



**Submission to the Australian Energy Regulator in Response to
Australian Gas Network's Revised Regulatory Proposal for the
2016 – 2021 Access Arrangements**

**SACOSS Submission
February 2016**

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Contents

Introduction	1
Mains replacement	3
Unit cost of mains replacement.....	3
Speed of mains replacement	4
Capital Efficiency Sharing Scheme (CESS)	7
Opex	8
Step changes.....	8
UAFG volumes.....	9
WACC	10

Introduction

SACOSS welcomes the opportunity to now respond to the AER's Draft Decision and to AGN's Revised Regulatory Proposal (RRP). SACOSS is strongly interested in the outcome of the AER's determination and has previously made a submission in response to AGN's regulatory proposal (RP).

SACOSS advocates for low income and vulnerable people within the South Australian community and for all consumers. SACOSS is interested in the AGN gas distribution access arrangement 2016-2021 because of the way in which the determination will affect the ability of consumers to afford an essential service of gas supply. In this determination, SACOSS considers there is significant commonality between the interests of low income and vulnerable users of the AGN gas distribution network and other users.

As a broad comment, SACOSS supports many of the positions in the AER Draft Decision, in particular:

- The AER's substitute demand forecast estimates;
- The AER's substitute capital allowance for mains replacement;
- The AER's proposed mechanism to adjust reference tariffs to reflect movements in wholesale gas prices relative to the forecasts included in the AER's final decision and to remove unaccounted for gas (UAFG) from the efficiency benefit sharing scheme (EBSS);¹
- The AER's decision not to apply new incentive schemes without further consultation, including the proposed network incentive scheme, customer service incentive scheme, and capital efficiency sharing scheme (CESS).

SACOSS sees the major outstanding issues of concern as:

- Mains replacement. SACOSS is concerned that the unit rates for this work are still too high despite the marginal reduction of \$44m in the RRP, and that the speed of the program is in advance of what is necessary to deliver gas safely and reliably. SACOSS supports the substitute mains replacement budget adopted by the AER in its Draft Decision.
- CESS. SACOSS does not support the CESS at this stage as it risks providing AGN with a windfall profit if the unit rates for mains replacement or other capital programs provide opportunities for more than a normal profit.
- Opex step changes. SACOSS considers that there should be downward step changes to base year opex based on the lower costs of managing the network as it is replaced. SACOSS also considers that the productivity adjustment proposed by the AER should be retained.
- UAFG volumes and prices. SACOSS supports the mechanism proposed by AER in the Draft Decision for trueing-up forecast and actual UAFG gas prices. It considers, however, that the AER should have adjusted the estimated UAFG volumes to

¹ AER Draft Decision – Overview 16-17 and 43-44

account fully for the reduction from mains replacement. Having said this, if the AER approves a lower amount for mains replacement than AGN proposes in the RRP, then depending on the resulting replacement profile, it might be reasonable to accept AGN's proposed UAFG.

- Weighted average cost of capital (WACC). SACOSS considers that the WACC proposed in the RRP by AGN would over-reward AGN given the risks it faces in gas distribution. SACOSS is concerned as a matter of process that AGN has significantly increased its proposed WACC from the RP.

Mains replacement

Unit cost of mains replacement

SACOSS observed in its submission to AGN's RP that the unit rates proposed by AGN for 2016-21 are much higher than its unit costs during the 2011-16 access arrangement period.² The AER adjusted the unit rates proposed by AGN.

AGN has submitted new unit rates in its RRP. The majority of these unit rates are higher than those approved in the AER Draft Decision. AGN has presented an explanation of the reasons why the AER should adopt its higher unit rates in its RRP.³

SACOSS considers that as AGN (or its contractors) gain experience in contractor management and pipe replacement, unit rates should stabilise or come down, other factors being equal. In addition, the large and continuing nature of the mains replacement programs (under either the AGN or the AER approach) should provide significant economies of scale. Moreover, current economic conditions would point to AGN holding strong bargaining power in negotiating favourable unit rates.

AGN has justified the increases in unit rates in the RRP compared to the AER's Draft Decision on a range of bases depending on the type of pipe involved.

For CI/UPS General Block Replacement pipes, AGN's RRP points to 14 per cent higher rates as the result of recent tender processes.⁴ This reason is convincing to the extent that the tender outcomes relate to work of a similar scale and scope of work,⁵ cover the same multi-year period as the access arrangement period, and have been set at arm's length. SACOSS urges the AER to consider the representativeness of the tendered rates carefully.

For CI/UPS CBD Block Replacement and Trunk Replacement, AGN has argued for higher rates for some areas of the CBD because of the requirement to do night works. However, while AGN has explained a reason for a variation in some areas of the CBD, it is noted that this variation only relates to some areas of the CBD and AGN has not clearly explained the quantum of the overall increase in unit rates, which AGN states range from 30 per cent to 88 per cent.⁶

For services replacement, AGN states that its "revised proposal reflects the weighted average of the lowest unit rates for each tenderer".⁷ This approach does not seem as

² SACOSS submission in response to AGN Regulatory Proposal, pp. 6-7

³ AGN Attachment 8.9, pp. 31-32

⁴ AGN Attachment 8.9, p. 31

⁵ For example, if the tendered prices were for small parcels of work, they might not reflect the lower prices that could be obtained for larger parcels of work. If the tendered prices were for works in particularly challenging terrain (such as a more inaccessible part of the CBD or involving trenching in particularly hard rock), they similarly might not be representative.

⁶ AGN Attachment 8.9, p. 32

⁷ AGN Attachment 8.9, p. 32

sound as the AER's approach in the Draft Decision of taking the lowest two of the tendered quotes.

For HDPE Replacement (Class 250 and 575) AGN's RRP "updated [the] proposed rate to reflect recently received tendered contract rates. The resultant revised unit rate proposal is approximately 34% lower than our Initial AA Proposal".⁸ This explains why the overall blend of unit rates and change in mix of pipes to be replaced results in AGN's RRP of a reduction of \$44m in the overall capital budget for mains replacement.

For CI/UPS Medium Pressure Trunk Mains Replacement, AGN takes issue with the AER's approach to "reflect the weighted average contractor rate for three suburbs only". AGN maintains "that the weighted average three-year rate remains the best forecast or estimate possible under the circumstances".⁹ While AGN's approach sounds reasonable, it is startling that it leads to unit rates 66 per cent higher than the AER's unit rates. The very large jump from the AER approach to the AGN approach would suggest a high level of volatility in unit rates across suburbs and would warrant further investigation.

SACOSS urges the AER to closely assess the proposed unit rates in AGN's RRP as the unit rates have a major impact on the overall capital budget.

Speed of mains replacement

AGN's RP proposed a mains replacement program to replace 1,273 kilometres of mains pipes (all CI and UPS and some HDPE) at a forecast capex of \$369.9m. The AER Draft Decision was to approve \$167.7m of mains replacement capex.¹⁰ AGN's RRP proposes to replace 1265 kilometres of mains pipes but give priority to the mains most at risk, meaning replacement of more HDPE and less CI and UPS for a budget of \$326m, a reduction of \$44m.¹¹ AGN states that the "revised capex of \$326 million (compared to \$370m in our Initial AA Proposal) is the result of updated unit rates and competitive tendering conducted since July 2015. Notably, the unit rates relating to replacement of HDPE mains have decreased materially since the Initial AA Proposal".¹²

In its RRP, AGN provided a risk matrix assessment of the risk of the CI, UPS, and HDPE pipes, together with a report by Jacobs and other observations of UK and US experience, and an affidavit from John Ferguson the Group Executive, Networks at APA (attachments 8.11, 8.14, 8.16, and 8.17).¹³

There are a number of arguments against speeding up the mains replacement program compared to the rate approved in the AER Draft Decision:

⁸ AGN Attachment 8.9, p. 32

⁹ AGN Attachment 8.9, p. 32

¹⁰ AER 6-28

¹¹ AGN Attachment 8.10, p. 2

¹² AGN Attachment 8.10, p. 2

¹³ AGN RRP p. XII. APA carries out the capex program on behalf of AGN.

- The rate of “leakages per kilometre of pipe have been declining at a rate of about 200 leaks per year”, as reported by the Office of Technical Regulator in South Australia (OTR).¹⁴ Observed actual rates and trends are likely to be more reliable than some of the desktop risk matrix assessments and international experiences presented by AGN.
- AGN engaged in a major campaign of mains replacement during the 2011-16 access arrangement period. The AER accepted “\$392.6 million (\$2014–15) of total net capex for AGN during the 2010–2015 period as conforming capex”.¹⁵ Table 6.1 shows that mains replacement constituted \$241.9m (\$2014–15) of that amount. This program targeted high priority pipelines, leading to a significant reduction in UAFG.
- The AER Draft Decision was supported by an independent and disinterested technical analysis by its consultant, Sleeman.¹⁶
- AGN has a number of risk mitigation options available to it, including condition monitoring, repair, and spot replacement.

In relation to this last point, AGN has proposed a number of these measures as part of its management of the mains network, including: (i) increased frequency of leak surveys in areas identified as higher risk; (ii) pressure reduction in areas with a history of crack failure; (iii) increasing the level of gas odourisation; (iv) research and utilise inline camera technology to identify defects and effect temporary repair in HDPE pipe (Business Case SA52); (iv) continued installation of ground vents over HDPE mains in locations where ground conditions could seal in gas leaks (Business Case SA56); and (v) development of a reliability forecast model for predicting the remaining life of HDPE 575, so that risk mitigation strategies (including replacement) can be optimised (Business Case SA54).¹⁷

Following submission of additional risk and safety related material in the RRP, the AER will need to consider the appropriate volume of mains replacement to approve. In doing so, it will be important for the AER to assess the risk outcomes and the resulting need for mains replacement following implementation of approved strategies. While noting that some of these risk mitigation measures, such as SA52, SA56, and SA54 were not approved by the AER in the Draft Decision,¹⁸ following the submission of further material by AGN in the RRP the AER will need to evaluate the best options for maintaining safety and whether they lie in replacement or other risk management strategies.

SACOSS notes that a number of risk mitigation strategies were approved in the Draft Decision. One example is project SA21a - *Pitting issues under sleeve*, which “involves undertaking exploratory excavation to investigate and remediate corrosion on transmission pipelines where heat shrink sleeves have been used, and may have deteriorated”.¹⁹ The

¹⁴ AER 6-32

¹⁵ AER 6-6

¹⁶ AER 6-28

¹⁷ AGN Attachment 8.10, pp. 26-27

¹⁸ For example, in relation to SA54 the AER Draft Decision was that it was “not satisfied that AGN has adequately quantified the risks arising from its HDPE network components” and any “step changes related to HDPE need to be considered holistically as part of AGN’s revised risk assessment”: AER 7-27

¹⁹ AER 7-30

AER reclassified this project from capex to opex,²⁰ but accepted it as an opex project on the basis that it would address “newly identified risks ... arising from corrosion identified in other transmission pipelines where heat shrink sleeves have been used”.²¹ Another example is SA21 Southern Transmission Pipeline Replacement of TP Pipelines M21 and M53.

The AER will need to review whether implementation of these projects lessens the need for some of the mains replacement projects proposed in AGN’s RRP.

In assessing the safety case for mains replacement, it will be important to look at the totality of the evidence, and to the reasonableness of the basis for the projects. Project SA21 and SA71 illustrate the practical challenge for the AER.

For example, in relation to SA21 and SA71, the AER rejected the proposed capex for two significant project—Southern Transmission Pipeline (SA21) and Murray Bridge (SA71) totalling \$10.5m (\$2014–15, unescalated direct costs). AGN had proposed these projects because of pitting and corrosion in these pipes. The AER Draft Decision did not consider these projects were conforming capex because, on the advice of Sleeman, the extent of the pitting and corrosion did not justify replacement until after the end of the 2016–21 access arrangement period. AGN has responded to the AER’s decision at Attachment 7.1A of the RRP. It argues that the pitting in these pipelines would justify replacement a little ahead of the remaining life estimated using the American Society of Mechanical Engineers, American National Standards Institute and NACE international standards cited in footnotes 5 and 6 at page 9. AGN argues that:²²

Deferring the replacement by this period will result in the pipelines being replaced two to three years earlier than the estimated end of their useful lives, but in AGN’s view this is prudent given the risks and uncertainties associated with corrosion, and represents the least present cost.

AGN argues in the RRP that a monitoring or repair regime in place of replacement may have higher costs in the long term.²³

SACOSS suggests that in considering AGN’s further justification in the revised regulatory proposal, the AER will need to consider:

- Whether the ‘risks and uncertainties’ identified by AGN in particular projects such as SA21 and SA71 justify the bring-forward of replacement. This is because such risks and uncertainties are already incorporated into the relevant construction and maintenance standards including estimates of corrosion rates.
- More broadly, whether it would be better to consider if the bring-forward of the replacement is justified in view of the position under the relevant *Australian* standard for gas pipelines. It is noted that AGN’s analysis and justification was conducted under American standards. If the Australian standard provides a relevant

²⁰ AER 6-28

²¹ AER 7-30

²² AGN Attachment 7.1A p. 9

²³ AGN Attachment 7.1A pp. 10-12

approach to estimating corrosion rates and management approaches, it may be better to apply the Australian standard. This is because consistently applying the Australian approach avoids the possibility of forum shopping for a standard which justifies a particular outcome, the Australian standard was developed to reflect Australian weather, seismic, soil, and other environmental, and climatic conditions, and the Australian standard reflects Australian standards in steel manufacture. American standards for steel pipe manufacture are understood to differ from Australian standards, meaning American pipelines under American conditions could corrode at different rates to Australian pipelines. Jacob's expert report to support the mains replacement notes that replacement of cast iron pipes in the US and UK was based on seismic factors²⁴ – the impact of these factors on pipeline life in Australia may be different.

Having provided more information about risk assessment, the task for AGN remains to establish that these risk assessment measures could not substitute for a significant portion of the proposed mains replacement. A second task for AGN, if the AER does accept a significant expansion of the mains replacement program, is to justify whether some of these monitoring and remediation projects might still be required. For example, SA21a (*Pitting issues under sleeve*) might not be required (or not required to the same degree) if the AER allows a greater mains replacement capex budget. Approving both risk mitigation and mains replacement activities could result in excessive capex relative to that required to provide the regulated services prudently and efficiently.

Capital Efficiency Sharing Scheme (CESS)

SACOSS strongly supports the AER's draft decision not to apply a CESS. SACOSS agrees with the AER's view that it is pre-emptory to introduce a CESS at this stage ahead of consultation on how a CESS might apply in the gas transmission and distribution supply chain.²⁵

The gas industry differs significantly in its degree of capital intensity to the electricity industry, with a far higher ratio of capital to operating cost. Decisions in the gas transmission and distribution chain about unit rates and the required degree of capital replacement and augmentation are much more significant than in the electricity transmission and distribution chain. Errors about appropriate unit rates have much greater potential to deliver windfall profits (or losses) than in the electricity industry. This makes further consultation and assessment of benchmark unit rates the preferred approach to adoption of a CESS at this time.

SACOSS is concerned at the risk of a CESS incentivising AGN to seek to bring forward capital spending. If the unit rates approved for capital spending are above efficient levels, then the CESS could increase the existing incentive properties of the regulatory regime to overstate

²⁴ AGN Attachment 8.10, p. 14 quoting Jacobs report to the effect that, "Ground movement is the primary trigger for failure".

²⁵ AER Draft Decision – Overview, pp. 19-20. Also see AER 13-8 to 13-13 for elaboration on the AER's reasons not to apply a CESS at this time.

the required capital budget for the forthcoming access arrangement period.²⁶ SACOSS noted in its submission to AGN's regulatory proposal that the proposed unit rates are well above historical levels.²⁷ Part of SACOSS's concerns about the mains replacement program is that part of the reason for AGN to bring it forward is to obtain benefits under the CESS. SACOSS's concerns are increased by AGN's proposal that "there would be no such constraint on its per unit costs. ... That is, AGN would retain the full amount of any cost efficiencies it is able to achieve in delivering its capex program".²⁸

Opex

Step changes

AGN's RP proposed nine step changes to the base year (2014-15). The AER rejected all of these step changes.²⁹ In addition the AER proposed a downwards productivity adjustment step change.³⁰ The AER Draft Decision "applied an adjustment for productivity growth of 0.5% per annum over the next AA period", leading to a \$6m saving in opex over the access arrangement period.³¹

AGN's RRP proposes to remove the productivity adjustment.³² AGN rejects the productivity adjustment mainly on the basis that the adjustment is not firm-specific and draws on benchmark data from ActewAGL and other sources.³³ SACOSS considers it is reasonable for the AER to examine and make judgments about the scope and value of possible productivity improvements based on the experience of other distributors. In the case of monopoly providers such as AGN there are few other avenues to judge the scope for such improvements except to compare similar entities. The key is to select appropriate similar entities and similar bases for comparison. SACOSS supports the retention of the productivity growth step change in the Draft Decision.

AGN's RRP also repropose one of its nine step changes, SA44 Inlet Data Capture, at a value in the RRP of \$1.7m.³⁴ SACOSS considers that the cost of SA44 is sufficiently small relative to the total opex allowance over the 2016-21 access arrangement period of \$358.8m that it might be best considered part of the general opex allowance.

SACOSS considers there is also scope for the AER's Final Decision to adjust AGN's opex allowance to take account of the lower cost of maintaining the younger network that will result from the mains replacement program. AGN has already significantly invested in renewal of the network in 2011-16 and will be doing so again under either its RRP or the

²⁶ The existing incentives revolve around retaining the use of the capital and depreciation allowances where the distributor underspends capex for a given access arrangement period.

²⁷ SACOSS submission in response to AGN Regulatory Proposal, pp. 6-7

²⁸ AER 14-9

²⁹ AGN Attachment 7.8, p. 3

³⁰ AER Draft Decision – Overview, p. 43.

³¹ AGN Attachment 7.8 p. 9

³² AGN RRP p. VII

³³ AGN Attachment 7.8 pp. 9-18

³⁴ AGN Attachment 7.8, p. 6 and Attachment 7.1A, pp. 44-49

AER's Draft Decision. Examples of cost savings from the mains replacement program include less call-outs to address pipe breakages and leakages. The CCP noted that in its advice to the AER following the RP that:³⁵

Key drivers for [the mains replacement] program include reducing gas leakage from the network, and reducing the incidence of unplanned outages on the network. This level of investment should result in significant savings in operations and maintenance costs over the next AA period.

The CCP also urged the AER to take account of the expected savings from the major IT program rolled out in the 2011-16 access arrangement period, which included implementation of a new Enterprise Asset Management System, and the proposed IT systems proposed for the 2016-21 access arrangement period, including the Applications Renewal, the Geospatial Information System, Mobility IT, and Business Intelligence.³⁶

SACOSS urges the AER to consider a step change to reflect the lower costs of operating and managing a younger network.

UAFG volumes

SACOSS supports the mechanism proposed by AER in the Draft Decision to adjust reference tariffs during the access arrangement period to reflect movements in wholesale gas prices relative to the forecasts included in the AER's final decision. Current economic conditions including the dramatic fall in the price of oil (which strongly influences the price of gas internationally) point to the significant volatility in gas prices across the five years of the access arrangement. Adjusting the revenue cap for movements in wholesale gas prices removes potential for windfall gains (or losses) based on external factors outside AGN's control. SACOSS notes that AGN also supports the proposed adjustment mechanism.³⁷

SACOSS considers, however, that the estimated UAFG volumes adopted in the Draft Decision are likely to be overstated given the impact of the mains replacement program on the volume of UAFG. SACOSS's submission in response to the RP pointed to the relatively constant relationship between the mains replacement and the fall in UAFG, and that the UAFG forecast by AGN for the 2016-21 access arrangement period was only about half the observed fall in UAFG in the 2011-2016 period.³⁸

SACOSS accepts that if the AER ultimately approves a lower amount for mains replacement than AGN proposed in the RRP, then AGN's UAFG estimates could be expected to be higher. The AER Draft Decision adjusted the mains replacement to target a 25 per cent leak reduction target.³⁹

³⁵ CCP p. 9

³⁶ noting that not all of these programs were supported in the AER's Draft Decision

³⁷ AGN Attachment 7.8, p. 3

³⁸ SACOSS submission in response to AGN RP, p. 4

³⁹ AGN Attachment 8.10, p. 4

WACC

SACOSS restates the arguments in its submission in response to the RP in relation to the setting of the WACC.⁴⁰

As a matter of process, SACOSS is concerned that AGN could propose a WACC of 7.2 per cent in the RP but then raise this rate to 8.2 per cent in the RRP. SACOSS questions whether AGN should reasonably be raising the WACC at the RRP stage when arguably nothing has changed since the RP.

As a matter of process this reduces the opportunities for parties to respond to AGN's position. Stakeholders now have to respond in the four weeks between the 6 January 2016 and the 4 February 2016 to the revised WACC, noting that this four week consultation period heavily overlaps the traditional Christmas-New year holiday, and the RRP includes a large volume of new material to be considered.

By submitted a revised WACC much higher than its original WACC, AGN has deprived stakeholders of a reasonable opportunity to respond to a WACC of 8.2 per cent in the original RP, and the AER of considering stakeholder responses in determining its draft position on the WACC. As a result, there is no opportunity for the AER to respond with a draft position in response to the proposed WACC of 8.2 per cent, and for stakeholders to then respond to the draft position. In effect, there is no draft response by the AER in relation to the WACC of 8.2 per cent proposed by AGN, and this is of major concern given that the WACC is a large determinant of the tariffs paid by users.

The real and practical outcome of AGN's approach has been to deprive stakeholders of the opportunity to respond to a WACC of 8.2 per cent by AGN, to put views on that WACC to the AER and to respond to the AER Draft Decision on a WACC of 8.2 per cent.

AGN argues in its RRP that the revised proposed WACC of 8.2 per cent covers "all possible outcomes from the Tribunal [in relation to the Tribunal's review of the NSW electricity distributors]".⁴¹ It is unclear how the Tribunal decision could be considered a fresh circumstance. AGN lodged its RP with the AER on the 1 July 2015, which was *after* the NSW electricity distributors lodged their application for review of the AER's decision with the Tribunal.⁴² In any case, it has always been open to regulated entities to seek review of the AER's decision, and given the volume of such reviews and the amount of revenue involved it is hardly surprising that the NSW electricity distributors sought a review of the AER's decision. At the same time, it has always been open to AGN to put to the AER in its RP the same types of arguments that the NSW electricity distributors have put to the Tribunal in the current review, and in fact AGN have largely put similar arguments. It was open to AGN to put a WACC of 8.2 per cent to the AER in its RP based on the information available to it at the time of the RP.

⁴⁰ SACOSS submission in response to AGN RP, pp. 9-10

⁴¹ AGN RRP p. I and pp. VIII-IX

⁴² *Applications by Public Interest Advocacy Centre Ltd, Ausgrid, Endeavour Energy and Essential Energy* [2015] ACompT 2, paragraph 2.

SACOSS would welcome the opportunity to respond to a further draft decision on the WACC, or for the AER (where there is scope within the AER's powers to do so) to take account of the WACC approach taken by AGN in determining the WACC to award to AGN, or for the AER to consider and recommend rule-changes that limit the ability of regulated entities to change their position after the lodgement of the RP.