Bifurcation in the economic regulation of network service providers in the National Electricity Market

Research for and advice to the Public Interest Advocacy Centre in relation to the Governance Review of Australian Energy Markets

May 2015

Table of Contents

1 Introduction

The Public Interest Advocacy Centre is preparing a submission to the Review of the Governance of the Australian Energy Markets. In the development of its submission, we have been asked to prepare briefing and advice addressing the issue of bifurcation of economic regulation, and the inclusion of broader considerations such as explicit environmental protections in the objectives of the electricity law. This paper deals with the first topic.

2 Bifurcation in the economic regulation of network service providers in the National Electricity Market

2.1 Introduction

Economic regulation in the National Electricity Market (NEM) is split between the Australian Energy Markets Commission (AEMC) which is responsible for the design of regulation, and the Australian Energy Regulator (AER) which is responsible for its implementation. While the line between "design" and "implementation is not always clearly drawn, the separation of regulatory design and implementation ("bifurcation") between two regulatory institutions is unique, as far as we know, not just in the regulation of utility monopolies in Australia but also in other countries.

This institutional arrangement came into existence with the creation of the AEMC and AER in 2005. Prior to this, in respect of the regulation of electricity and gas transmission by the Australian Competition and Consumer Commission (ACCC), and electricity and gas distribution by state-based commissions, such institutional bifurcation did not exist.

We are not aware of any document in the public domain (or privately) that explains why this approach, compared to alternatives, was adopted. This absence of documented assessment is unusual considering the significance (and uniqueness) of this arrangement. In the first part of this paper, we speculate on the rationale for the bifurcation. In the second part of the paper we argue that bifurcation has lead to ossification. The last part of this section we suggest, briefly, the desirable attributes of effective economic regulatory institutions.

2.2 The rationale for bifurcation

During the recent Senate Inquiry[1], Paul Smith, the Chief Executive Officer of the AEMC was asked to explain why the design and implementation of regulation was separated between the AEMC and AER. He replied[2]:

"These are different functions. The making of rules is a different function from the implementation and application of the rules. They require, I would argue, different considerations, different analysis and different knowledge and skill. They are separate roles in that regard, and that is, in part, why they have been separated out in the way that they have."

As far as we know, this is the only time that the AEMC has ever been asked, publicly, to explain why regulatory design has been separated from regulatory implementation. Mr Smith's answer is unconvincing: while the design of regulation is indeed different to its implementation and there is no doubt that different skills are needed for each, why does that justify why design and implementation should be institutionally separated when it was not previously and when evidently this separation seems to have no other precedent?

The only publicly available document that we are aware of that, albeit obliquely, broaches the rationale for the separation of the design and implementation of economic regulation is a report to the Council of Australian Governments by the Ministerial Council on Energy (MCE)[3]. This report was the outcome of negotiation over the preceding 12 months by senior officials from the Australian Competition and Consumer Commission (ACCC) and senior officials from jurisdictional governments. The principal focus of the negotiation (and the report) was the creation of the AEMC and the AER.

---

1 Environment and Communications References Committee, April 2015. "The performance and management of electricity network companies". Available from www.aph.gov.au

2 Transcript, available from http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22committees%2Fcommsen%2Ff1de322f-df61-45f5-a508-e271537ec211%2F0000%22

3 "Reform of Energy Markets", 11 December 2003.

The MCE Report provides no explicit rationale for the separation of regulatory design from regulatory implementation. Hearsay, from some of those involved in the negotiation, was that state governments were not willing to transfer the economic regulation of their electricity and gas distribution networks to the ACCC, without confidence that their pecuniary and other interests in these activities could be protected.

We understand that some states were particularly concerned that the ACCC was excessively focused on consumer protection to the detriment of investors (of which the state governments were themselves the largest). The protection to ensure continued state control, we are told, was a regulatory institution (the AEMC) appointed by and accountable to the states that would effectively control regulatory design and oversee the AER.[4]

This is of course mere hearsay. However an analysis of the MCE Report suggests that this is a plausible explanation. In particular the Report focussed on regulatory arrangements that would enhance "investment" a term used 23 times in the Report of which 15 times in the context of networks. By contrast "efficient" is mentioned just once in the report in relation to networks and even then followed immediately by the word "investment".

The first dot point recording Ministers' agreement on the purpose of the "further reform" alluded to in the Report is that such "further reform" is intended to "*Strengthen the quality, timeliness and national character of governance of the energy markets, to improve the climate for investment*". The second dot point is to "*Streamline and improve the quality of economic regulation across energy markets, to lower the cost and complexity of regulation facing investors, enhance regulatory certainty …*"

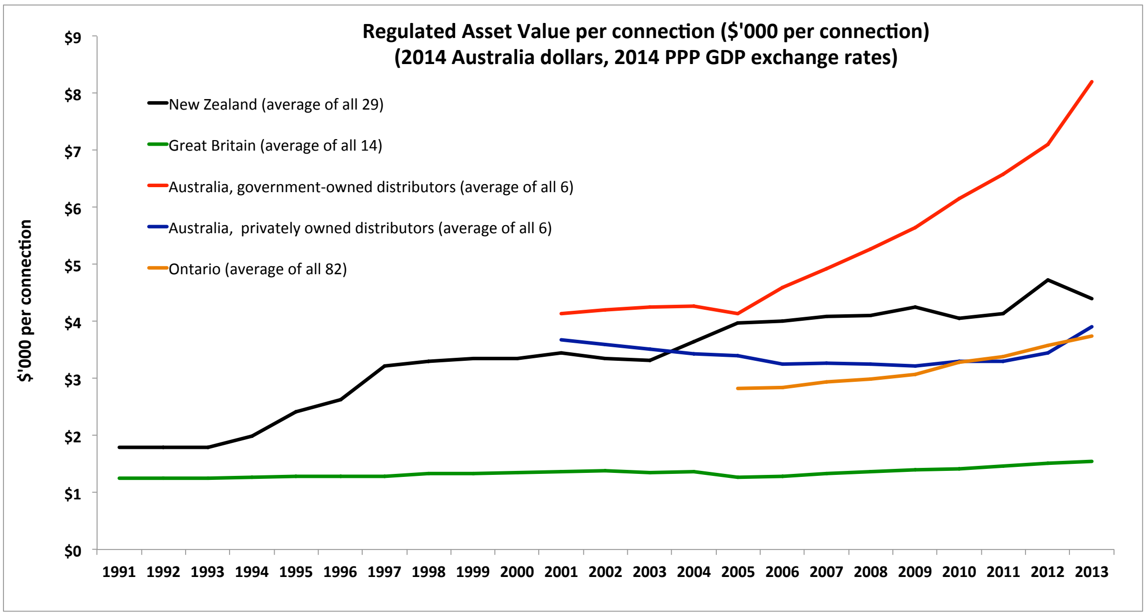
---

[4] The AER is a "consistent part of the ACCC". One of its three members are appointed by the states and its chair is jointly appointed by the Commonwealth and a majority of states/territories). The AEMC is a three person commission reporting to the MCE (now COAG Energy Council) two of whose commissioners and Chairman is appointed by "the states".

The focus on investment is again evident in the section dealing with "economic regulation". The first paragraph of that section says "*The regulation of network access (prices and standards) seeks to balance energy users' short-term interests in price benefits with their long-term interests in a reliable supply, service enhancements and timely investment in new capacity. The making of market and regulatory rules aims to provide reasonable stability to market participants …*" To put this another way, and more plainly, we understand this to be saying that a system of rules to be determined by an authority separate to the ACCC/AER is needed to guard against consumers' short-sighted preference for lower prices to which, without rules set by another authority, the ACCC/AER would be susceptible.

The need to refer to hearsay and the parsing of just one somewhat oblique official report is highly unsatisfactory, but in the absence of other documentation, is unavoidable in trying to discern the rationale for the bifurcation of the design and implementation of economic regulation. If indeed the underlying rationale for bifurcation is to promote network investment, then Figure 1 below shows that this objective has been achieved.

Figure 1. Regulated Asset Value per connection in Australia, Great Britain, New Zealand and Canada (2014 Australian dollars thousand, PPP GDP exchange rates)



The figure compares distributor regulated asset values per connection for distributors in the NEM, Great Britain, New Zealand and Ontario. The rapid escalation in regulated asset values per connection by state government-owned distributors in the NEM from 2005 is remarkable. Our econometric analysis, currently underway, suggests that network length, network reliability, network peak demands, customer density and the proportion of network that is underground rather than overhead, are not statistically significant explanations of the outcomes in Australia whereas network ownership is.

Political economy

A paper by Peter Nicholas[5], an Australian Government Solicitor, provides an alternative view on the argument for the separation of regulatory design ("rule making") from its implementation:

"Another key achievement of this delegated rule-making function is to enshrine separation

[5] Nicholas, P. 2008. Administrative law in the energy sector: Accountability, complexity and current developments, AIAL Forum No. 59

between rule-making, and hence policy development, and the task of applying and enforcing the rules. This 'separation of powers' is another institutional innovation of the energy reforms to deal with the perception of regulatory creep by government agencies without the need to refer more matters back to the scrutiny of Parliament … The key feature and accountability mechanism of these additional requirements is that they always remain subject to the guidance, limitations and constraints imposed by the rules and are subject to amendment through the rule change process."

Nicholas is suggesting that state governments had delegated their role in policy development ("rule making") to the AEMC who would then oversee the AER (and ensure it did not take on "policy" itself) through "the guidance, limitations and constraints imposed by the rules".

This is a momentous shift in the political economy of the regulation of electricity. Other than for a brief period in which electricity distributors were regulated by state commissions, state governments' regulated their electricity commissions through ownership. Politicians approved budgets and prices, trading the ballot-box loss associated with higher prices against the fiscal gain of the higher profits (or in some cases lower losses) associated with higher prices.

The devolution of "policy development" (rule making) to the AEMC, and implementation of the rules to the AER, introduced a political economy particularly in the case of state governments that own their distributors that is inimical to consumers' interests. Through the creation of the AEMC and under it the AER, state governments that owned their distributors could avoid accountability for adverse price outcomes while reaping the financial benefits (higher profits) from such higher prices. Indeed state government energy ministers often pointed to the AER as the reason for much higher prices, while keeping silent on the higher profits that resulted from this.

We suggest this political economy explains in large part much higher regulatory allowances for government owned distributors and, with that, the much higher prices charged by government-owned distributors (and consequently higher profits). Indeed the big gap in terms of prices and efficiency of the government owned distributors in the NEM, compared to their privately owned peers is unusual in comparison to the outcomes in other countries that have a mix of investor and non-investor owned distributors.

Our economic analysis shows that in Australia there is a statistically significant relationship between ownership and regulated asset values, regulated revenues and operating expenditure: government ownership explaining much higher values for all of these. In New Zealand on the other hand where a comparable regulatory approach to that in Australia is applied we do not see the same thing: non-investor owned distributors (typically owned by local customer trusts) seem comparable in terms of prices, regulated assets and regulated revenues to their investor-owned peers. Similarly in the United States, which has a long history of both investor and non-investor owned utilities, the evidence does not suggest significant differences in utility performance, albeit that their regulatory arrangements unlike those in Australia and New Zealand do not subject non-investor owned utilities to commission regulation.[6]

2.3 Why is bifurcation problematic?

In the previous section we concluded that the essential rationale for the AEMC's role in designing regulation was to protect investor interests and through that promote "investment" or as it has effectively turned out, expenditure. Introducing an additional institution, the AEMC, and a system of "rules" constrained by a rule change process protects investor interests by resisting change and evolution, thereby leading to ossification. This subsection explores this argument.

There are different views on the desirability of flexibility and adaptiveness in economic regulation. Stephen Littlechild[7] (2014) suggests regulation should be, like markets, a "rivalrous discovery process". In a recent commentary[8] Dieter Helm presents an alternative view: that the attractive simplicity of price cap regulation has not been

[6] See for example Kwoka, 2005. "The comparative advantage of public ownership: evidence from U.S. electric utilities". Canadian Journal of Economics, Volume 38, No. 2.

[7] Littlechild, March 2014. "RPI-X, competition as a rivalrous discovery process, and customer engagement" Paper prepared for the Conference The British Utility Regulation Model: Beyond Competition and Incentive Regulation? LSE 31 March 2014

[8] Helm, D. "Regulatory credibility and the irresistable urge to meddle" 16 April 2015. available from http://www.dieterhelm.co.uk/node/1403

realised in Britain because, faced with the chance to curry favour with the customers, politicians successfully pressured regulators to intervene. The exception to this - changes to the arrangements for the cost of debt and lengthening regulatory control periods - Helm considers to be justified intervention rather than unhelpful meddling.

Regulatory arrangements for the cost of debt have also been an issue in Australia. A pairwise comparison of how changes to these arrangements were dealt with in Britain and Australia is instructive.

In Britain, reconsideration of the arrangements for cost of debt was one of many issues covered as part of Ofgem's RPI-X@20 review, a review that started in early 2009 and was completed in October 2010. A trawl through the list of document's produced for the RPI-X@20 Review, shows that Ofgem first proposed changes to the calculation of the cost of debt in its June 2010 recommendations. No other documents or reports by Ofgem had been produced on this, although we understand that there were prior bilateral discussions on this between consumer groups (and others) and Ofgem's Board.[9] The recommendations were subsequently implemented in Ofgem's final decision in October 2010.

By contrast, the process in Australia for discussion (and regulatory decision) of the same issue took almost four years at the end of which it still remains unresolved. In August 2011 the Energy Users Rule Change Committee (EURCC) proposed a change to the arrangements of the cost of debt so that it should be based on an historical moving average. This was preceded by several consultations with the AEMC staff (to ensure that the rule change proposal was consistent with the AEMC's rule change guideline) and then AEMC Board. From September 2011 to November 2012 the AEMC conducted its rule change review, consolidating the EURCC's proposed rule changes on debt with the AER's other proposed rule changes. The rule change process administered by the AEMC involved four stages:

---

[9] Rachel Fletcher, Senior Partner, Ofgem, personal communication, 31 May 2011.

1. Initiation: publication of proposals and the AEMC's Issues Paper, two public forums and about 60 submissions from interested parties.
2. Direction paper: publication of AEMC Directions Paper, three consultant reports, four workshops and about another 80 submissions.
3. Draft Report: the publication of AEMC Draft Report, another five consultancy reports and about another 60 submissions.
4. Final Report: Publication of the AEMC's final report (20 documents in total including various legal notices).

While to some degree the number of submissions and reports is exaggerated by the fact that the cost of debt rule change was considered in parallel with rule change proposals by the AER, the cost of debt issues accounted for the greatest number of workshops and consultancy reports.

At the end of this process, the AEMC changed the rules in respect of the cost of debt to be determined by the AER so that the AER was no longer required to apply a specific approach described in the rules, but was now required to have regard to particular information in setting the cost of debt.

With the rule change completed, the AER then embarked on the task of considering how it would set debt costs in regulatory controls. This was part of a process of establishing various regulatory guidelines. The process started at the end of 2012 and consultation on various details was still being undertaken in mid 2014. The process involved Issues Paper, Draft Decision, and Final Decision. In the process of development about another 80 submissions were made, there were about 7 workshops on debt costs, four consultancy reports on aspects of debt costs were commissioned by the AER and several more by other interested parties.

The AER's Final Decision in its Guideline was to allow a rolling average cost of debt measure that would be progressively implemented over 10 years so that by 2025, at the earliest, some network service providers' debt would be based on the rolling average approach specified as the desirable end-point in its Guidelines.

However the Guideline was not binding and in the first set of revenue proposals by the network service providers in New South Wales, they rejected the AER's non-binding

Guideline and instead proposed their own approach, which the AER is required, under the Rules, to consider on its merits.

The AER has now set its Final Decision for the regulated revenues for the distributors in New South Wakes. It has rejected the distributors' proposals and instead applied its guidelines although starting retrospectively to the previous regulatory period, not the current period.

This pairwise comparison rather speaks for itself. In Britain the change was first announced in a final decision before which there had been bilateral discussions with interested parties. It was implemented four months later. In Australia, the same issue was considered by the AEMC for 18 months at the end of which the AER was authorised to consider it. This took another 18 months, at the end of which a non-binding regulatory guideline was established. If implemented, it will take another 10 years for the rolling average approach to be fully implemented. At the first instance that the AER proposed to apply this new approach, the distribution network service providers rejected the guideline and proposed their own approach that the AER was required, under the Rules, to consider on its merits. In its Final Decision for the distributors in New South Wales the AER rejected the businesses proposals and the approach it has decided while broadly consistent with its guideline, has been applied retrospectively, an approach not countenanced in its guideline. The application of its approach retrospectively raises regulated revenues by $1.7bn (around $550 per connection in NSW) from what they otherwise would have been had the AER's revised approach not been applied[10]. It remains to been seen whether market participants or consumers will seek a review of the merits of the AER's decision.

What should have been a fairly straight-forward regulatory matter to resolve, and was resolved in Great Britain in a few months and fully implemented not long after, has taken about four years of deliberation in Australia and will take a further 10 years to

[10] This assumes that borrowing costs do not decline further during the regulatory control period. If they increase from their current record lows the gap between the old approach and revised approach will grow even wider.

implement. Even after such a long period of contemplation, the approach actually adopted, in respect of its retrospective application, does not reflect the outcome of that contemplation. It can be little surprise that if change is so slow and consumes so much effort to bring about and ultimately delivers no benefit (for consumers) that ossification is an inevitable outcome.

2.4 Desirable attributes of effective regulatory arrangements

We have been asked to suggest, briefly, the desirable attributes of effective regulatory arrangements. This is of course a vast topic that is difficult to do justice to in this brief note. However, the experience in Australia where outcomes have obviously been highly unsatisfactory in respect of government-owned firms, suggests three factors seem to be particularly important:

Democratic accountability

Independent regulation of privately-owned firms is valuable in protecting private investors from regulatory expropriation. Investors value this and consumers benefit from it. But accountability for the regulation of government-owned firms should reflect government's democratic right to extract rents from the services it provides, and should ensure transparency and political accountability of that rent extraction.

Consumer participation

Consumers are able to make their wishes known. Success in contestable markets accrues to those that are able to discern consumers' wishes and then meet them. Economic regulation need be no different. Empowerment of consumers in regulatory decision-making, not just consultation, is possible and desirable.

Authority

Effective regulation of private monopolies depends on a regulator that has the authority and flexibility to make decisions under a broadly defined objective. Excessive prescription and specificity undermines the regulator's authority at consumers' expense.

We suggest a regulatory regime that observes these key points is likely to promote efficient, adaptable approaches that deliver outcomes that consumers value and are prepared to pay for.