29 June 2017

Mr Warwick Anderson
General Manager, Network Finance and Reporting
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

Via email: warwick.anderson@aer.gov.au

Dear Warwick,

Submission to regulatory treatment of inflation – Discussion Paper

AusNet Electricity Services Pty Ltd **(AusNet Services)** welcomes the opportunity to make a submission in response to the Australian Energy Regulator's **(AER)** Discussion Paper on the regulatory treatment of inflation. We also appreciate the opportunities provided to date to participate in the AER's review process.

Inflation is an important input into the determination of revenue and prices for electricity and gas network services and has been the subject of debate in a number of recent regulatory reviews and appeal proceedings. AusNet Services commends the AER for seeking to respond to the issues raised by some networks, including AusNet Services, by undertaking this review. We encourage the AER to conclude this review within the timeframes specified in the Discussion Paper and, therefore, be in a position to adopt the review's outcomes in its final decision for the 2018-22 Victorian gas distribution Access Arrangement review.

We consider that the current regulatory treatment of inflation does not achieve the intent of the National Electricity and Gas Rules, which is to ensure that network revenues (and, therefore, customer prices) reflect the impact of actual inflation. This recognises that inflation is an efficient cost faced by networks.

Under the current regulatory treatment of inflation, a deviation between the AER's forecast inflation (applied as part of a regulatory determination), and actual inflation outcomes influence the compensation received by networks, and the prices paid by customers. Hence both networks and customers are exposed to 'forecasting risk'.

We would support changes to the PTRM and/or RFM that better give effect to the intent of the Rules. Such changes would be justified where they achieve a scenario where customer prices only reflect actual inflation. We are, however, interested in the views of other stakeholders, particularly whether consumers would prefer to fund actual inflation only, or maintain the current approach where revenues and prices are affected by differences between actual and forecast inflation.

In relation to the best estimate of expected inflation, we consider the breakeven approach is the best forecasting methodology available. This is supported by the findings of an independent study conducted by Cambridge Economic and Policy Associates. Should the AER consider that continued use of an RBA-based approach is warranted, this submission suggests some alternative RBA-based approaches for consideration.

The remainder of this submission provides further discussion on the issues identified above. We also support the submission made by Energy Networks Australia.

Regulatory Treatment of Inflation

Actual and expected inflation are important inputs into the determination of revenue and prices for regulated networks. It is not controversial that the intent of the regulatory framework is to enable networks to recover their efficient costs, which include the effect of actual inflation faced by the networks. As a result of this, customer prices should reflect the impact of actual inflation, but not more or less than this.

Under the current regulatory framework, forecast inflation is used to:
• Set a nominal rate of return; and
• Deduct expected inflation indexation of the RAB from the depreciation building block and, hence, determine a revenue requirement in real terms.

Once a price or revenue determination is made for a given regulatory control period, actual inflation is used, typically on a one-year lagged basis, to:
• Determine allowed revenue and prices in each year of the regulatory period; and
• Roll forward the RAB at the end of the regulatory period to provide compensation for inflation indexation (i.e. the amount that was removed to determine a real revenue stream).

Accordingly, expected and actual inflation is applied in a number of different ways in the current regulatory framework, with impacts on revenue, prices and the value of the RAB.

If the forecast of inflation used in a regulatory determination matches both the inflation expectation in the rate of return and actual outturn inflation, then the revenues recovered during the regulatory control period will reflect efficient costs, and the inflation compensation removed from forecast revenues will be recovered, at the end of the regulatory period, through indexation of the RAB via the RFM.

However, any mismatches between these different inflation parameters give rise to revenue and price impacts that are solely attributable to the mismatch between actual and forecast inflation. The price and revenue impacts of these mismatches, which may be borne by either regulated networks or consumers, depend on the magnitude of these differences.

Accordingly, in our view the current regulatory treatment of inflation gives rise to two potential mismatches, which are due to differences between:
• The expected inflation that is implicit in the nominal rate of return, and the inflation forecast used to calculate regulatory depreciation; and
• The inflation forecast used to calculate regulatory depreciation, and the actual inflation used to roll forward the RAB.

These mismatches are complex, with some uncertainty existing as to the long-term financial implications they have for both networks and consumers. However, what is clear is that the current regulatory regime is intended to ensure that:
• Networks only recover an allowance for inflation that reflect the change in its efficient costs attributable to inflation; and
• Customers are only exposed to the impact of inflation on networks' efficient costs;

While the RBA approach used by the AER may, on average, accurately forecast inflation outcomes over the long run, the mismatch between the RBA approach and actual inflation outcomes in the short run can be, and has recently been, very severe. As explained above, the impact of this mismatch is to either over- or under-compensate networks, with customers paying relatively more or less than required to compensate networks for the efficient impact of inflation.

In contrast, the breakeven approach has historically produced inflation estimates that more closely align with actual inflation outcomes year-on-year. While this forecast is generally more volatile than the RBA approach, this is consistent with the variability demonstrated by actual inflation outcomes. Further discussion on the best estimate of expected inflation is provided in the next section.

In light of the mismatch issues identified above, we would support changes to the PTRM and/or RFM that sterilise these mismatches. We consider that amendments to these models are justified where they achieve a scenario where customer prices are not exposed to the risk that forecast inflation will not align with actual inflation.

Determining the best estimate of expected inflation

A more accurate forecasting methodology that provides the best estimate of expected inflation for use in regulatory determinations reduces the degree of the mismatches outlined above and, hence, lessens the need to make changes to the regulatory models to address the financial implications of these mismatches.

Outturn market expectations of inflation cannot be observed, making it difficult to assess the accuracy of different methods of estimating expected inflation. Indeed, expectations of inflation over a particular horizon may legitimately differ from the actual inflation values that eventuate over that period.

However, if a particular method produces estimates of expected inflation that differ materially to current levels of inflation, it is appropriate to assess whether such differences are warranted, or attributable to a bias in the forecasting method. That is, do such differences reflect a legitimate divergence between current levels of inflation and investors' expectations of inflation, or do they reflect a bias in the forecasting method that is leading to an over or under-estimate of these expectations?

In our recent regulatory proposals, we estimated inflation using the breakeven approach on the basis that this approach produces the best estimate of expected inflation.[1] We submitted that the RBA approach was producing an inflation estimate that was not consistent with prevailing inflation expectations at the time. We considered the AER's use of the RBA approach, coupled with its approach to setting a nominal rate of return, was implying negative real returns for bonds, even where indexed bonds offering guaranteed positive real returns were available in the market.[2] On the other hand, we considered that the breakeven approach produced inflation forecasts which are based on the same market data and consistent with the market expectations that inform the nominal WACC.[3]

---

[1] See, for example: AusNet Services, *Gas Access Arrangement Review 2018-22: Access Arrangement Information*, December 2016, p.187
[2] Ibid., p.225
[3] Ibid., p.226

We remain supportive of the breakeven approach as a better method of estimating expected inflation than the RBA approach, given the way in which inflation is applied in the regulatory framework.

Energy Networks Australia engaged Cambridge Economics and Policy Associates (CEPA) to undertake a study to assess the best approaches to estimating market expected inflation. CEPA concluded that breakeven is the best approach because it aligns with the regulatory framework, is a market based approach, is supported by regulatory precedent in Australia and internationally and there are transparent and relatively accessible data sources and methods that can be used to calculate breakeven inflation.[4]

AusNet Services supports CEPA's findings.

While the Discussion Paper contends that the RBA approach is the simplest to apply, most transparent and easily replicable,[5] we consider that these criteria are of lesser importance than 'congruence with market expected inflation'. In this regard, CEPA stated that "…we consider that congruence with the market-expected inflation expectations is the most materially important criterion."[6] We agree with CEPA, and consider the 'accuracy' of an approach in respect of its estimates of inflation expectations should take primacy over whether an approach is highly simple, transparent or replicable, so long as the approach is practicable.

AusNet Services believes that alignment with the regulatory framework is a fundamental consideration when assessing different methods of forecasting inflation. Failing to achieve this alignment within a regulatory determination creates an internal inconsistency between the revenue building blocks and, hence, between the total revenue requirement and the Rules requirements for revenue to reflect efficient costs.

The use of the breakeven approach demonstrates strong alignment with the regulatory framework's use of nominal CGS yields to set a nominal WACC. In contrast, the RBA approach risks producing an estimate of inflation that is disconnected from investors' expectations, if these expectations are no longer anchored to the mid-point of the RBA's target range. The Discussion Paper accepts this as a potential shortcoming of the RBA approach:[7]

> *However, if the RBA inflation targeting is (or becomes) perceived to have lost its effectiveness and expectations are not anchored within the target band, then estimates from the RBA inflation target method may not be the best estimates of expected inflation.*

CEPA found that inflation expectations may not be anchored to the midpoint of the RBA target band, and that expectations are more likely to fall within the lower half of the range.[8]

For the reasons above, we consider the breakeven approach provides the best estimate of expected inflation.

Should the AER consider that the limitations of market-based approaches warrant continued use of the RBA approach, we consider that alternative RBA-based approaches, some of which

---

[4] CEPA, *Inflation expectations – Energy Networks Australia*, June 2017, p.24
[5] AER, *Regulatory treatment of inflation: discussion paper*, April 2017, p.24
[6] CEPA, *Inflation expectations – Energy Networks Australia*, June 2017, p.6
[7] AER, *Regulatory treatment of inflation: discussion paper*, April 2017, p.26
[8] CEPA, *Inflation expectations – Energy Networks Australia*, June 2017, p.18

are identified in the CEPA study, should be given due consideration. These include estimating expected inflation by adopting:

- A glide path over a number of years from the RBA's short-term inflation forecasts to the mid-point of the RBA's band; or
- An average of an RBA-based approach and the breakeven approach. While this approach may be slightly more complex, it would be consistent with the approach taken to forecasting other parameters applied in regulatory determinations (e.g. the labour escalators used to derive operating and capital expenditure forecasts).

Should you have any questions on this submission, please don't hesitate to contact Rob Ball, Senior Economist, on 03 9695 6281.

Sincerely,

Tom Hallam
General Manager, Regulation and Network Strategy
AusNet Services