ADVICE TO THE AER ON THE REGULATORY TREATMENT OF INFLATION

REPONSE TO THE DRAFT POSITION PAPER ON THE REGULATORY TREATMENT OF INFLATION

6 NOVEMBER 2020

Executive summary

In October 2020, the Australian Energy Regulator (AER) released its draft position paper on the regulatory treatment of inflation. The most significant reform proposed by the AER relates to its methodology for estimating inflationary expectations. The draft position paper does not provide a clear explanation of the AER's reasons for proposing to amend its estimation methodology.

The CRG advises the AER that its proposed approach may lead to consumer detriment and undermine the integrity of the regulatory framework.

The message from consumer representatives interviewed by the CRG is clear.

Consumers resent being expected to accept regulatory imprecision when it favours networks at the expense of consumers, yet endure regulatory tinkering to 'correct' imprecision when it favours consumers.

Summary of the CRG's advice to the AER

Current economic conditions do not constitute a need for the AER to pre-emptively alter its method for estimating expected inflation. [chapter 3]

The AER should dismiss the networks' claim that the AER's proposed methodology should be adopted immediately because it better reflects market-based estimates of inflation. [section 4.2]

The draft position paper observes the AER's current methodology for estimating expected inflation is unbiased, therefore, the AER needs to explain how changing its approach achieves the "best estimate" of expected inflation. [section 4.3]

The "best estimates" of expected inflation can only be determined by having regard to consistent assumptions across all relevant parameters in the rate of return instrument. [section 4.4]

Consumers will be disadvantaged if the AER adopts 5-year estimate of inflationary expectations while retaining a 10-year outlook for the rate of return. [section 5.2]

The AER needs to explain how it will reflect reduced regulatory risk in networks' revenue allowances if it changes its methodology for estimating expected inflation. [Section 5.3]

The AER will undo the technical coherence and integrity of the regulatory revenue model if it proceeds with its proposal to adopting a 5-year estimation period for expected inflation while retaining a 10-year outlook for the rate of return. [section 5.4]

The AER should postpone its final decision on how it estimates inflationary expectations so it can be considered as part of its review of the rate of return instrument. [section 5.5 & 6.3]

Before making a final decision, the AER must model and consult on framework features such as the length of the estimation period, alternative glide paths, and possible transition options. [section 6.6 & chapter 7]

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1 Introduction

In October 2020, the Australian Energy Regulator (AER) released its draft position paper on the regulatory treatment of inflation.[1] The AER's most significant proposed reform relates to its methodology for estimating inflationary expectations.

While this may be one of the most obscure features of the regulatory framework, it is also one of the most important because it has inter-temporal redistributive consequences for consumers. Changing to a methodology that produces lower estimates of expected inflation than the current approach will mean higher prices for today's customers than would have otherwise been the case. This will be the effect of the AER's proposal in the years immediately ahead.

The AER's proposed methodology, which it claims is likely to result in the best estimate of expected inflation, features the following elements.

- The AER proposes:
    - shortening the estimation horizon for expected inflation from ten years to a term that matches the length of the regulatory period (5 years); and
    - applying a linear glide-path from the RBA's forecasts of inflation for years 1 and 2 to the mid-point of the RBA's inflation target band (2.5 per cent) in year 5.
- The AER rejects two features proposed by the networks:
    - the framework changes proposed by the networks, namely, to target either a nominal or hybrid or rate of return; and
    - the market based estimates of expected inflation proposed by the networks

The CRG agrees with the AER's proposed rejection of the framework changes and the market based estimates.

However, as detailed in this submission, the CRG considers that the AER's proposed amendments to the current methodology are not justified and, in any case, should not be introduced independently of the review of the rate of return Instrument.

The draft position paper does not provide a clear explanation of the AER's reasons for proposing to amend its estimation methodology. The CRG is concerned the AER's proposed approach may lead to consumer detriment and undermine the integrity of the regulatory framework.

In anticipation of this type of outcome, the CRG advised the AER in September of the types of analysis that would be needed to give consumers confidence in any proposed changes to the regulatory framework.[2] The AER elected not to undertake this analysis.[3] The CRG maintains full transparency and properly informed consumer consultation is necessary if the AER wishes to engender consumer confidence in its proposed changes.

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[1] AER draft position paper (October 2020)

[2] CRG letter to AER Board (1 September 2020)

[3] Instead, it responded, *"The framework the CRG uses to assess options of producing the best estimates of expected inflation is a matter for the CRG."* (AER draft position paper, p.33)

This submission provides the CRG's advice in response to the AER's draft position paper as follows:

- Chapter 2 describes the CRG's advisory role.
- Chapter 3 considers the context in which this review is taking place.
- Chapter 4 reflects on the AER's obligation to determine the "best estimates" of expected inflation.
- Chapter 5 highlights the detriment and damage the AER will cause if it proceeds with its proposal to move to a 5-year estimation methodology.
- Chapter 6 responds to design features proposed in the draft position paper.
- Chapter 7 reports consumer representatives' response to the draft position paper.
- Chapter 8 concludes the submission by questioning whether the AER's proposed 'tweaks' to the regulatory model are consistent with its objectives and responsibilities.

2 CRG: Who we are. What we stand for.

In June 2020, the AER appointed the Consumer Reference Group (CRG).[4] The CRG's role is set out in the National Electricity Law (NEL) and National Gas Law (NGL) which state the CRG may:[5]

- Consult with consumers of electricity and gas; and
- Facilitate consumer engagement in the process for making the instrument; and
- Make written submissions to the AER about the content and the process for making the rate of return instrument.

The CRG's status suggests it is not just another AER stakeholder. Nor is it a competitor with, or substitute for, consumer advocates or for Energy Consumers Australia.

The CRG recognises the AER must exercise its judgement according to the law, however, the CRG considers its advice on particular matters has implicit value. In particular, when the CRG's advice indicates the sort of analysis required to give consumers confidence in regulatory outcomes, the AER should accept that a decision *not* to follow this advice harms consumer confidence in the regulatory process.

Since May 2020, the CRG has responded to each of the papers released by the AER by making submissions and presenting at public forums.

The CRG has adopted five principles to guide its advice to the AER.[6] They are:

- *Principle 1 – A regulatory framework serving the long-term interests of consumers must promote behaviours that engender consumer confidence in the framework.*
- *Principle 2 – Any change to the regulatory model must be tested against detrimental consumer impacts in relation to absolute prices and price changes.*
- *Principle 3 – Any change to the regulatory model must be tested against acceptable consumer impacts in relation to service standards.*
- *Principle 4 – Risks should be borne by the party best placed to manage them.*
- *Principle 5 – There should be a high bar for change.*

[4] For more information on the CRG and its members see: CRG fact sheet (September 2020)

[5] NEL, Part 3, Div 1B, Sub Div 3, clause 18N(2); NGL, Chapt2, Part 1, Div1A, SubDiv3, rule 30I

[6] CRG submission to AER – Return on Equity (9 October 2020), p.21

3 This review is different, but not that different.

This is the first time the regulatory framework has been reviewed by the AER during a recession in Australia. While this is historically significant, there should be no rush to assume it is significant from a regulatory perspective. The regulatory model was developed to 'look through' the peaks and troughs of the business cycle. Its timeframes seek to reflect the life cycle of investment in long-lived assets and in the long-term interests of consumers (as required by the NEO/NGO). It was designed to avoid the regulator being swayed by potentially short-term economic circumstances during individual regulatory control periods.

Investors bought into networks fully cognisant the framework would not compensate or penalise them for day-to-day, year-to-year or period-to-period volatility in economic circumstances. Their risk adjusted returns and a clear regulatory statement of intention that parameter estimates are unbiased should be sufficient to allow investors to weather any such volatility. If circumstances have so fundamentally changed that this no longer holds – and the CRG notes neither evidence nor reasoning has been provided to support such a claim– then individual 'tweaks' to the regulatory model are not an appropriate response. Rather, a thorough review of the framework would be required to ensure the benefits of any reforms were shared equitably with consumers.

The framework's original designers understood regulatory estimates of costs, demand and inflation would not be perfect in all the circumstances, but they accepted imperfect regulatory estimates in one period would be offset by future over- or underestimates. That is, the regulatory framework was designed to be free of systemic biases.

Neither the AER nor the networks have demonstrated the AER's current estimates of inflationary expectations are captive to a systemic bias. Indeed, the AER maintains its estimates of expected inflation are unbiased.

> "*Over the longer-term our current approach will result in unbiased and correct outcomes because in the long-run we consider expected inflation remains anchored to the mid-point of the RBA target band*." (p.47)

The CRG is concerned by the AER's proposal to alter its methodology for estimating inflationary expectations in response to current economic conditions. Such a move would be at odds with the framework's underpinning philosophy and the NEO/NGO's focus on long-term outcomes. The CRG's submission addressing the return on equity describes the problems of regulatory 'short-termism' and overreaction to current events.[7]

<u>CRG advice</u>: Current economic conditions do not constitute a need for the AER to pre-emptively alter its method for estimating expected inflation.

[7] CRG submission to AER – Return on Equity (9 October 2020)

4 The AER must use the "best estimates' of expected inflation

4.1 Context: Rule requirements

The National Electricity Rules (NER) and National Gas Rules (NGR) outline the contents of the AER's post-tax revenue model (PTRM). This includes a requirement that the PTRM:[8]

> "*must include … a method that the AER determines is likely to result in the best estimates of expected inflation*."

The rules do not define or provide guidance addressing the term "best estimates". This task is left entirely to the AER.

4.2 How the networks interpret 'best estimates'

In their presentations to the public forum hosted by the AER on 21 October 2020, the network peak bodies argued the AER's current approach does not produce the best estimates of expected inflation. Both organisations presented data in support of their claims.

Slide 7 from Energy Networks Australia (ENA), compared the AER's proposed approach with market expectations of inflation. The ENA used breakeven and swaps data to derive its estimates of market expectations. The ENA argued its analysis shows the AER's proposed approach produces results that are *"more in line with market expectations"* than the AER's current approach.[9] On this basis, the ENA concluded:[10]

> *"The new approach produces the best estimate of expected inflation that best promotes the NEO/NGO."*

The Australian Pipelines and Gas Association presentation reached a similar conclusion. Both organisations argued the AER is therefore obliged to implement its proposed approach immediately and without a transition. The AER must reject these arguments.

In section 11.3 of its draft position paper, the AER finds market-based estimates are prone to material and time-varying biases. This finding makes alignment between the proposed approach and market-based estimates an irrelevant consideration when assessing the best estimates of expected inflation. If market based estimates contain unreliable biases, then they self-evidently do not provide an appropriate benchmark for assessing alternative methodologies.

CRG advice: The AER should dismiss the networks' claim that the AER's proposed methodology should be adopted immediately because it better reflects market-based estimates of inflation.

[8] NER: clauses 6.4.2(b)(1) and 6A.5.3(b)(1); and NGR: rule 75B

[9] ENA presentation (21 October 2020), slide 8, also notes, "it is still likely to overstate inflation."

[10] ENA presentation, slide 12

4.3 How the AER interprets 'best estimates'

The AER explains in its draft position paper:

> *"[T]he term 'best estimate' is intended to require the inflation estimate to be an unbiased estimate of expected inflation. Unbiased in this context means the estimate should reflect expected inflation only and should not reflect any risk premiums or other factors that would cause the estimate to not equal expected inflation."* (p.67)

This statement clearly equates the definition of "best" with the absence of bias.

When discussing its current 10-year estimation methodology, the draft position paper concludes:

> *"Over the longer-term our current approach will result in unbiased and correct outcomes because in the long-run we consider expected inflation remains anchored to the mid-point of the RBA target band. As a result, on average in the long-run, and for all future regulatory periods, there is no expected mismatch."* (p.47)

In other words, the AER finds its current approach for estimating expected inflation is unbiased.

It is therefore not clear why the AER is proposing to change its estimation methodology. The only explanation appears to be provided in the context of its proposal to introduce a glide path. It explains:

> *"[T]here is evidence that the transition back to the mid-point of the RBA's target band may take longer than previously."* (p.57)
>
> *"On the basis of this evidence we are proposing to introduce a glide-path approach to provide the best estimate of expected inflation."* (p.57)

These statements appear to suggest the glide path, and potentially the entire proposal to change the estimation methodology, is motivated by an immediate short-term concern rather than an ongoing bias in the AER's current estimation of expected inflation.

<u>CRG advice</u>: The draft position paper observes the AER's current methodology for estimating expected inflation is unbiased, therefore, the AER needs to explain how changing its approach achieves the "best estimate" of expected inflation.

4.4 How the CRG interprets 'best estimates'

The CRG interprets the NER/NGR's silence on the meaning of 'best estimates' to reflect this is a matter to be resolved within the context of the broader regulatory task assigned to the AER. That broader context is established by the NEO and NGO and their exclusive objective of promoting the long-term interests of consumers.

As discussed in chapter 3 of this submission, this focus on the long-term requires the AER to 'look through' the business cycle and the effects it may have in the short-term. Short-term volatility in cash returns is a risk left to be shared between consumers and investors over multiple regulatory cycles.

While the AER's use of Google as an example was poorly framed, a comparison with Google can still provide important insights.[11] It highlights the special protection afforded to networks through the provision, and indexation, of a regulated asset base. Networks also benefit from guaranteed revenues reflecting efficient costs and the opportunity to pass through certain unforeseen costs to consumers. Networks may become further protected from extreme downside risk if the regulator adopts a financeability (or cashflow) test. Such a mechanism would provide networks with a unique safety net, including from the risk of the AER over-estimating inflationary expectations. Neither Google nor any other firm in a competitive market is so privileged.

The AER should not be unnerved by networks' claims about what rating agencies might do or warnings of a capital strike. No evidence has been provided in support of these assertions.

The AER's determination of the best estimates of expected inflation must be determined on long-term considerations and cannot be made having regard to short-term volatility in returns to equity. As noted in the previous chapter, short-term volatility is an irrelevant consideration. Neither the energy Laws nor Rules provide any explicit or implicit guarantees on short-term returns to equity.

The NER and NGR provides a broad discretion to the AER for deciding how various parameters will be determined, including how it determines the "best estimates" of expected inflation. This approach allows the AER to consider all its estimation methodologies in their totality. Put simply, it assumes the AER will adopt a consistent approach across all its estimation methodologies. These methodologies, individually and collectively, must be consistent with NEO/NGO's focus on the long-term.

CRG advice: The "best estimates" of expected inflation can only be determined by having regard to consistent assumptions across all relevant parameters in the rate of return instrument.

[11] AER draft position paper, p.88

5 The proposed approach will harm consumers and undermine the framework's integrity

5.1 Context

The two main features of the AER's proposed approach to estimating expected inflation are:

(i) Moving from a 10-year to 5-year outlook period; and

(ii) Using a glide path to estimate values in years 3 and 4.

The AER proposes to continue using RBA forecasts of inflation in years 1 and 2, and the mid-point of the RBA's target band in year 5.

This chapter describes the consequences of moving from a 10-year to 5-year outlook period when estimating expected inflation while leaving unchanged the 10-year estimation period for the rate of return. Three causes of harm are identified. Chapter 6 responds to specific findings and proposals in the AER's draft position paper.

5.2 Consumers will lose twice through disjointed regulatory decision making

Although the AER's draft position paper considers delaying the start date of the proposed methodology, it does not appear to contemplate delaying the decision in its entirety.

If the AER were to proceed with its proposal, it would create a 'blended' model. Expected inflation would be estimated using a 5-year estimation period, while the rate of return would still be determined using a 10-year outlook (based on 10-year bond rates), at least until the conclusion of the review of the rate of return instrument in 2022. Under this scenario, consumers will incur the worst of all worlds, at least in the near term.

Consumers will lose out because 10-year nominal bond rates will almost always be higher than 5-year bond rates, while in the immediate future, switching to a five year inflation estimate, will produce lower estimates of inflation than the 10-year approach.[12] Higher estimates of nominal bond rates coupled with lower estimates of expected inflation means a higher a real rate of return, and higher prices for consumers in the immediate term.

<u>CRG advice</u>: Consumers will be disadvantaged if the AER adopts a 5-year estimate of inflationary expectations while retaining a 10-year outlook for the rate of return.

5.3 Consumers could lose again through the mispricing of regulatory risk

The Revenue and Pricing Principles set out in section 7A of the NEL (with equivalent principles in section 24 of the NGL) require:

> *A price or charge for the provision of a direct control network service should allow for a* ***return commensurate with the regulatory*** *and commercial* ***risks*** *involved in providing the direct control network service to which that price or charge relates.* (cl.5) [emphasis added]

[12] Nominal bond rates include investors' expectations of inflation (along with other premia).

The AER explains its reason for making the proposed change as:

> "*On balance, we consider that an inflation term tied to the length of the regulatory period is likely to achieve the NEO/NGO to the greatest degree*." (p.46)

The CRG interprets the AER's reference to "the greatest degree" as indicating it is seeking to reduce the risk of regulatory error – presumably by reducing either bias or variance (or both) in its estimates of expected inflation.

As noted above in section 4.3, the AER considers its current approach is already unbiased. Therefore, in seeking to better achieve the NEO/NGO by adopting its proposed approach, the AER must be seeking to reduce variance in its estimates.

In financial analysis, variance is a measure of risk. If the AER's proposed methodology is aimed at reducing variance in regulatory estimates, then it follows that the AER is seeking to reduce regulatory risk. The Revenue and Pricing Principles would then oblige the AER to reflect this reduction in regulatory risk in networks' revenue allowances. The draft position paper is silent on how the AER proposes to do this.

The CRG has not considered how the AER should reflect reduced regulatory risk when determining networks' revenue allowances. Presumably, it will need to be addressed as part of the rate of return instrument. Separating the two decisions increases the likelihood this matter will 'fall through the cracks', to consumers' detriment.

<u>CRG advice</u>: The AER needs to explain how it will reflect reduced regulatory risk in networks' revenue allowances if it changes its methodology for estimating expected inflation.

5.4 Consumers will lose again if the framework lacks conceptual integrity

Adopting a 5-year estimation period for inflationary expectations, while retaining a 10-year outlook for calculating the rate of return, would represent a logically inconsistent set of assumptions by the AER. This would undermine the integrity of the framework and consumers' confidence in it.

The AER's approach to the rate of return – both debt and equity – adopts a 10-year outlook relying on 10-year nominal bond rates. These nominal bond rates have inflationary expectations built into them. The use of 10-year bond rates means those inflationary expectations span the entire 10-year outlook embedded in the bond. This was explicitly acknowledged in the AER's discussion paper on the regulatory treatment of inflation.[13]

> *"[W]hile debt contracts may fix the nominal cost of debt, this cost incorporates investor expectations of inflation over the next 10 years. The term in these inflation expectations is what we want to match."* (p.30)

The AER is now proposing a methodology that does not meet its own objective, thereby undermining the framework's integrity.

Blending 10-year nominal bond rates with 5-year estimates of expected inflation implies the AER is assuming the geometric mean of inflationary expectations embedded in years 6 to 10

[13] AER discussion paper (May 2020)

of the nominal bond rate is equal to the geometric mean of inflationary expectations in years 1 to 5. This implied assumption is inconsistent with the AER's explicit assumption that inflationary expectations will converge back to the RBA's mid-point by year 5. This inconsistency is demonstrated mathematically in **Appendix A**.

These two assumptions cannot coexist and would represent a structural flaw in the regulatory model if they were jointly adopted by the AER.

CRG advice: The AER will undo the technical coherence and integrity of the regulatory revenue model if it proceeds with its proposal to adopting a 5-year estimation period for expected inflation while retaining a 10-year outlook for the rate of return.

5.5 Conclusion: Expected inflation and the RoR must be considered together

For the reasons described in this chapter as well as in chapter 4, the AER cannot make a decision on its methodology for estimating inflationary expectations ahead of its consideration of the rate of return instrument (RoR). These are completely interwoven elements of the regulatory framework.

The CRG is also concerned a pre-emptive decision on estimating inflationary expectations, may prejudice the AER's later decisions regarding the rate of return instrument. Separated decision-making also provides networks with even greater opportunity to 'cherry pick' the regulatory model.

Failure to deal with these matters holistically, is likely to disadvantage consumers.

CRG advice: The AER should postpone its final decision on how it estimates inflationary expectations so it can be considered as part of its review of the rate of return instrument.

The need for holistic consideration of any changes to the term of the inflation estimate is further discussed in sections 6.3 (regulatory period alignment) and 6.4 (glide path).

6 CRG response to other elements in the draft position paper

6.1 Context

At the end of chapter 5, the CRG concludes the AER must postpone its decision on the estimation methodology for inflationary expectations. This chapter turns to specific findings and proposals discussed in the AER's draft position paper. The following comments are provided without prejudice – given the conclusion reached in the previous chapter.

6.2 Uncontested matter

Delivering the expected real rate of return

The CRG welcomes the AER's confirmation of Sapere's analysis showing the regulatory framework delivers a real rate of return as intended under the framework.[14]

Maintaining a real rate of return framework

The real rate of return approach for calculating revenue allowances has been in operation from the outset of network regulation. Investors bought into the networks knowing this was how revenues would be determined. There is simply no argument for change – now, or with respect to any future investments.

The CRG supports the AER's rejection of the networks' proposal for a hybrid model but is alarmed by a statement in section 16.6 which appears to invite support for a nominal rate of return model.

> *"At this time we consider that a change to a nominal approach may be more appropriate than a change to a hybrid approach."* (p.82)

Switching to a nominal rate of return model would significantly increase consumer prices by pulling forward network returns that would otherwise be earned in future years.[15] The AER must clarify what it means by this statement.

Market-based approaches to estimating inflationary expectations

It is disappointing to see networks pursuing the re-introduction of market-based estimates after having advocated for their removal in 2007 and 2008.

For the reasons explained in its initial submission, the CRG supports the AER's decision to reject unreliable market-based approaches for estimating inflationary expectations.

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[14] Sapere (2020) *Target return and inflation - Input to the AER Inflation Review 2020*

[15] This effect is demonstrated In the AER fact sheet: *Why do we index the regulatory asset base?*

Reliance on the RBA's inflation forecasts and targets

The CRG agrees with the AER's findings that:

1. The RBA's forecasts for inflation for years one and two of a regulatory period provide an appropriate estimate of inflationary expectations in those years.
2. The mid-point of the RBA target range provides an appropriate anchor for estimates of expected inflation from year 5 of a regulatory period.[16]

6.3 Alignment with the regulatory period

In support of its argument for 'matching' the estimation period for expected inflation with the length of the regulatory period, the draft position paper states:

> *"Having regard to the advice from Dr Lally and submissions on our discussion paper, we have reached the view that an inflation term matching the regulatory period is likely to result in the best estimates of expected inflation."* (p.48)

This statement notably misrepresents Lally's advice to the AER.

Lally's concern is with the estimation term used to derive the nominal discount rate. He argues an "NPV=0 principle" implies it should match the length of the regulatory period, in which case the estimation period for expected inflation should also match the length of the regulatory period. [17] He then demonstrates that shifting to a shorter estimation period for expected inflation ahead of adopting a shorter term for the rate of return does not ameliorate his concerns.

> *"[U]sing the wrong expected inflation rate does not mitigate the WACC error."*

The AER is wrong to infer Lally supports its own conclusion that "an inflation term matching the regulatory period is likely to result in the best estimates of expected inflation." Lally's advice neither supports nor contradicts the AER's proposal.[18] He is addressing a different concern.

The draft position paper fails to explain why 'matching' has suddenly emerged as a concern after lying dormant for almost 20 years.

At this stage, the CRG has not formed a view about the merits of shifting to a 5-year time horizon for the rate return (as argued by Lally). Nonetheless, the CRG is firmly of the view there is no merit in shortening the time horizon for expected inflation ahead of considering the appropriate time horizon for the rate of return. This is consistent with the CRG's conclusion in section 5.5.

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[16] Even though the RBA may review its target range, this should not affect the AER's approach of anchoring long-term inflationary expectations on the RBA's target range.

[17] Lally (2020) *Review of the AER's inflation forecasting methodology,* p.9

[18] The statement in Lally's executive summary which appears to support the use of a 5-year estimation period for expected inflation must be read alongside section 2 of his paper. It's only there that he explains the "NPV=0 principle" requires alignment of the term of the discount rate (i.e. the nominal WACC) with the term of the regulatory period. The statement in Lally's executive summary can only be properly understood with this requirement in mind.

6.4 Adopting a glide path

Chapter 12 of the draft position paper proposes adopting a linear glide path for years 3 and 4 of a 5-year estimation period.

A remarkable reduction in the importance attached to the long-term

The proposal represents a marked realignment of the importance the AER attaches to estimates of long-term expectations of inflation.[19] Indeed, the weight attached to long-term estimates is slashed from 80 per cent to just 20 per cent, while the weight attached to short-term estimates is doubled from 20 to 40 per cent. The remaining 40 per cent represents the weight attached to a transition period between short- and long-term estimates, calculated using a linear glide path. This shift is summarised in the following table.

Table 6-1: Glide path weightings

	Features		Weight attached to:		
Description	**Estimation period**	**Glide path Years 3&4**	**Short-term estimates**	**Transitional estimates**	**Long-term estimates**
Current methodology	**10 yrs**	**No**	**20%**	**—**	**80%**
Proposed in draft position paper	**5 yrs**	**Yes**	**40%**	**40%**	**20%**
The middle road	**10 yrs**	**Yes**	**20%**	**20%**	**60%**

This sudden and extreme reduction in the emphasis placed on long-term considerations would represent a fundamental shift by the AER away from the requirements and expectations established by the NEO/NGO.

Symmetry won't be sustainable

The CRG agrees with the AER's statement:

> *"…a linear glide-path, applied symmetrically, should be applied on an enduring basis as it provides a robust method that can be used regardless of wide-reaching events or disturbances to market data."* (p.61)

This symmetry only manifests over the passage of time, spanning multiple business cycles and numerous regulatory periods. Consumers would be right to be wary about whether the methodology, having been 'tweaked' in 2020, won't be tweaked again in the future – and tweaked in a way that undoes the AER's commitment to symmetry made back in 2020.

In this regard, Lally's advice to the AER concludes with a telling observation.[20]

[19] Where short-term estimates reflect the RBA's forecasts for years 1 and 2, and long-term estimates reflect the mid-point of the RBA's target range.

[20] Lally (2020) *Review of the AER's inflation forecasting methodology*

> *"Lastly, and because reversion back to the RBA's Target is currently expected to be unusually slow, there is a case for the AER adopting a slow glide path from the RBA's forecasts to the Target providing that scenarios in which reversion back from a low figure is unusually slow (to the disadvantage of the businesses) are not likely to be matched by scenarios in which reversion back from a high figure is unusually slow (to the advantage of the businesses)."* (p.32)

In other words, because reversion to mean will probably be faster when inflation is above the mid-point of the RBA's target range, the glide path can be expected to over-estimate inflationary expectations at times of high inflation.[21]

It is perfectly foreseeable that networks will demand the AER abandon its glide path methodology when this scenario materialises. The more weight the AER attaches to estimates in a glide path, the greater the incentive networks will face to pursue its abandonment. If the AER proceeds with its proposed glide path now, then on what basis will a future AER Board resist networks' pleas for its abandonment?

The middle road?

The CRG considers the third row in the above table offers a defensible 'middle road'. It would retain the present 10-year estimation period but provide a glide path for years 3 and 4 as per the proposal in the AER's draft position paper.

The 'middle road' provides greater flex in the AER's estimates in response to short-term volatility without surrendering the framework's long term focus. Moreover, it would reduce network's incentive to pursue abandonment of the glide path in the future (because only 20 rather than 40 percent of estimates are determined by the glide path). Such an approach would also lessen the need for a transition period.

6.5 Timing and transition

In section 15.2 of its paper, the AER acknowledges delaying the introduction to its proposed changes or "smoothing its impact" may be fairer on consumers, while chapter 14 partially quantifies the impact of adopting the changes immediately.

> *"[O]ur draft Victorian distribution determinations would result in about an extra $300 million ($real 2021) in allowed revenue over the next five years, compared to … using the current method."* (p.67)[22]

Implementing the AER's proposed changes immediately, and in full, clearly benefits the networks at consumers' immediate expense. Implementing them in say, 3 or 4 or 5 years,

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[21] Downward reversion can be expected to be faster than upward reversion because the RBA has more tools at its disposal to lower inflation, and therefore inflationary expectations.

[22] In the hypothetical event all the networks were having their revenues reset at the same time at the Victorian electricity distributors, the additional revenue allowance would be much bigger. The total RAB of the five Victorian electricity distribution businesses is around $24 billion, while the total RAB of all the other regulated electricity, gas, distribution and transmission networks is around $108 billion. (Data taken from the AER's *State of the Energy Market 2020*, pages 120, 135 & 220)

when the trajectory of inflation returns to its long-term pattern, would have a more neutral impact on consumers. Under such circumstances, a transition path may not even be required.

Proceeding now with the AER's proposed methodology therefore demands a transition mechanism to attenuate the impact on consumers. This can be done without net cost to the networks by capitalising a proportion of the additional revenue realised by the AER's proposed methodology. For example, if the AER's proposed methodology delivers a network operator an additional $10 million per year compared to the current approach, then a transition mechanism might see $1 million allowed as cash revenue in the first year (with the remaining $9 million capitalised in the RAB), $2 million allowed as cash revenue in the second year (with $8 million capitalised), and so on.

6.6 Conclusion: Transparency. Transparency. Transparency.

As described in the next chapter (as well as in the CRG's other submissions to the AER), consumers are wary about the seemingly unending cycle of amendments to the regulatory framework. The current round of reviews is viewed with particular scepticism given the comprehensive reviews concluded only 2-3 years ago.

According to consumer representatives, this constant churning of the regulatory model is undermining confidence in investment decisions by end-users. This feedback from consumers should be central to the AER's deliberations. The NEO/NGO requires the regulator to promote the "efficient use" of energy by consumers. This includes enabling efficient investment decisions by businesses and households.

The CRG is concerned by these claims. They indicate the regulator's oversight of the regulatory framework is now a source of considerable uncertainty for consumers. This uncertainty is contrary to the principles of good regulatory policy, good economic policy, and good public policy. That is why the CRG has adopted a 'high bar for change' as one of its guiding principles (Chapter 2).

Neither the networks in their submission nor the AER in its draft position paper have cleared this high bar. Neither have provided sufficient data or analysis. The networks have not consulted their customers. The AER's reasoning has not engendered consumers' confidence in its judgement.

The need for greater transparency by the AER is a common concern among consumer representatives, as highlighted in the next chapter. The AER must model and consult on framework features such as the length of the estimation period, alternative glide paths and possible transition options.

CRG advice: Before making a final decision, the AER must model and consult on framework features such as the length of the estimation period, alternative glide paths, and possible transition options.

7 Consumer perspectives on the draft position paper

7.1 Context

Since June, CRG members have been meeting with targeted consumer representatives to gauge their responses to the matters raised in the AER's various consultation papers. The CRG's submission in response to the discussion paper on the regulatory treatment of inflation describes consumer representative's feedback at that stage.[23,24]

Following release of the draft position paper, the CRG sought to 'close the loop' on its previous discussions with consumer representatives. Members of the CRG followed up with all six representatives who were previously interviewed in relation to the AER's earlier discussion paper.

The CRG is planning to undertake broader and deeper consultation with consumers and their representatives in the new year.

7.2 Consumer representatives are concerned by the AER's proposal

The following is a summary of feedback from consumer representatives following release of the AER's draft position paper. More detail is provided in **Appendix B**.

General concerns

- Consumer representatives do not support continual revisiting of the framework.
- They view the AER as being too tolerant of networks seeking framework changes when they perceive themselves to be at a disadvantage (however temporary), whereas consumers do not have the capacity to seek changes when they are disadvantaged.
- Consumer representatives are concerned about a lack of evidence to indicate networks and consumers are treated fairly, with one advocate commenting the AER had never produced data in support of the "theory" that the regulatory framework treated networks and consumers evenly over the longer term. Consumer representatives also questioned whether consumers ever get to benefit from the alleged "swings and roundabouts" of regulation.
- Consumer representatives agreed the AER should adopt a "high bar" before it considers any changes to the regulatory framework.
- Some consumer representatives observed the AER is empowered to make decisions around the estimation of inflation, and too much consultation can erode consumers' trust and elicit negative reactions from consumers. They stated that trust is earned by making the right decisions.

[23] AER discussion paper *(*May 2020)

[24] CRG submission to AER (29 July 2020)

Specific responses

- Consumer representatives strongly prefer a 10-year estimation period for expected inflation.
- They also believe that the time horizon for inflationary expectations should be considered as part of the rate of return instrument review.
- Consumer representatives believe that moving to a 5-year estimate of expected inflation disrupts the overall regulatory cycle of "ups and downs" and doing so now will disadvantage consumers.
- Consumer representatives support the notion that if changes are to be made to the estimation methodology for expected inflation, then implementation should be postponed, or made subject to a transition period, to ameliorate the adverse impact on consumers.
- Consumer representatives are concerned about the lack of analysis by the AER into the impact on consumers of various options – including immediate implementation, postponement or any transition options.
- With only half supporting the proposal, consumer representatives are divided in their support for the glide path proposal.

7.3 Conclusion: Heads, the networks win. Tails, consumers lose.

The CRG interviewed a sample of highly experienced consumer representatives with deep knowledge of the AER's regulatory arrangements and who represent a diversity of consumer groups.

Their feedback is clear.

Consumers are asked to tolerate regulatory imprecision during periods when it favours networks, and then to tolerate regulatory tinkering when the same imprecision would have otherwise favoured consumers.

Their message is even clearer.

It should weigh heavily on the AER.

8 Conclusion: Avoiding the first step down a slippery slope

The CRG shares the concerns of the consumer organisations with whom it has consulted. Repeatedly tweaking the regulatory model undermines consumers' confidence in regulatory arrangements and introduces uncertainty into their investment decisions. This uncertainty is contrary to the requirements of the NEO/NGO which requires the AER to promote consumers' *efficient use* of energy and the energy system.

The draft position paper does not provide a clear statement of the AER's reasons for seeking to amend its estimation methodology. The AER must provide a clear explanation of how it interprets its obligation to determine the "best estimates" of expected inflation.

There may be considerable consumer detriment if the AER proceeds with its proposed amendment to the estimation of inflationary expectations ahead of its review of the rate of return instrument. Adopting a 5-year estimation period for expected inflation and a 10-year outlook for the rate of return will also severely damage the conceptual integrity of the regulatory framework, and consumers' confidence in it.

The regulatory treatment of inflation and the design of the rate of return instrument are intertwined features of the regulatory framework. They must be addressed simultaneously. In the meantime, a subset of the matters reviewed by the AER can be finalised.

Feedback from consumers confirms arcane arguments about modelling inflationary expectations have 'real world' consequences for their confidence in the regulatory framework.

The AER's draft position paper is an attempt to identify a pragmatic solution in response to a problem alleged by the networks. However, each pragmatic tweak begets the next, and the next, and the next – until the entire regulatory framework is riddled with clauses responding to the special pleadings of the best resourced stakeholders.

Regulatory tweaking is a slippery slope leading away from the long-term interests of consumers.

The CRG strongly cautions the AER Board against taking a step down this slippery slope.

Appendix A: The logical inconsistency of the AER's proposed method

The nominal rate of return in the AER's revenue allowance models derives from observed nominal 10-year bond rates. These observable bond rates inform estimates of both the nominal cost of debt and the nominal return on equity. For ease of exposition, the following analysis uses a 10-year nominal bond rate as a proxy for the nominal rate of return.

The nominal bond rate (B_t) represents a value where $B_t = 1.04$ equates to a 4 per cent nominal bond rate.

The ten year nominal bond rate equals the 10-year geometric mean of expected annual nominal bond rates (B_t^e) over the 10-year life of the bond.

$$Ten\ year\ nominal\ bond\ rate\ = \prod_{t=1}^{10} (B_t^e)^{1/10}$$

The ten year real bond rate is given by the 10-year geometric mean of expected annual real bond rates over the 10-year life of the bond, where expected real bond rates are determined by the **Fisher equation** – that is, the expected annual nominal bond rates (B_t^e) in each year divided by the expected rate of inflation (π_t^e) in each year (where $\pi_t = 1.02$ represents a 2 per cent expected inflation rate).

$$Ten\ year\ real\ bond\ rate\ = \prod_{t=1}^{10} (\frac{B_t^e}{\pi_t^e})^{1/10}$$

This can be rewritten as:

$$Ten\ year\ real\ bond\ rate\ = \frac{\prod_{t=1}^{10} (B_t^e)^{1/10}}{\prod_{t=1}^{10} (\pi_t^e)^{1/10}}$$

and the denominator can be rewritten as:

$$\prod_{t=1}^{10} (\pi_t^e)^{1/10} = \prod_{t=1}^{5} (\pi_t^e)^{1/10} \prod_{t=6}^{10} (\pi_t^e)^{1/10}$$

The **AER's proposed methodology** for estimating the applicable real rate of return involves taking the 10-year nominal rate of return and dividing it by the geometric mean of expected inflation over a five year estimation period. The AER's proposed approach is represented by:

$$AER's\ ten\ year\ real\ RoR\ = \frac{\prod_{t=1}^{10} (B_t^e)^{1/10}}{\prod_{t=1}^{5} (\pi_t^e)^{1/5}}$$

The AER's denominator can be rewritten as:

$$\prod_{t=1}^{5} (\pi_t^e)^{1/5} = \prod_{t=1}^{5} (\pi_t^e)^{2/10}$$

Equating the denominators of the two formulations (with the AER's denominator on the left and the denominator implied by the Fisher equation on the right) gives:

$$\prod_{t=1}^{5}(\pi_t^e)^{2/10} = \prod_{t=1}^{5}(\pi_t^e)^{1/10}\prod_{t=6}^{10}(\pi_t^e)^{1/10}$$

Simplifying gives:

$$\prod_{t=1}^{5}(\pi_t^e)^{1/10} = \prod_{t=6}^{10}(\pi_t^e)^{1/10}$$

and squaring both sides gives:

$$\prod_{t=1}^{5}(\pi_t^e)^{1/5} = \prod_{t=6}^{10}(\pi_t^e)^{1/5}$$

This last equation demonstrates that if the AER upholds the role of the Fisher equation in determining the relationship between nominal and real bond rates, then it must also be assuming the geometric mean of expected inflation in years 1 to 5 is equal to the geometric mean of expected inflation in years 6 to 10.[25]

Under the AER's proposed glide path, the geometric mean of expected inflation is:

(a) estimated to equal 1.95 per cent over years 1 to 5 (see p.67) – which can be inserted on the left side of the last equation above; and

(b) assumed to return to the middle of the RBA's target range (2.5 per cent) from year 5, meaning the geometric mean of expected inflation in years 6 to 10 will be 2.5 per cent. This value can be inserted on the right hand side of the last equation above.

Needless to say:

$$1.95\ per\ cent = 2.50\ per\ cent$$

is a meaningless result which highlights the logical inconsistency implied by the AER's proposed methodology for estimating expected inflation.

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[25] The explanation of the Fisher equation in AER's discussion paper (May 2020) pages 11 & 26, suggests the AER supports the role of the Fisher equation in defining the relationship between nominal and real bond rates.

Appendix B: Overview of consumer interviews

Background

Given time and resource considerations, the CRG decided to focus our consumer engagement on targeted interviews with representatives we had interviewed in response to the Inflation Discussion Paper. We interviewed 5 of the 6 previous participants and two of these also provided written supplements to their interviews. The sixth participant provided a written response addressing the CRG's questions (see below).

Two CRG members were present at all interviews. A list of participants and the CRG's questions are provided below. The discussions were conducted via web conferences. The interviews were conducted for 30 minutes. The CRG's questions were developed collaboratively among CRG members.

Summary of feedback from consumer representatives

The findings of the discussions are summarised below.

- Consumer representatives have a strong preference for a 10-year estimate of expected inflation, compared with a 5-year estimate, with most participants preferring the 10-year estimate.

  They also noted that over the past 10 years networks have received the benefits of adjustments to the transition to the trailing average for debt and the periods where inflation estimate was higher than the RBA target band. Moving now to a 5-year estimate disrupts the overall regulatory cycle of ups and downs and would not enable consumers to receive the compensatory level of benefits that had flowed to the networks.

  Two consumer representatives held a strong view that as both inflation and debt are currently considered over a 10-year horizon, any change to a 5-year horizon should be considered holistically as part of the Rate of Return Instrument Review. They suggested that if the Rate of Return Review results in a move to 5-year debt calculation it would be more reasonable to support the move to a 5-year expected inflation calculation.

- Most consumer representatives believe that, if the AER introduce a 5-year term, this should be done in parallel with the AER's review of the Rate of Return Instrument. Half also suggested any changes should be implemented with a transition period.

  Some participants were concerned about the potential impact of any immediate adoption of the glide-path and 5-year term given the AER's assessment of $300 million impact on consumers in the Victorian distribution businesses only. Postponement, or a transition might ameliorate this impact.

  Other participants considered that the details of the impact of any alternative approaches such as a transition period would need to be more clearly analysed by the AER in terms of how it would work and what would be the impact on consumers.

- The Consumer representatives who were interviewed do not support continued revisiting of the framework which they consider to be underpinned by a long-term concept.

- Across the group, there was a strong feeling that the networks seek changes when they perceive to be at a disadvantage (however temporary), where countervailing changes are

not raised when consumers are at a disadvantage, such as when inflation was higher than the RBA target.

Consumer representatives question whether consumers ever benefit from the upside of the framework because of the constant reviews sought by networks. One participant observed:

> *"I can understand in theory that there are 'swings and roundabouts' where consumers/networks 'win' or 'lose' … Yet I have not seen any data to back-up the theory … What I do know is that there is network pressure whenever they see themselves as a 'loser' – that was the reason they sought a move from the bond breakeven approach that applied before 2008. And that is why they sought a return to the bond breakeven approach in the 2018 inflation review."*

- Half accepted the proposal for a glide path although one stated that a glide-path would not be necessary if the AER introduced a 5-year inflation estimation period.
- The AER needs to adopt a high bar before it considers any changes to the regulatory framework. This concern was often raised in the context of consumer confidence in the regulatory framework, the AER and networks.
- Some participants observed the AER is empowered to make decisions around the estimation of inflation and too much consultation can erode consumer trust and elicit negative reactions from consumers. They stated that trust is earned by making the right decisions.
- Half of the participants suggested the problems of swings and roundabouts and inflation estimation generally, would be better addressed by having an annual true up for actual inflation in the estimation of the WACC.

Interview questions

Question 1: Overall question about change

The AER's proposal will sometimes favour networks and sometimes favour consumers. On the swings and roundabouts, it should all even out. Implementing it now would favour the networks. Does that cause you any particular concerns? Why do you say that?

Question 2: Glide-path

Thinking just about the AER's draft proposal to adopt a glide-path (which could be applied over 5 years or 10 years); Do you think this would improve the AER's estimate of expected inflation in line with regulatory objectives.

How do you think this glide-path should apply – under all circumstances or just for the current period?

What should be the features of an effective glide-path?

Question 3: 5- versus 10 –year estimation of expected inflation

The AER has proposed to estimate expected inflation over 5-years with a glide path to the mid-point of the RBA's inflation target range.

Part A: Do you agree in principle with the AER on its proposal to adopt a 5-year term for estimating average expected inflation in line with the regulatory period? Why do you say that?

Part B: The AER's proposal also includes a glide-path. Do you think a glide path would be necessary if the AER used a 5-year term for its estimation?

Question 4: Implementation of a 5-year approach

The AER has suggested a number of ways that the 5-year term for estimating expected inflation might be implemented. The AER has suggested four options We are interested in knowing your preferences. The four options are:

1. Introduce the 5-year term at the start of 2021 (along with a 5-year glide-path)
2. Introduce the 5-year term at the start of 2021 but include a transition period say over 5 years to smooth the impact on consumers.
3. Introduce the 5-year term at a later date when consumers may be less exposed to network price increases.
4. Introduce the 5-year term in parallel with the AER's review of the Rate of Return Instrument, to be completed in late 2022.

Which is your preferred approach? Why do you say that?

Are there any other of the four options that would be reasonable? Why do you say that?

If you preferred 2, 3, or 4, should the AER still introduce a glide-path from the start of 2021 to achieve a better estimate of expected inflation in its next regulatory decisions?

Engagement details

Date Interviewed	Interviewee	Organisation
22 October 2020	Miyuru Ediriweera	Public Interest Advocacy Centre
22 October 2020	David Headberry	Major Energy Users
23 October 2020	Mark Grenning	Energy Users Association of Australia
22 October 2020	Robyn Robinson	Council of the Ageing
22 October 2020	Gavin Dufty	St Vincent de Paul
30 October 2020	Mark Henley	Uniting Communities

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