m.

The IT system capex allowance for the current period was $62.3m, with the Draft Decision reflecting actual/estimated expenditure of $41.8m[18], a $20.5m reduction on the regulatory allowance. The Revised Final Plan reduces actual/estimated IT system capex for the current period even further to $31.2m, primarily due to the project delays mentioned above.

CCP24 Comment

Based on the Draft Decision, we understand that the IT system capex projects included in both the current period IT work program, and those forecast for the 2021-26 period in the Final Plan have largely been assessed as conforming capex by the AER. We accept that assessment.

With regard to the $11m proposed for deferral from the current period to the next, we seek assurance that customers are not paying twice for the same deliverable, and that any benefits accrued from the inclusion of this expenditure in the current regulatory allowance are recovered as part of the re-assessment of allowances for the next period.

Following the project slippages, it is forecast that AGN will deliver an IT system work program valued at approximately $31m during the current period, yet is proposing an increase in the IT work program of around 50% for the next period. CCP24 advises the AER to

[16] AGN Revised Plan, Attachment 8.11, p3
[17] AGN Revised Plan, Attachment 8.11, p14
[18] https://www.aer.gov.au/system/files/AER%20-%20Draft%20decision%20-%20AGN%28SA%29%20access%20arrangement%202021-26%20-%20Attachment%205%20-%20Capital%20expenditure%20-%20November%202020.pdf, p4

assess whether the proposed program of work is practically deliverable based on recent performance.

7. Operating expenditure

Draft Decision and Revised Final Plan

The Draft Decision provided an alternative estimate because the AER was not satisfied that AGN's proposal meets the opex criteria and the requirements for forecasts as estimates. The alternative estimate was $27.9m lower than the AGN proposed $361.8m. The major causes were:

- Greater base year adjustment down
- Did not accept three step changes – two (customer relationship management experience and vulnerable customer assistance programme) because they did not meet the step change requirements even though there was strong consumer support; and one (insurance) because it is captured in the rate of change adjustment
- Lower UAFG costs

The revised Final Plan forecast opex for the next AA period is $351 million, which $21 million (or 6%) higher than the forecast opex in the AER's Draft Decision but $7 million (or 2%) lower than the original Final Plan submitted July 2021. Aside from the impact of various adjustments e.g., use of actual 2019/20 opex, update inflation etc forecasts, AGN submitted:

- Accepted UAFG Draft Decision on forecast volumes and inserted slight lower price assumptions, and
- Provided further evidence for step changes - the vulnerable customer assistance program and the digital customer experience project

CCP24 Comment

Our comments focus on UAFG and the two step changes.

UAFG

We were pleased to see the AER accepting the AGN proposal to source a proportion of its UAFG from renewable gas. We previously provided advice to the AER on the strong support for this approach from AGN's consumer engagement[19].

In our August 2020 submission on the Final Plan[20], we discussed how the average commodity price might be lower were AGN to have the flexibility to source some of its gas from the spot market. The AER made no reference to this issue in its Draft Decision, apart from noting it was an issue raised in our submission[21].

[19] See https://www.aer.gov.au/system/files/CCP24%20%20-%20Advice%20on%20AGN%20customer%20initiated%20opex%20-%206%20October%202020_0.pdf
[20] See https://www.aer.gov.au/system/files/CCP24%20-%20AGN%20AA%20Advice%20-%2010%20August%202020.pdf
[21] See Attachment 6 Operating Expenditure p.10

Our proposition is that the AER consider how it might incentivise networks to look for lower commodity prices. One approach might be through flexibility in the level of take or pay (ToP) in the GSA to enable sourcing a component of spot gas when the price is favourable. We would expect there is already some ToP flexibility to cope with the forecast vs actual UAFG. We do recognise that the contract price can vary by the ToP level.

This would not require an in-house spot gas desk with one option being the service is provided by the gas supplier as part of the GSA. This will be a case-by-case proposition depending on the network's supply options.

Digital Customer Experience Step Change

This step change was proposed by AGN in their Final Plan with CCP24 reporting solid support from consumers through the engagement processes that were undertaken.

The AER Draft Determination rejected this as a step change stating:

> "While there was strong consumer support for AGN to undertake both projects (Digital Customer Experience and Vulnerable Customer Assistance Program), we do not consider that they have been justified as step changes. The customer relationship management system is a refinement of existing services provided by AGN and is compensated for through the forecast rate of change."

In the revised Final Plan, AGN has reinstated the Digital Customer Experience step change in its proposal, saying:

> "we are proposing the Digital Customer Experience Project as a step change. The Digital Customer Experience Project proposes to materially increase the quality of services we provide to our customers through an uplift in digital and self-service capabilities in the following ways:
>
> • CRM implementation – Allows us to deliver a materially improved customer experience by enabling us to capture, track and safely store customer information and respond to and update customers on enquiries and requests in a more proactive and timely manner.
>
> • Website enhancement and upgrades – Materially improves customer experience through proposed website enhancements and upgrades to deliver new self-service capabilities and channels of communication. …
>
> • Meter reading app development – Allowing our customers more personal control over their meter readings, increased visibility into their usage and allow them to engage with us at a time, place and channel that suits, alleviating potential property access issues due to missed communications.
>
> • Automated SMS – Ensuring important events are communicated to our customers in a timely manner by replacing unreliable paper-based and manual communications. This will deliver a better-quality service to our customers, particularly to our life support customers for whom it is critical that our notifications of planned maintenance that will affect their gas services are effective."

AGN reinforce their opinion that this is a new cost, not an extension from their existing cost base. The program has strong customer support and will enhance services for customers. Improved customer service is an expectation that consumer groups have increasingly and that we share.

In our Advice on the Final Plan, in supporting the step change we said:

> "This proposal was supported by consumer engagement and is consistent with AGN's proven record in actively seeking to improve interaction with customers."

We retain support for the proposal for the same reasons and we are satisfied that it is a "step up" on existing IT capability for AGN, a concern raised by the AER in the draft determination.

Vulnerable Customer Assistance Program

Draft Decision and Revised Final Plan

Following extensive engagement prior to lodgement of their Final Plan, AGN proposed the Vulnerable Customer Assistance Plan as an opex step change in the Final Plan, at a cost of $3.9m. In October 2020, CCP24 provided Advice to the AER on a group of customer-initiated opex programs, including the Vulnerable Customer Assistance Program (VCAP)[22]. In summary, for the VCAP – we identified that engagement supports the proposed VCAP in principle, with a number of stakeholders seeking further clarification of project details.

The AER Draft Decision did not accept the VCAP step change, and sought further information that the program will materially increase the quantity or quality of services provided by AGN.

AGN has re-proposed the VCAP (unchanged) as a category specific forecast in the revised Final Plan, and provided additional details about the services and proposed features of the program.

Since the Draft Decision, AGN has carried out further engagement on the VCAP to clarify the elements of the program, and address concerns that had been raised by stakeholders. See further details in Section 4 of this Advice.

More details of the scheme elements are shown below:

[22] https://www.aer.gov.au/system/files/CCP24%20%20-%20Advice%20on%20AGN%20customer%20initiated%20opex%20-%206%20October%202020_0.pdf

Stakeholders were generally satisfied that the scheme does not duplicate existing programs of work, however the operation of the program needs further detailed definition. AGN states that "we are refining and further development our VCAP proposal. We intend to continue our engagement efforts in program design and implementation."[23]

CCP24 Comment

CCP24 supports the VCAP proposal. This is a new initiative for a regulated network business, and we believe that it has strong support from customers. At $3.9m, the forecast cost is within the parameters agreed with customers during the engagement process.

As the program needs more refinement and definition for the design and implementation stages, we suggest that it should be considered as a pilot during the 2021-26 regulatory period, with a formal review and assessment prior to the next access arrangement. We endorse the reclassification of this initiative as a category specific forecast in the revised Final Plan, rather than see it absorbed into base opex on an ongoing basis.

As expressed in our Advice on the Final Plan, CCP24 continue to hold the view that:

- some of the marketing budget be applied to the vulnerable customer assistance program, with reduction in the total amount paid by customers for vulnerable customer assistance, particularly as the marketing budget that would have been applied to the Mt Barker extension will no longer be required; and
- shareholders should make a contribution to the cost of this program too; it should not be paid for entirely by customers.

[23] https://www.aer.gov.au/system/files/AGN%20-%20Attachment%207.2A%20-%20Addendum%20to%20Opex%20Business%20Case%20-%2013%20January%202021.pdf, p6

8. Incentive mechanisms

Draft Decision and Revised Final Plan

In its Final Plan, AGN proposed continuation of the existing Efficiency Benefit Sharing Scheme (EBSS), and introduction of a Capital Efficiency Sharing Scheme (CESS). CCP24 supported both proposals in our Advice to the AER on AGN's Final Plan.[24] The Draft Decision approved both proposals with minor amendments to the EBSS which have been accepted by AGN.

As part of its consumer engagement program leading up to lodgement of the Final Plan, AGN consulted with its customers on the option of introducing a network innovation allowance. Customers generally supported the introduction of a modest scheme at a cost that translates to around $1 per year on an average customer's bill. AGN did not include a proposal for a network innovation allowance in its Final Plan, commenting that:[25]

> *The scope and form of the allowance will be the subject of ongoing consultation with our customers and stakeholders, the AER, and the wider industry over the coming months.*

CCP24's Advice to the AER on the Final Plan stated that[26]:

> *We support a network innovation allowance in principle and look forward to observing the engagement process and stakeholder views.*

Subsequently, in the Revised Final Plan, AGN provided further information as follows[27]:

> *we have commenced a sector-wide engagement program on a gas network innovation scheme (GNIS) in partnership with Jemena Gas Networks and AusNet Services. This engagement is continuing, and if timing permits, we may present an updated proposal prior to the AER's Final Decision.*

CCP24 Comment

CCP24 congratulates AGN on taking the initiative to explore possibilities for the introduction of a NEM-wide GNIS, in partnership with Jemena Gas Networks and AusNet Services. We continue to support network innovation schemes in principle, and welcomed the opportunity to observe the GNIS phase 1 workshops. Only a limited number of external stakeholders have been engaged in these workshops to date (~5), and our assessment of their response to the need for a GNIS is that it has been 'lukewarm'. We observed opposition to the proposal from retailers and mild support from customers. It was noted that there already is support for innovation in gas

[24] https://www.aer.gov.au/system/files/CCP24%20-%20AGN%20AA%20Advice%20-%2010%20August%202020.pdf, p33
[25] https://www.aer.gov.au/system/files/AGN%20-%20AGIG%20-%20Final%20Plan%20-%201%20July%202020_0.pdf, p123
[26] https://www.aer.gov.au/system/files/CCP24%20-%20AGN%20AA%20Advice%20-%2010%20August%202020.pdf, p33
[27] https://www.aer.gov.au/system/files/AGN%20-%20Access%20Arrangement%201%20July%202021%20to%2030%20June%202026%20-%20Overview%20-%2013%20January%202021.pdf, p10

provided by ARENA and state governments. We are not yet convinced that widespread support for introduction of a GNIS has been demonstrated.

To the best of our knowledge an application for a GNIS to apply to AGN in the period from 2021-26 has not yet been made.

9. Customer numbers and volume forecasts

In responding to the Final Plan, we commended AGN on the thoroughness of their demand forecasting for all customer classes and recognized that the approach adopted by their consultants, CoRE Energy was consistent with the methodology accepted by the AER. We also said:

> "We also note that there is limited consideration of COVID impact in the commercial demand customer forecasts, due to uncertainty and the relatively early timing in the COVID-19 process for the CoRE analysis."

We are also aware that the AER has accepted the demand forecasts for residential, small commercial, and industrial customers, as submitted, pending updates utilizing the most recently available source data.

As agreed, AGN has asked CoRE Energy to revise their earlier demand estimates to take into account known and likely demand impacts of COVID-19, which are given in attachment 12.1 of the revised Final Plan[28] .

The revised estimates have taken into account the following factors:

- "2019/20 actual consumption and connections data;
- 2019/20 Bureau of Meteorology weather data sourced to update weather normalisation;
- Housing Industry Association (HIA) data with the latest available report to forecast future dwelling commencements;
- Gross State Product (GSP) forecasts from the South Australian Treasury; and
- the outlook for electricity and gas prices."

AGN report that

> "In updating their forecast, Core have observed an impact to actual demand for the final quarter of 2019/20 (April – June) when COVID-19 lockdowns commenced. In the residential segment, actual natural gas consumption was 9% higher and weather normalised consumption was 3% higher than the two-year average over the same period. … With more people in lockdown at home, as expected, demand for gas increased beyond what would normally occur. In the commercial segment, again as expected, weather normalised consumption was 3% lower as many small businesses were forced to close or had restrictions imposed on their ability to trade normally. As Core note, the impacts of COVID-19 on average consumption in both the residential and commercial segments are expected to dissipate beyond 2021/22, with average consumption largely returning to the previously forecast levels."

[28]https://www.aer.gov.au/system/files/AGN%20-%20Attachment%2012.4%20%20Response%20to%20Draft%20Decision%20on%20Demand%20forecasts%20-%2013%20January%202021.pdf

The AGN decision to not expand the network into Mt Barker will have some impact on aggregate gas demand.

CCP24 Comment

We are satisfied that AGN's connections and demand forecasts for the next regulatory period are reasonable and are as good as can be expected in the current uncertain environment.

It is also evident that demand for gas connection for South Australian homes and businesses is continuing at near previous levels and is not substantially affected by COVID-19 or renewable energy policy, as is the case in the ACT.

CCP24 is aware that South Australia has weathered COVID-19 better than many jurisdictions and that HIA are forecasting likely higher connections driven by government stimuli, including the HomeBuilderscheme in SA. HIA are also reporting a change in the split of total connections with more detached housing and less medium density / high rise construction

It is also our understanding that the majority of new housing developments will be in the northern plains area of Adelaide, the area between Elizabeth, Virginia and the Gulf of St Vincent and on the Fleurieu Peninsula south of Adelaide. AGN has existing plans to provide gas network to these areas and so their forecasts about new connections are reasonable. Similarly, there is no evidence of substantive reduced gas usage per customer, beyond the adjustments made in the forecasts utilised by AGN.

We are also satisfied that the Mt Barker connections that were in the Final Plan have been removed from the revised proposal. Expansion into Mt Barker would have added customers to the AGN network.

CCP24 is satisfied with the revised demand forecasts that AGN have provided and accept that the changes in demand forecast in the revised proposal vary less for the original proposal than would be the situation in some other Australian jurisdictions where COVID-19 has had greater impact. Changes in demand of the magnitude of plus or minus 3%, depending on the customer segment, and weather normalized do not represent significant change in demand for gas.

10. Capability of Acceptance.

An important theme that has been explored, in part, through the AGN access arrangement proposal is the notion of capability of acceptance and in particular whether their proposal is capable of acceptance.

In response to the Final Plan we said:

"In this Advice we have identified 5 aspects of the proposal that are pending further action:

1. Consumer engagement regarding the market expansion issues and associated stranded asset risk.
2. AGN delivering the commitment to further engagement regarding the vulnerable customer strategy, up to the per customer cost ceiling supported during phase 2 and 3 engagement, as well as some demonstrated AGN contribution
3. AGN delivering the commitment to further engagement regarding their innovation strategy and innovation allowance

4. Review of productivity proposal by AER
5. Reasonable revisions of demand forecasts based on further understanding of COVID-19 impacts

If:

- AGN delivers on our suggested commitments outlined above – based on past performance and recent discussions with AGN we expect they will, and
- AER's review of the Final Plan shows that it meets all of the AER rules requirements,

then we believe the AGN AA proposal is capable of acceptance."

We consider that all five of the "action pending" items have been dealt with satisfactorily in the revised Final Plan, although we think that AGN should be making a transparent contribution to the Vulnerable Customer Assistance Program. So, we believe that with all relevant adjustments made for exogenously prescribed variables (rate of return, inflation, tax etc.), and an identified AGN contribution to the VCAP, then the revised Final Plan as lodged by AGN is capable of acceptance as providing a good outcome for AGN customers.