APGA
50 YEARS 1968–2018

Submission to the AER Discussion Paper

Estimating the allowed return on debt

30/05/2018

1. INTRODUCTION

The Australian Pipelines and Gas Association (APGA) welcomes the opportunity to comment on the Australian Energy Regulator's (AER) discussion paper *Estimating the allowed return on debt*.

APGA is the peak body representing Australasia's pipeline infrastructure, with a focus on gas transmission, but also including transportation of other products. Our members include owners, operators, constructors, advisers, engineering companies and suppliers of pipeline products and services. APGA's members build, own and operate the gas transmission infrastructure connecting the disparate gas supply basins and demand centres of Australia, offering a wide range of services to gas producers, retailers and users. The replacement value of Australia's gas transmission infrastructure is estimated to be $50 billion.

The economic regulatory framework which governs gas transmission pipelines is critical to maintaining the attractiveness of the pipeline sector as a destination for investment. Regulatory rates of return have the potential to facilitate successful pipeline businesses. Successful pipeline businesses support, in turn, a thriving industry sector.

APGA's comments on the discussion paper are set out in this submission. In the submission, APGA:

- notes the current approach to estimating the rate of return on debt;
- sets out its view that the benchmark credit rating remains BBB+, and that a broad-BBB rating remains appropriate when estimating regulatory returns on debt;
- supports continued use of the RBA and BVAL curves for credit spread estimation; and
- advises against lowering the benchmark term at issuance from 10 years.

2. KEY ISSUES

Current approach to estimating the rate of return on debt

As the discussion paper explains, the estimate of the allowed rate of return on debt is being transitioned, over a period of 10 years, into a trailing average estimate with a period of 10 years.

The AER has, in its regulatory decisions, commenced the transition into the trailing average, and the focus of the discussion paper is a series of practical issues which arise in the context of implementation of the approach.

Both the use of a trailing average estimate of the rate of return on debt, and the forward transition into the trailing average, have been contentious, and key conceptual issues remain, for APGA members, unresolved.

However, in this submission, APGA does not raise, again, any of those conceptual issues. APGA's submission focuses on the practical issues raised in the AER's discussion paper.

Benchmark credit rating

Any estimate of return on debt is influenced by assumptions about the credit rating of the issuing entity, and about the term of the debt issued.

In 2014, the AER's expert advisor, Dr Martin Lally, observed that the credit ratings of individual electricity network and gas pipeline businesses had been very stable over time and, where there were changes, these had highly plausible explanations.

Table 4 of the discussion paper shows that stability of the credit ratings continues to be the case, at least for those businesses which have operated as separately identifiable entities during the period 2013 to 2017.

The discussion paper asks:

Does the evidence support continuation of a BBB+ credit rating or a change? If it supports a change, what should the benchmark credit rating be?

For the nine businesses which continued to operate as separately identifiable entities during the period 2013 to 2017, the median credit rating ranged from BBB to BBB+. For the four years 2014 to 2017, the median rating was BBB+.

Four of the nine businesses which continued to operate had A- ratings for one or more years during the period. However, only one of the four, ETSA Utilities, had that rating in each year from 2013 to 2017. ATCO Gas Australia was rated A- for each year from 2013 to 2016 but, in 2017, was rated BBB+. SGSP Australia Assets (Jemena) was rated A- in 2016 and 2017, but prior to that was rated BBB+, and United Energy was rated A- in 2017 but had previously been rated BBB. Whether these changes, for ATCO Gas, SGSP Australia Assets and United Energy persist, or whether they are aberrations and the companies concerned will revert to their earlier ratings, remains to be seen.

In APGA's view, the credit ratings of individual electricity network and gas pipeline businesses remain stable. The evidence supports continued use of BBB+ as the benchmark credit rating. We do not see the evidence as supporting the use of an A- rating.

The AER asks:

How should we implement the benchmark credit rating? In particular, what do you consider is the appropriate broad-curve rating to use?

The benchmark credit rating may be BBB+, but the evidence indicates a majority of ratings in the range BBB to BBB+. Yield curves for BBB+ rated entities are not available for credit spread estimation. Credit spread estimation should, therefore, continue to use the yield curves which are available for broad-BBB.

Section 9 of the discussion paper raises the possibility of combining the credit spreads obtained assuming a broad-BBB rating with the spreads obtained assuming a broad-A rating. A weighting of 2/3 broad-BBB and 1/3 broad-A is suggested. In APGA's view, the ratings evidence does not support this proposed use of a broad-A rating.

Yield curves

Since publication of its current *Rate of Return Guideline* in December 2013, the AER has obtained credit spreads from yield curve data published by the Reserve Bank of Australia (RBA) and by the Bloomberg service (BVAL). A simple average of these spreads has been used in rate of return on debt estimation.

A question now arises as to whether the yield curves produced by Thomson Reuters and Standard & Poor's (S&P) should be used to supplement the RBA and Bloomberg curves.

The AER asks:

What are your views on the relevance of market expertise of the above providers (RBA, Bloomberg, Thomson Reuters, S&P) with respect to estimating corporate debt yield curves for our purposes?

APGA has no reason to question the market expertise of any of the four providers of yield curves.

In respect of the curves published by these four providers, the AER asks:

Having regard to the available evidence, are any of the curves clearly superior to the other curves in terms of their overall fitness for purpose?

How should we have regard to curve outcomes over time when deciding on the curves to use in our benchmark?

APGA is of the view that, in terms of their overall fitness for purpose, the RBA and BVAL curves are superior. Their construction has been subject to independent scrutiny, and service providers have gained experience in using them to estimate regulatory rates of return on debt.

The RBA and BVAL curves have been assessed by the AER's expert advisor, Dr Martin Lally, and by the ACCC Regulatory Economic Unit. We would not necessarily place the same weights that they have on their findings, but we acknowledge that Dr Lally and the Regulatory Economic Unit carried out comprehensive assessments of the RBA and BVAL curves.

The AER notes, on page 25 of the discussion paper, that during the period from 2013 to 2017:

- the RBA curve exceeded the BVAL curve by 97 basis points; and
- the BVAL curve exceeded the RBA curve by 40 basis points.

We would expect to see these variations given the different bond samples used in curve estimation and the use of different statistical methods.

We would not expect to see credit spreads materially and consistently lower or higher, over an extended period, than those obtained using the RBA and BVAL curves. And yet, the discussion paper's Figure 1 indicates a persistent lowering of credits spreads when those spreads are estimated for the period of 12 months to January 2018 to using the Thomson Reuters and S&P curves, in addition to the RBA and BVAL curves.

On page 26, the discussion paper advises that credit spreads from the Thomson Reuters curve have been, on average, approximately 17 basis points higher than the spreads estimated from the RBA and BVAL curves. The spreads from the S&P curve have, however, been materially and consistently lower than the spreads estimated using the AER's current approach for the period for which the S&P curve has been reported.[1]

APGA is of the view that the AER should give consideration to additional data sources where those sources are fit for purpose. Furthermore, we are aware that, in April 2017, the ACCC Regulatory Economic Unit made (with the assistance of Thomson Reuters) an assessment of the Thomson Reuters curve, and did not find major problems with the curve. However, the advice in the discussion paper does not give us confidence that the Thomson Reuters and S&P curves are fit for purpose.

APGA does not see use of the Thomson Reuters and S&P curves being justified by any potential that may have for reducing the "shock" if another provider ceases publication of its curve. If the Thomson Reuters and S&P curves are not fit for purpose, they should not be used.

APGA is of the view that, at the present time, the potential curve mix remains: RBA and BVAL.

Each of the RBA and BVAL curves provides estimates of credit spreads derived from actual debt issues. Those issues are unlikely to have a term of 10 years or, indeed, any other specified term, and some adjustment may be required to match the term of debt for which an estimate of rate of return is made with the assumed benchmark term. In these circumstances, interpolation or extrapolation may be required to match the term for the estimate with the benchmark term. Certainly, this interpolation or extrapolation has been necessary when using the RBA curve, and has been carried out using a method based on advice which Dr Lally provided to the AER.

The discussion paper asks:

How should we consider the impact of adjustments to curves away from their published form when deciding on the curves to use in our benchmark?

Adjustment of the yield curves away from their published forms may be necessary, and that adjustment can, in APGA's view, continue to use the method of linear extrapolation proposed by Dr Lally. We note that linear extrapolation is reasonable only where the range over which it is to be carried out is small.

The AER asks:

How should we consider the impact of curve availability over time when deciding on the curves to use in our benchmark?

Of the four yield curves considered in the discussion paper, only one, the RBA curve, provides a long history of yields. The BVAL curve has been available only from April 2015.

[1] AER, *Discussion paper: Estimating the allowed return on debt*, May 2018: page 25.

APGA agrees that a long series allows better informed conclusions about curve performance. This is a further reason for not adopting either the Thomson Reuters curve, or the S&P curve, each of which has been available continuously for only a relatively short period.

We note that, although the Thomson Reuters curve has been available for estimation of yields on bonds with terms of 10 years, and with broad-BBB ratings, since July 2015, it has not been available continuously.[2] The intermittent availability of the curve is a further reason for not using it to estimate regulatory returns on debt.

Actual cost of debt data

From its analysis of service provider debt data undertaken for the AER, Chairmont has reported that:

- service provider costs of debt, which Chairmont has combined into, and reported as, an Energy Infrastructure Credit Spread Index (EICSI), have been considerably less volatile (over the period 2014 to 2017) than the market spread indexes (RBA and BVAL) which the AER uses to calculate its cost of debt allowance;
- this stability can be largely explained by variations in the terms of debt issued by the service providers: when credit spreads have been high, service providers have issued shorter term debt; when spreads have been low, they have issued longer term debt; and
- in consequence, the EICSI has been consistently lower than the market (RBA and BVAL) spreads for 10 year BBB debt which have been used by the AER to estimate regulatory rates of return: the difference has varied significantly from 19 to 136 basis points.[3]

The diagram below is a reproduction of Figure 2 from the discussion paper, which is, in turn, a reproduction of Graph 3 in Chairmont's report to the AER.

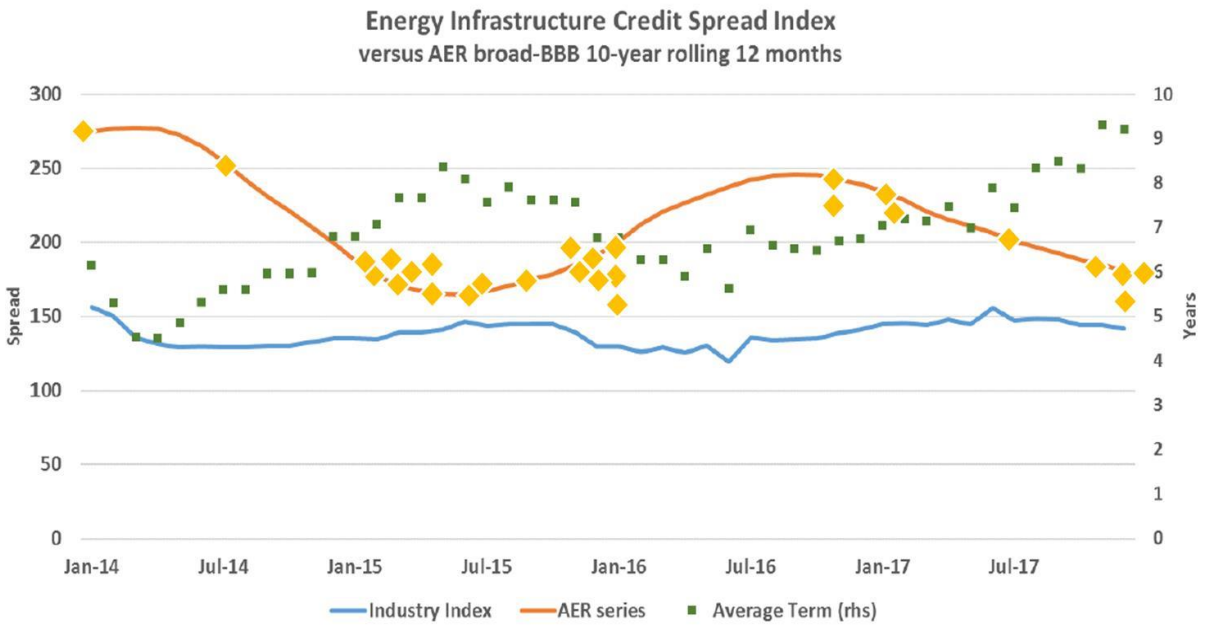
Figure 2 is, essentially, the basis for Chairmont's findings.

APGA has added some new information to Figure 2 which, we think, provides some explanation for the results it shows.

2 AER, *Discussion paper: Estimating the allowed return on debt*, May 2018: Table 5, page 24.

3 Chairmont, *Aggregation of Return on Debt Data*, 28 April 2018, page 3.

Figure 2 The current AER approach compared against EICSI[39]



Clearly, the Industry Index, which is the plot of the EICSI, lies below the rolling average of spreads on broad-BBB debt with a term of 10 years (designated "AER series") and, compared to the AER series, the EISCI is relatively stable. The average term of the debt issued by service providers appears to rise when spreads (as measured by the AER series) fall, and fall when spreads fall.

APGA has added a series of diamonds to the discussion paper's Figure 2. Each diamond represents an averaging period for the cost of debt concomitant with a Final Decision.

The diamonds in our reproduction of Figure 2 are clustered in the period January 2015 to January 2016. They cluster during a period when the rolling 12 months average of the broad-BBB 10 years credit spread has dropped to its (local) minimum level. The rates of return which the AER has allowed in its regulatory decisions have, therefore, been at their (local) minimum levels. To ensure that their costs of borrowing remain aligned with the regulatory allowances (which may continue to go down, or which will only rise slowly because of the way current rates of return on debt are incorporated in the transition to a trailing average estimate), service providers have responded by borrowing at lower rates. Those lower rates are available on shorter term debt.

In consequence, the average term of service provider debt, which appears to have been rising since April 2014, begins to decline. The decline commences around June 2015, and continues into 2016. This decline in the average term of debt issued by the service providers is halted only when the rates represented by the AER series trend upwards and, during the period January 2016 to June 2016, those higher rates are used in the first updating of debt returns in the decisions from January 2015 to June 2015.

The use of shorter term debt in managing against the regulatory allowance appears to have the effects of lowering the observed cost of debt as measured by the EICSI, and imparting stability to that observed cost, at least over the relatively short period in respect of which the AER sourced debt data from regulated service providers. APGA believes this is a temporary consequence of the transition to the trailing average (where the first year of the period is "over weighted") rather than a permanent feature.

APGA is concerned by the prospect of an immediate response, by the AER, to this apparent behaviour. The AER's decision to transition into a 10 years trailing average estimate of the return on debt, based on an assumed term at issuance of 10 years, was made in 2013. It has been applied in decisions on the access arrangements for gas transmission pipelines, including those for the Roma to Brisbane Pipeline and the Victorian Transmission System, as late as November 2017. The AER's decision was a decision calling for long term response by APGA members. They are now in the process of adapting to, and gaining experience with, the current approach to regulatory estimation of the return on debt.

The AER itself has recognised that many of the electricity network and gas pipeline businesses in its sample have had only one or two years under the current approach, and that this may be too limited a time series on which to base conclusions about longer term practices in response to the trailing average return on debt approach.[4]

In addition, there may be issues with Chairmont's use of the data sourced by the AER which may call into question one or more of the findings noted above. The average term of debt may be reduced by the temporary financing of the recently priviatized electricity network service providers in New South Wales. As those service providers put into place new long term financing arrangements, both the average term and the costs of debt as measured by the EICSI can be expected to rise. Also, the EICSI may be depressed by the inclusion of short term debt with multiple roll-overs during a year, effectively giving greater weight to the lower credit spreads on that debt.

APGA would support the AER working with stakeholders to develop a better understanding of the data and its implications. APGA believes that the rate of return guidelines should have an empirical basis, and accepts that, when empirical evidence sends a clear signal that change is required, this should be taken into consideration. We are unsure, at this juncture, whether the empirical signal is sufficiently clear, and would welcome further clarity.

Benchmark term

Relying on the debt data for the period 2013 to 2017 which has been sourced from service providers, the AER reports, in the discussion paper:

- an average term to maturity, when terms are weighted by size of issuance, of 7.4 years; and
- an average term to maturity, unweighted by size of issuance, of 7.5 years.[5]

The AER asks:

In your view, does this evidence support a change to the current benchmark term of debt being 10 years?

In APGA's view, the evidence does not support a change to the current benchmark term of 10 years.

The evidence currently available is for the early part of relatively long transition period. It may be biased by particular events during that period (for example, by the recent New South Wales privatisations noted above), and there are questions still to be answered about the way in which relevant data have been used.

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4 AER, *Discussion paper: Estimating the allowed return on debt*, May 2018: page 33.

5 AER, *Discussion paper: Estimating the allowed return on debt*, May 2018: Table 6, page 31.

No change to the current benchmark term at issuance should be contemplated until every regulated business has completed the transition to a return on debt which is estimated as a 10 years trailing average assuming debt with a term of 10 years.

3. SUMMARY AND CONCLUSIONS

Question 1

The evidence supports continued use of BBB+ as the benchmark credit rating; it does not support any use of an A- rating.

Question 2

APGA has no reason to question the market expertise of any of the four providers of yield curves.

Question 3

In terms of their overall fitness for purpose, the RBA and BVAL curves are superior. Their construction has been subject to independent scrutiny, and service providers have gained experience in using them to estimate regulatory rates of return on debt.

Question 4

Adjustment of the yield curves away from their published forms may be necessary, and that adjustment can continue to use the method of linear extrapolation proposed by Dr Lally. Linear extrapolation is, however, reasonable only where the range over which it is to be carried out is small.

Question 5

A long series allows better informed conclusions about curve performance. This is a further reason for not adopting either the Thomson Reuters curve, or the S&P curve, each of which has been available continuously for only a relatively short period.

Question 6

Interpolation or extrapolation may be required to match the term for the estimate with the benchmark term. Certainly, this interpolation or extrapolation has been necessary when using the RBA curve, and has been carried out using a method based on advice which Dr Lally provided to the AER.

Question 7

The evidence does not support a change to the current benchmark term of 10 years.

Question 8

Credit spread estimation should continue to use the yield curves which are available for broad-BBB.