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Regulatory Treatment of Inflation
Discussion Paper
AER Reference 65487

Major Energy Users Inc (MEU) is pleased to provide its thoughts on the issues raised in the AER Discussion Paper relating to Regulatory Treatment of Inflation.

The MEU was established by very large energy using firms to represent their interests in the energy markets. With regard to all of the energy supplies they need to continue their operations and so supply to their customers, MEU members are vitally interested in four key aspects – the cost of the energy supplies, the reliability of delivery for those supplies, the quality of the delivered supplies and the long term security for the continuation of those supplies.

Many of the MEU members, being regionally based, are heavily dependent on local staff, suppliers of hardware and services, and have an obligation to represent the views of these local suppliers. With this in mind, the members of the MEU require their views to not only represent the views of large energy users, but also those interests of smaller power and gas users, and even at the residences used by their workforces that live in the regions where the members operate.

It is on this basis the MEU and its regional affiliates have been advocating in the interests of energy consumers for over 20 years and it has a high recognition as providing informed comment on energy issues from a consumer viewpoint with various regulators (ACCC, AEMO, AEMC, AER and regional regulators) and with governments.

Overview of the market from a consumer viewpoint

Overall, while the MEU considers that the AER Discussion Paper outlines the issues related to regulatory treatment of inflation reasonably well, the MEU is of the view that the concerns expressed by a number of stakeholders and advisers are overstated.

The MEU considers that it is important to see the issue of regulatory inflation in context of how consumers see the overall electricity and gas markets. With this in mind, the MEU makes the following observations.

- The regulatory bargain between consumers and network service providers is based on allocating risk to the party best able to manage the risk. In the case of inflation, it has been accepted that consumers would bear this risk so that networks would receive a specific real return on the investments they make to provide the service consumers need.
- In order to provide this real return over the course of a regulatory period, the regulator needs to make an assessment of what inflation might be for the coming regulatory period in order to establish the revenue allowed by the network to recover from consumers for providing the energy transport service.
- Networks have, on average, received a higher rate of return than the rate of return the regulator set[1] at the commencement of each regulatory period
- Networks are continuing to invest in their network assets and proposing significant future investments and large augmentations.
- The regulator has assumed that consumers require certainty of what network charges they will be required to pay over the five-year regulatory period and to provide this certainty, the regulator sets an allowance adjusted for outturn inflation that networks can recover from consumers. This allowance is smoothed to minimise yearly cost fluctuations by applying the CPI – X process where X is established prior to the commencement of the regulatory period. While the MEU does support the concept of smoothing revenue allowances to eliminate fluctuations caused by annual network cashflow variations, it also notes that this does not mean that the yearly network prices remain stable and predictable
- Over the past decade, the regulator has made changes to the way that the annual allowance for the provision of the network service is calculated such that no longer can consumers have certainty on the exact prices they will be required to pay to networks each year of a regulatory period. These changes include:
    - applying a revenue cap to the regulatory bargain (with the associated annual adjustment for over/under-recovery the previous year) for electricity networks, although gas networks still operate on a price cap approach,
    - the introduction of the trailing average debt approach (causing the cost of debt to vary each year leading to annual adjustments of the allowed revenue each year)

[1] See AER Electricity distribution network service provider data report – 27 August 2019 (page 12)

- addition of contingent projects, and
- pass through of certain additional costs

This means that from one year to the next, consumers do not know with any great certainty what network charges will be applied from one year to the next

- Consumers assess their energy costs on a delivered basis which means that they see volatility in their delivered electricity and gas prices caused by
  - network price changes (see dot point above),
  - wholesale market price changes[2],
  - adjustment from varying electricity settlement residues included in transmission network revenue recoveries
  - environmental cost changes[3] and
  - statutory changes (eg AEMO charges[4]).

As each of the core supply chain elements that make up the bill for delivered can exhibit considerable variation on an annual basis, the concept of setting firm network prices into the future to ensure price stability does not address the core outcome, that consumers see significant change and unforecastable delivered energy pricing on an annual basis.

It is with these observations in mind that the MEU provdes the following commentary on the Regulatory Treatment of Inflation for network revenue allowances.

What is the perceived problem?

The AER, rightly, needs to apply an estimate of inflation to the development of the forecast allowances for the regulatory period as historically, the amount of inflation over a five year regulatory period could lead to an increase in network prices of 10 - 20% from year 1 to year 5. This means the AER has to develop a tool to calculate what inflation might do over the regulatory period. It is also important that this estimate is as accurate as possible so that the forecast allowance provides a reasonably close representation of what is expected.

As consumers are prepared to accept the risk on inflation, networks should not be exposed to this risk and, in theory, the allowed rate of return they are entitled to should reflect that this is not a risk they carry. In contrast, if the risk of inflation is passed to networks, then they will, rightly, expect to be recompensed for the costs and/or the impact of the increased risk be recognised in their allowed rate of return.

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[2] In the case of small end users, the MEU points out that the default electricity market offers (DMO and VDO) vary on an annual basis whereas for larger users they might have a contract which fixes wholesale prices for a period. Gas prices also vary considerably annually as the ACCC highlights in its Gas Inquiry interim reports

[3] While environmental certificate prices can be agreed for a period of years, the MEU points out that the percentages (ie STP and RPP set by the Clean Energy Regulator) used to convert certificate prices to price/MWh are set annually and have varied by as much as a factor of two

[4] The MEU points out that AEMO charges increase each year but by varying amounts and in the electricity market, FCAS and RERT charges can materially change the AEMO annual costs

Networks have asserted that where the AER over-estimates the movements of inflation (ie where actual inflation is less than the forecast inflation), they do not recover the rate of return on equity the AER considers is equitable. If this is true, then where the AER under-estimates inflation networks will receive a rate of return on equity that is higher than what the AER considers is equitable and so consumers are penalised. The networks assert that in recent years, the AER forecast of inflation has consistently been over-estimated and so the networks have been financially disadvantaged for a number of years.

Sapere in its 30 June 2020 report to the AER[5] provides a view that there may be a problem from inaccurate forecasting, and observes that (page v):

> "Stakeholders have correctly identified that the current regulatory approach may result in negative cash returns to equity; negative cash returns to equity may occur with a low allowed nominal rate of return on equity and/or high leverage. **If, in addition, outturn inflation is low relative to expected inflation, then the return on capital may in amount be insufficient to meet the obligation to pay interest**." (emphasis added)

What Sapere identifies in its 2020 report is that there are potentially three causes that might lead to networks under-recovering the cash required to provide the expected rate of return on capital.

The first lies with the approach the networks take to financing network investments compared to the setting of the financial approach used by the AER to establish a rate of return for the benchmark efficient entity and ultimately the revenue allowance for each network. This is not an issue that is a result of inaccurate forecasting of inflation but embedded in the principles underlying the regulatory bargain.

The second lies with the inaccuracy in the forecast of expected inflation when it is compared to actual inflation. The Sapere analysis indicates that if forecast inflation is higher than actual inflation, then the networks will receive a **lower rate of return on equity** despite still receiving the expected rate of return on capital. The converse also applies that if the forecast inflation is lower than actual inflation, the networks receive a higher than allowed rate of return on equity.

The third issue lies with the use of expected inflation for year 1 of a regulatory period rather than actual inflation and not adjusting the year 1 allowance for actual inflation.

An aspect of the Sapere report is it does not explicitly reflect the impacts of the AER approach to forecasting inflation on the cost of debt although this can be deduced by Sapere provision of the rate of return on capital and the rate of return on equity – as Sapere identifies that regardless of the inflation actual/forecast mismatch **the rate of return on capital is constant**, so the rate of return on debt must be delivering a balancing amount to offset the identified reduction on the rate of return on equity.

[5] "Target return and inflation" input to the AER Inflation Review 30 June 2020

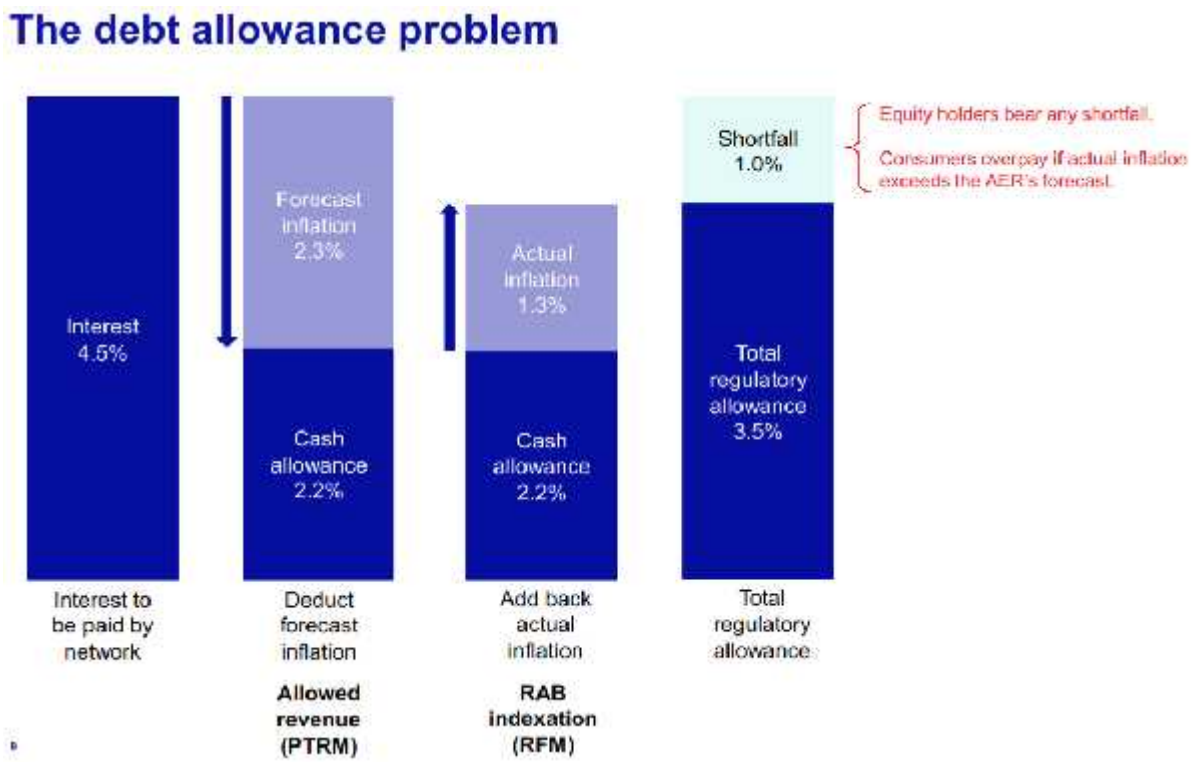
It is the view that the MEU considers that if there is a difference between the allowed real rate of return and the actual real rate of return that networks achieve caused by a difference between the estimated inflation and the actual inflation then there needs to be an approach which adjusts the allowance to reflect this reality

The MEU considers that if the current forecasting of inflation does not deliver an outcome that removes the risk from networks for the difference between forecast inflation and actual within each regulatory period (Including the first year), then it needs to be changed.

Is the problem real and/or significant?

The MEU considers that, as there is already an annual adjustment to the allowance to reflect actual inflation, then the problem might perhaps be only apparent and insignificant. This view reflects the 2017 modelling work carried out by the AER and endorsed by the Consumer Challenge Panel in its November 2017 report. The CCP observes that, if there is an error, it predominantly applies to the first year of the regulatory period and is probably insignificant.

In contrast, the networks disagree with the AER and the CCP and, in a presentation in July 2020 provide a simplistic approach by assessing the rate of return on debt to imply there is a short fall in the return on equity[6].



[6] ENA presentation, Review of AER's approach to inflation Network sector views Stakeholder Forum, 2 July 2020 Slide 9

What the ENA presentation does not examine is that the regulatory approach provides **a rate of return on capital** (not a return on equity) which is what the AER develops for application in the PTRM. Examination of the return on capital requires a complementary examination of the impact of the forecast inflation on the expectation of return on equity in order to develop the outturn impact on **the return on capital**.

The networks view is supported to a limited degree by the AER consultant, Sapere, who comment in their 2017 report[7]:

> "There is some residual risk to equity holders because service providers typically issue debt in fixed nominal terms. If actual inflation were less than expected, and hence nominal cashflows were lower, returns to equity would be lower than expected because the residual cashflow after meeting debt costs would be less than expected (conversely, if inflation is unexpectedly high, equity holders receive a benefit). This impact on the return on equity is magnified by leverage. For example, with leverage of 60%, a 1% difference between the AER's estimate of expected inflation from the expectation of inflation implicit in the nominal WACC, would mean a 2.5% difference in the nominal return to equity."

Sapere's 2017 report adds that networks could manage the inflation risk by the acquisition of inflation linked debt and that if errors are relatively small and not systematic, the risk to equity providers is compensated by the AER applying an equity premium at the high end of the reasonable range.

Sapere's 2017 assessment (and to some extent the modelling work undertaken by CCP) implies that there is a problem with managing the difference between forecast inflation and actual inflation, with a risk to consumers if the forecast is high and to the networks if the forecast is low. Equally, the modelling implies that error resulting from inaccurate forecasting might be modest over the long term.

However, the MEU points out that even if the inflation mismatch still delivers the allowed return on capital, there is a perception issue, in that if the return on equity is seen to be too low, investors might be less willing to provide funds for needed investments in the network which would negatively impact consumers over the longer term.

What tools are there available for better forecast inflation?

The MEU notes that there are a number of tools available to assess future inflation which might be used (eg, market-based approaches, surveys, a glide path from the RBA forecast to the mid-point of the RBA target range, etc). The AER also suggests that difficulty in more accurately forecasting inflation could be overcome by using a

[7] Efficient allocation and compensation for inflation risk" dated 25 September 2017

nominal cost of capital and depreciated actual capital[8] involved in providing the assets.

Inherent in the market-based approaches is an assumption that the market-based forecasts (eg the difference between nominal and inflation linked debt instruments) are more accurate than the current AER approach. What is overlooked is that market-based assumptions are still only forecasts, albeit with a preparedness of the forecasters to take the risk if they are wrong! Because the forecasters accept they might be wrong, they price their offerings taking this risk into consideration, so implicitly market-based approaches will tend to deliver outcomes biased to give protection for the provider. Effectively, the inflation linking inherent in market-based approaches includes a cost for taking a risk on inflation which will ultimately, over the long term, deliver outcomes that will result in consumers bearing higher costs than necessary despite consumers accepting the risk on inflation.

Sapere suggests that the networks could manage the inflation mismatch risk through market-based means, but the MEU points out that there is a cost for transferring risk and this cost would ultimately transfer to consumers through higher network charges, even though consumers have accepted the risk on inflation movements.

The MEU points out that using the RBA assessment of future inflation for the next 2 years is effectively a form of survey (a view generated from a range of "experts") and this has been demonstrated to be inaccurate when assessed ex post. Averages of surveys of other expert views (eg from market economists) also deliver outcomes that are demonstrably inaccurate when assessed ex post.

Professor Vahey in his report[9] agrees that there is a latent problem in that (page 17):

> "…actual inflation almost always differs from the real-time measures of inflation expectations…"

The MEU notes that the glide path approach refinement to the current AER approach also introduces more assumptions which will introduce errors. Vahey cites examples of these including the determining the length of the glide path (ie the time between the two-year forecast released by the RBA and the time when the glide path meets the mid-point of the RBA target range for inflation) and the form of extrapolation (eg linear, power, exponential, etc).

Overall, none of the approaches, used or proposed, to generate a forecast of future inflation is likely to deliver a more accurate outcome than the current AER approach, yet it is also probable that the current AER approach could be leading to outcomes that will harm either the networks or consumers should the forecast be inaccurate.

This means that an alternative approach is needed.

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[8] This is the approach implied in Part 23 of the National Gas Rules clause 569 which requires an arbitrator to use a commercial rate of return and depreciated actual costs for providing the pipeline as the basis for assessing an equitable cost for providing the gas transport service

[9] Report to the AER on estimating expected inflation, September 2017

The MEU proposal

As consumers have accepted the risk for inflation, the networks should not be disadvantaged (or advantaged) should forecasts of inflation be inaccurate where this inaccuracy leads to distortions of the allowed revenue. Equally, consumers should not be exposed to costs that can be avoided.

The MEU considers that, as consumers have accepted the risk of inflation, then an ex post adjustment of the inflation forecast[10] to actual inflation will deliver the lowest cost to consumers over the long term, as networks would otherwise seek recompense for additional costs if they are required to "manage" the risk on behalf of consumers.

It has been highlighted that the reason for "locking in" a forecast of inflation has been to provide greater certainty of future network prices. As pointed out above, consumers have little certainty about what prices they will actually pay for their delivered energy usage in the future due to the considerable variation in prices for each element of the supply chain that forms their delivered price of energy. This means that the ostensible reason (ie to provide certainty of future network prices) for not carrying out an ex post adjustment to reflect the actual inflation has no validity.

With this in mind, there is a clear benefit to consumers to carry out an ex post adjustment to correct the network allowance to reflect the change from forecast inflation to actual inflation, rather than leaving any residual risk to the networks to manage. In fact, there may be a detriment to consumers if such an ex post adjustment is not made, especially if the inflation forecast is lower than the actual inflation, as there is the potential that investors might not consider the headline return on equity too low to warrant future investment and so increase consumer risk.

The MEU notes the reasons espoused by Professor Vahey not to implement an ex post adjustment. He states in his report (page 17) that

> "…the approach would generate considerable unease among most stakeholders and the public."

The MEU disagrees as consumers will not see any detriment by implementing an ex post adjustment and it would remove the concern stated by networks that the current practice disadvantages them.

Professor Vahey also expresses a view that

> "[ex post adjustment] may also open up disputes with stakeholders along the lines of "what is the best measure of inflation?""

[10] The MEU notes that APA in its response to the 2017 review, also promoted the concept of an ex post adjustment

The MEU points out that the inflation approach used by the AER currently uses the RBA national inflation estimate and the ABS produces an equivalent assessment of inflation based on the consumer price index all groups. There is already acceptance of the ABS assessment of inflation as this has been used by the networks to demonstrate there is a problem so the MEU does not consider this argument has validity.

The AER has expressed a view that rather than applying a real rate of return to an inflation adjusted asset base and that, to eliminate the need to forecast inflation, the approach could be changed to apply a nominal rate of return to the historic cost of the investment – an approach that is to be used by an arbitrator under Part 23 of the gas rules[11] and which is used as the basis for all financial reporting under the accounting rules.

The MEU notes that the use of real rates of return and a CPI adjusted asset base has been in place for the life of the NEM and to change from this approach warrants deep analysis as to the benefits and detriments to implementing such a change. While the MEU considers that, while such a change might be appropriate and provide other benefits, it is not convinced that the discussion on how best to treat forecasting of inflation is the appropriate forum for making such a major decision. The MEU points out that the National Electricity Rules currently require the asset base to be indexed to reflect actual inflation to maintain the "real" value of the asset base and so to implement the option would require a change to the Rules.

The MEU is happy to discuss the issues further with you if needed or if you feel that any expansion on the above comments is necessary. If so, please contact the undersigned at [redacted] or [redacted]

Yours faithfully

[redacted]

David Headberry
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[11] The MEU was an active supporter of this approach when Part 23 was being developed