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Inquiry into Regulatory Institutions and Practices
New Zealand Productivity Commission
PO Box 8036
Wellington 6143

Steven Bailey
Enquiry Director

Dear Steven

Re : Inquiry into Regulatory Institutions and Practices

Please see attached the AECT Submission to the Inquiry into Regulatory Institutions and Practices on Aspects of Regulatory Design.

Yours faithfully

William Cairns
Chairman



Aspects of regulatory design:

A submission to the Productivity Commission

NZIER report to AECT

October 2013

About NZIER

NZIER is a specialist consulting firm that uses applied economic research and analysis to provide a wide range of strategic advice to clients in the public and private sectors, throughout New Zealand and Australia, and further afield.

NZIER is also known for its long-established Quarterly Survey of Business Opinion and Quarterly Predictions.

Our aim is to be the premier centre of applied economic research in New Zealand. We pride ourselves on our reputation for independence and delivering quality analysis in the right form, and at the right time, for our clients. We ensure quality through teamwork on individual projects, critical review at internal seminars, and by peer review at various stages through a project by a senior staff member otherwise not involved in the project.

Each year NZIER devotes resources to undertake and make freely available economic research and thinking aimed at promoting a better understanding of New Zealand's important economic challenges.

NZIER was established in 1958.

Authorship

This report was prepared at NZIER by John Yeabsley.

It was quality approved by Mike Hensen.

1. Introduction

1.1. Key message

Uncertainty about the trade-offs between the objectives set for regulators by legislators and uncertainty about the processes that the regulator may use to make price setting decisions reduce the efficiency of lines company investment decisions and increase the cost of the service provided to consumers by discouraging innovation. We suggest 'system-wide improvements in the operation of regulatory regimes over time' could be achieved by:

- designing regulations and incentivising the regulator to reduce decision-making process uncertainty
- simplify regulatory objectives and where multiple objectives are necessary place them in a hierarchy.

1.2. Context

The Auckland Energy Consumer Trust (AECT) was established in 1993 to ensure that power lines in the area that used to be served by the Auckland Electric Power Board remained in the control of electricity consumers. After various changes, the relevant lines business was named Vector Ltd and its coverage grew to include the North Shore and Waitakere. Vector has also acquired gas and other businesses, and has been floated on the NZX. The AECT retains a controlling interest in Vector, which is subject to regulatory controls on parts of its operations.

The Productivity Commission (PC) is undertaking an enquiry:

*".. to develop recommendations on how to improve the design of new regulatory regimes and make system-wide improvements to the operation of existing regulatory regimes in New Zealand."*¹

An Issues Paper² has been released that discusses a number of aspects of the New Zealand system of regulatory institutions and practices. While there are many matters discussed that the AECT has experience and a view on, two that are of particular interest are, the general questions of the appropriate management of risk in commercial regulation, and the balancing of different objectives in complex situations.

Conscious that the PC will be receiving a variety of submissions on a host of topics, the AECT is concentrating this submission on aspects of the design and implementation challenge that relate to these matters. It makes reference to the experience of the AECT as it has monitored the application of regulation under the Commerce Act 1986.

¹ Terms of reference: Improving the design and operation of regulatory regimes. Para 1

² Productivity Commission (2013) *Regulatory institutions and practices*, PC August.

2. Risk and its effects

Business has to deal with risk. No business is immune, as all economic activity is surrounded by an ever-changing environment, as the agents involved gain information and change their actions. The result can be a significant shift in revenue, or costs, with which the business has to cope.

The possible effects are magnified if the enterprise has limited ability to flex in response to the surprises. A special case is when the business makes inter-temporal commitments that are expensive to undo until their time has run; with a classic example being investments in long-lived assets. Once expenditure occurs it is typically difficult to recover it fully; it is at least in part irreversible.

So unexpected (or more properly, unhedged) risk events and price fluctuations can cause a business to suffer losses that cannot be recovered. If these are serious, there may be knock-on effects for creditors and customers who become caught up in the resultant difficulties.

As the issues paper points out, such risks can be shifted (for instance through insurance against theft). But many of the “markets” (including institutions and counterparties) that would be necessary to accomplish this are non-existent or thin on the ground, and thus the process is expensive (where it can be achieved at all). All commercial operations face this background to their choices about the way they approach their risk environment. Typically they will “self-insure” – in other words, carry the risk consequences - for many of the possible impacts they face.

The particular angle the issues paper focuses on is the way regulation affects the allocation of risk and the discussion looks at the broad principle that the risk should be assigned to those best placed to manage it, through controllability, incentives and prevention. But this guideline needs to be tempered by other broad objectives of good regulatory design, such as minimising total transactions cost.

Regulation *per se* creates various types of uncertainty. A fundamental one is related to regime change³. Once the state has taken an intervention position, it is always possible for it to be revisited in a political context⁴. As price control intervention is likely to be triggered by faster than average price increases, or windfall profits, the intervention puts a ceiling on the outlook for company earnings.

Another important area where risk is brought into play by regulatory interventions is process uncertainty. The existence of a regulator generally means there is situational discretion to be exercised. So at the start – before processes have been determined and their operational details experienced to provide guidance for relatively accurate future expectations - there will be an inevitable degree of unknown factors involved in the process. This in turn has an effect on the level of risk associated with investments by the affected businesses. In theory, it should push the investors

³ No New Zealand electricity regulatory regime has run its full course so far; all have been revised “midstream.” See A Mladenovic (2011) *Network industries: Electricity and telecommunications*, in S Frankel (ed) *Learning from the past, adapting for the future: Regulatory reform in New Zealand*, Lexis Nexis

⁴ Of course it is always possible for a regime to be instituted where there is not one now, but the fact an institution exists puts its functioning and design potentially into the political debate.

toward reducing investments in the short term, as they opt to wait to accumulate better information and thereby lower uncertainty⁵

So from a national interest standpoint, the more that design and incentives on the regulator work to encourage the reduction of process uncertainty, the better the outcome. And, as the results of the investment delays are a social cost, this effect needs to be explicitly examined and incorporated into regulator analysis and decisions.

⁵ This is broadly known as the Pyndick effect, whereby irreversibility means investment delay is a consequence of increased uncertainty. See AK Dixit and RS Pyndick (1994) *Investment under uncertainty* Princeton University Press.

3. Multiple objective balancing

As already noted the creation of a regulator generally indicates that the situation to be addressed is not amenable to simple rule setting. It requires the exercise of situational assessment and judgement, usually in pursuit of defined set of goals. Typically this means aspects of the task are complicated.

These aspects might include the technical features of the matter – as occurs in the regulation of electrical transmission. They also might include the variety of types and settings of participants whose behaviour is to be modified by the regulatory function.

But the wider efficiency of the process demands a degree of transparency so that participants and observers can monitor and assess the discretionary process. Their confidence and low-cost willing engagement is assisted, if not demanding of, an appreciation of the way the systems and implementation tie back to the announced goals.

One area where this is important is when there are multiple aims to be balanced by the regulator. It is obviously going to be demanding, as it relates to the rationale for having a regulator rather than just a rule enforced by an all-purpose mechanism such as the law. But the challenge is still to create an implementation framework that is sufficiently well-designed to allow the adherence of the interested parties without elaborate and high cost advice or analysis.

In particular, to do this effectively without repeated recourse to the definitive role of the courts (under judicial review) strongly suggests a need for simplicity and clarity in aims.

In other words, to be able to adequately monitor the balancing of objectives it is always easier when there are fewer objectives to be taken into account. Indeed, two is a good number.

Aside from the obvious ease of understanding, one reason for this is that with two objectives there is only one trade-off [a v b]. With three, there are three pairwise matches [a v b, b v c, a v c]. And such trade-offs are complex social judgements, in which the elements typically change at different rates. They frequently involve hard-to-establish data and values, and are unlikely to be social constants; so they may have different values depending on scale and incidence.

A case in point is the Commerce Act Part 4.

As cited below there are four complicated purposes to be balanced. The difficulty of this task is illustrated by the way that the Commerce Commission has yet to work out how the incentives to innovate are to be woven into the regulatory structure.

Commerce Act 1986 Part IV

52A Purpose of Part

(1) The purpose of this Part is to promote the long-term benefit of consumers in markets referred to in section 52 by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services—

- (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
- (b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and
- (c) share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and
- (d) are limited in their ability to extract excessive profits.

4. Conclusions

AECT has focused this submission on two the general questions of the appropriate the design and implementation challenge for regulation:

- appropriate management of risk in commercial regulation,
- balancing of different objectives in complex situations.

Responses to these challenges need to be built into both the design of regulations and the expectations of how the regulator applies its discretion.

4.1. Problem definition

Lines companies make a series of investments in long-lived assets to provide network services. As these investments are very difficult to unwind, the success of the business making the investment decisions is dependent on correctly forecasting long-term demand and consumer willingness to pay for the service. The natural monopoly characteristics of network businesses make them candidates for price regulation to deliver 'competitive outcomes'. However the complexity of network businesses makes it difficult to estimate what competitive pricing for service should be now and in future or to estimate level of network investment that would occur at this level of pricing – working out the details of implementing regulation is a difficult problem with material but often hidden or latent consequences.

4.2. Risk management

Delegation by legislators to a regulator the discretion to develop and then apply various methodologies to estimate competitive prices (and then 'direct' rather than incentivise lines companies to deliver a particular standard of service at these prices):

- does not remove the difficulty of estimating the competitive outcome
- does add uncertainty to the investment and innovation decisions of lines companies particularly if the price reset period is short relative to the live of the network assets.

Designing regulations and incentivising the regulator to reduce process uncertainty, improves the outcome from regulation by ensuring those making investment decisions do not have to consider artificial or induced uncertainty.

4.3. Multiple objectives

Requiring a regulator to deliver multiple objectives creates another stream of uncertainty by requiring businesses to second-guess how the regulator will make complex trade-offs between objectives in one pricing round or re-interprets these trade-offs between pricing rounds.

Simplicity and clarity of objectives should be included in the design of the regulation and applied as a test of the quality of regulation. The Commerce Act Part 4 does not rate well on this test requiring four complicated purposes to be balanced.