Overall Rate of Return

Comments on the AER Draft Working Paper

David Havyatt – Public Forum, 4 August 2021

Network of Illawarra Consumers of Energy

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Warning (or apology)

Most of this presentation relates to Part A of the paper and some of it covers matters that the AER thinks are already resolved.

Why the Rate of Return Matters – The LTIC

- AER view that there is a ‘right’ allowed rate of return (ARoR).
  - If ARoR too high – economic profits and incentive to over-invest.
  - If ARoR too low – disincentive to invest and declining reliability.
- Creates mangled language of the ‘unbiased estimate of efficient return’. Neither is a meaningful term.
- The overall objective of economic regulation is current and future consumers pay no more than they need to for the quality of service they want.
- Objective for setting the ARoR is to fulfill the overall objective of economic regulation having regard to the relationship between ARoR and other parts of the framework.

Overview of the Rate of Return Framework – PBR

- The AER introduces this section by referring to the ‘building block’ approach to determining expected costs, and the incentive mechanism created by the right of the regulated business to be the residual claimant of cost efficiencies.
- Consistent with evolving US regulatory literature and practice the regime is most accurately described as Performance –Based Regulation. PBR schemes have four elements.
  - MRP – Multi-Year Rate Plans
    essential difference between price caps and historic rate making
  - ARMs — Attrition Relief Mechanism
    that automatically adjust rates (or revenue) for changing business conditions such as inflation (as in CPI-X) Fundamentally ARMs should address all the variables that are outside of the network’s control.
  - ESMs — Efficiency Sharing Mechanisms
    specify how the rewards of efficiency improvement by the utility should be distributed between itself and its customers. (Our EBSS and CESS)
  - PIMs — Performance Incentive Mechanisms
    (PIMs) have been used for some time in the US. (STPIS and CSIS)
- All the elements of the PBR Framework go to achieving the balance between price and reliability.

Inter-relationship among parameters

- The AER has described a framework in which the overall rate of return is:
  - first decomposed into return on debt, return on equity and gearing
  - then return on equity is decomposed into risk-free rate, market risk premium and asset beta as well as gamma to cover tax imputation credits.

- None of these has a clear single observable value, and certainly all we see are realised values not efficient values. Most are unobservable, e.g.
  - Gearing on market values of firms that are not listed is a nonsense because there is no market value of equity to use.
  - Even if every firm is listed the value of beta is not measuring investors expectations of the variance of the cashflows, it is measuring investors expectations of the variance of the regulator's decisions.

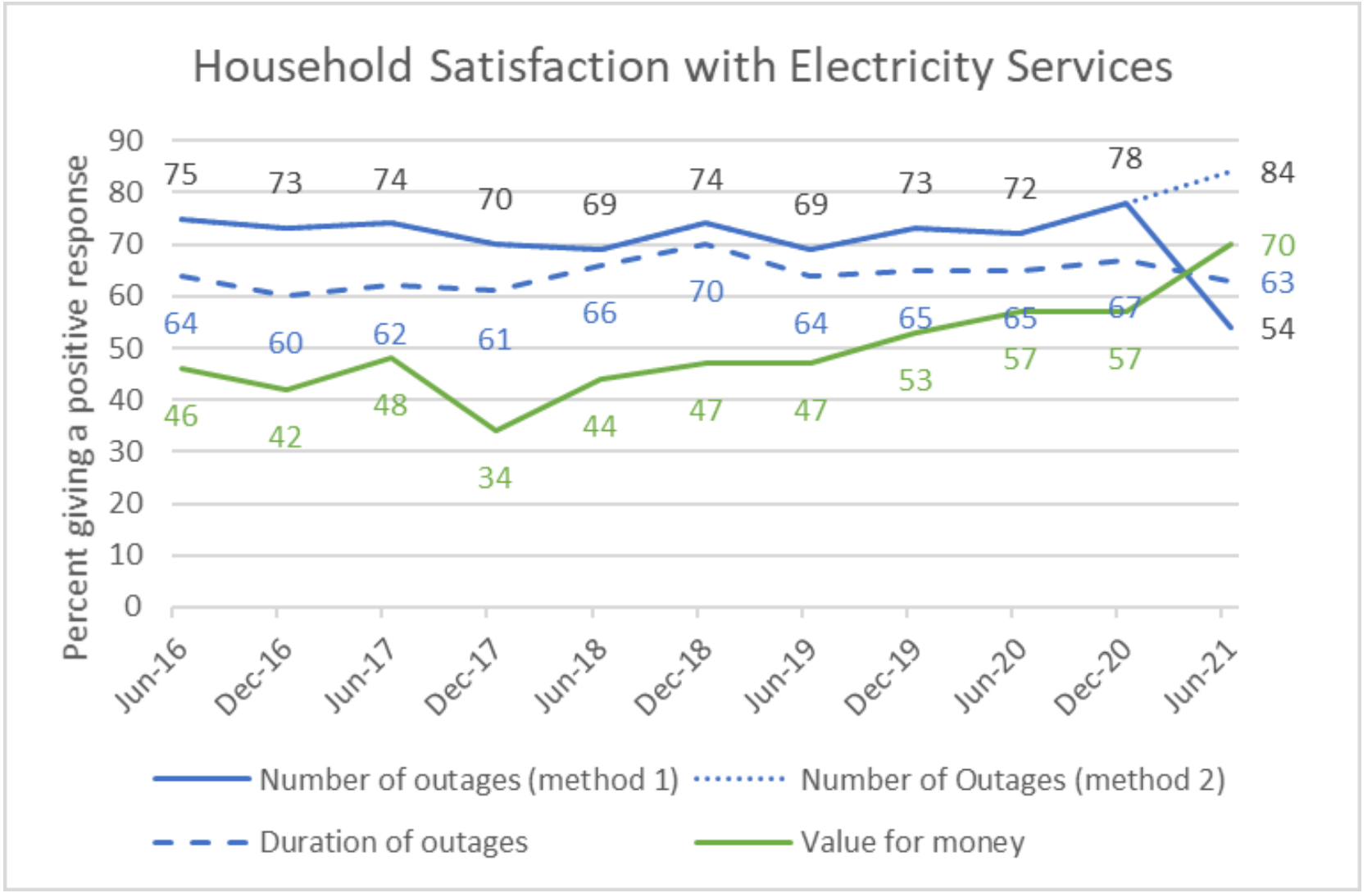
- Incentives change the expected cashflows and hence the rate of return.
  - If we temporarily accept the fiction of a cashflow, we can notionally talk about the mean and variance of the cashflows that determine the expected rate of return.
  - As the incentive schemes have a pay-off distribution (mean and variance) we can ask what the impact would be from adding the incentive scheme to the pre-existing distribution of cashflows, and we can analyse this on the two dimensions of mean and variance.

Decision Making Framework – Why Stability Matters

- AER view:
  - *The legislative framework does not prescribe methodologies or lock in specific benchmark characteristics for the estimation of the various components of the rate of return. Rather, it provides discretion and requires us to exercise judgement about the analytical techniques and evidence to use to make an estimate that is commensurate with efficient financing costs.*
- The AER errs in this assessment.
  - The legislation only requires that the rate of return instrument will, or is most likely to, contribute to the achievement of the NEO/NGO to the greatest degree.
  - The AER's judgement is to be exercised on the decision as a whole, not on the 'analytical techniques and evidence'.
  - The concept of 'efficient financing costs' is an AER construction of the NEO/NGO that is, at best, subordinate to the over-arching goal.
- What matters to consumers and investors is stability and predictability about the allowed rate of return.
  - Stability in detailed criteria (which the AER has reviewed and think remain useful) is not predictability and stability if at each review a new analysis is conducted on the estimate processes used for each parameter in the model.
  - As an example, financial management inside networks needs to be able to predict the allowed rate of return and organise financing accordingly; if changes made to respond to the allowed rate of return then result in changes to the allowed rate of return then there is a risk of ongoing instability and second-guessing.

Some comments on additional matters

- Gearing
  - The question arises – has the gearing required to raise capital at least cost changed or has that not changed and only the AER's approach to estimating it changed?
  - The AER's approach to using market rather than book values remains inconsistent with the approach to RAB indexation.
  - The framework for energy regulation is more specific than most others in its guarantee of financial capital maintenance, and therefore gearing would be expected to be higher than in other sectors.
  - The issue of hybrid securities simply further demonstrates that the AER should not be contemplating any change to gearing.
  - Summary – 60% is already too low, but it should not be reviewed.
- Gamma
  - The reasoning proposed by the CRG for setting a gamma close to 1 (actually 0.9) remains the correct interpretation of how gamma should be estimated consistent with least cost financing.
  - However, if the AER cannot be persuaded by this argument then the 2018 approach remains appropriate.
- Overall cross checks
  - The only cross check that matters is how the balance between prices and reliability has been maintained by previous decisions and therefore whether there is an underlying reason to vary the spread between the WACC and the risk free rate.
  - Evidence is that consumers are more satisfied with price than they were while no more dissatisfied with reliability (next slide). The AER's decision in the 2018 RoRI has contributed to this stabilisation and therefore maintaining the same spread between the risk-free rate and the ARoR would appear to be most likely to promote the LTIC.



Source: Energy Consumers Australia, Energy Consumer Sentiment Survey

Missing Elements 1 – markets for equity

- AER notes this has been included in the equity paper, but for now one question…

  if the network investors really do so badly out of the Australian regulatory environment why are they so heavily structured as unlisted entities…

  it isn't because there is a shortage of capital in Australia, we are now a net exporter of investment capital…

  so what else could it be…

Missing Elements 2 – Impact of Incentives

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  - As the incentive schemes have a pay-off distribution (mean and variance) we can ask what the impact would be from adding the incentive scheme to the pre-existing distribution of cashflows, and we can analyse this on the two dimensions of mean and variance.

Variance \ Mean	Unchanged	Changed
Unchanged	No change	Beta will decrease (increase) as mean increases (decreases).
Changed	Beta may increase	Beta may change depending on how ratio of variance to mean changes

References:

- 'Return on equity: Potential rewards for superior performance should never be used to make up for an inadequate allowed ROE. The market-required cost of equity should be established independent of performance incentives.'
  McDermott, KA & Hemphill, RC 2017, 'Next-generation PBR', *The Electricity Journal*, vol. 30, no. 1, pp. 1-7.
- 'Regulation directly affects investment decisions, and a fully optimal regulatory regime must provide incentives for efficient investment as well as for efficient operation. It must also be recognized that changes in the regulatory regime will alter the riskiness of the utility and thus generally affect its cost of capital.'
  Joskow, PL & Schmalensee, R 1986, 'Incentive Regulation for Electric Utilities', *Yale Journal on Regulation*, vol. 4, no. 1-49.
- 'The reasons for rejecting the PR19 determinations identified by the Disputing Companies included that Ofwat had:…increased levels of risk for companies (notably from asymmetric outcome delivery incentives (ODIs)) and, together with the other elements of the determination, this had undermined their financeability.
  CMA 2021 *Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations: Final report*