

Distribution network regulation in Australia



**WHERE HAVE WE COME FROM
AND WHERE SHOULD WE GO?**

DR JOHN TAMBLYN

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Overview of this presentation



- Principles of incentive regulation of monopolies
- Price and revenue regulation in practice
- Early Victorian network regulation experience
- The early policy and regulatory debates
- National institutions, rules and regulation
- Current regulatory issues and debates
- What reform options should be considered?
- Can consumer interests be given greater weight

Why regulate natural monopoly services?



- Natural monopoly services, such as energy distribution networks, can be supplied at lower cost by a single provider.
- However, in the absence of regulation, monopoly providers can restrict supply and raise prices without losing business. Absence of competition can also result in inefficient and high cost service delivery.
- Regulation seeks to maintain the efficiency of natural monopoly supply while minimising the potential inefficiencies arising from the monopolist's market power.

The theory of incentive regulation



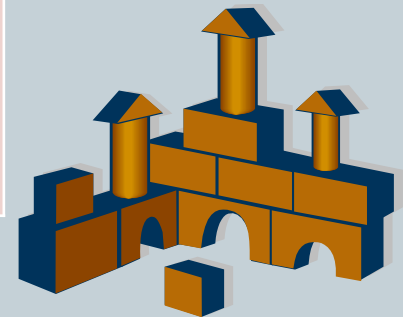
- CPI – X incentive regulation was first developed by British economist Stephen Littlechild for the regulation of telecommunications in Britain
- It is based on a simple idea that prices should not increase by more than consumer price index less a factor – i.e. $\text{CPI} - X\%$, where X was a number to be negotiated.
- The model was seen as easier to understand and implement than the alternative rate of return regulation that seemed to encourage excessive investment in the regulated asset base (RAB).

Australia – The Building blocks approach



- CPI – X regulation in Australia is applied using the building blocks approach.

Service level required	Revenue required	Price control
Demand forecast Reliability/quality targets Service incentives	OPEX Return on RAB (WACC) Depreciation of RAB Efficiency incentives	CPI – X price cap on average price changes Annual price change limits



Complexity of the building blocks model



- In practice, the building block model is much more complex than the theoretical CPI – X approach
- Regulated businesses submit highly detail proposals with a wide range of variables.
- It has been estimated that in Australia, between 1999 and 2010, regulatory decision documents doubled in length every 5-6 years.



Early Victorian network regulation experience



- As part of the reform of Victoria's energy industry in the 1990s, an independent regulator, the Regulator General, was established to regulate prices.
- The regulatory framework established was high level and non-prescriptive with wide discretion given to the regulator.
- The initial outcome of this regulatory regime was significant reduction in revenues for the regulated businesses and in costs and prices for consumers.

Early Victorian experience continued



- The 2000 Victorian distribution determination was challenged in both merits and judicial reviews.
- The distribution businesses achieved some success but not substantial dollars in the merits review process.
 - The judicial review was on the grounds that regulator used cost of service rather than incentive regulation. The appeal was unsuccessful.
 - The discretion granted to the regulator in law made the decision difficult to challenge.



Early Victorian experience continued



- The point is that wider regulatory discretion in law reduces the matters that can be put to judicial review and, arguably, merits review.
- However, there is the risk of regulatory failure and this approach places substantial (unaccountable?) power with the regulator.



Early policy and regulatory debates



- The Victorian experience led to debates on the approach to regulation. There was concern that the regulation was:
 - reducing returns below businesses' cost of capital;
 - increasing regulatory risk due to uncertainty about future decisions; and
 - discouraging investment in long lived infrastructure assets to maintain reliability.
- A number of reviews, including the Parer Review, examined these issues.
- These provided a forum for a wide-ranging debate on the most appropriate regulatory structure.

National Institutions, Rules and Regulations



- In 2003 COAG agreed to move energy policy, rule making and regulation into a national legal framework overseen by national institutions.
- The Australian Energy Market Commission (AEMC) developed the national rules for regulation of transmission revenues which were broadly reflected in the distribution rules developed by the Ministerial Council on Energy (MCE).
- The result was a more prescriptive regulatory regime than in the Victorian example previously cited.

National Institutions, Rules and Regulations



Did the AEMC get the balance right between regulatory discretion and prescription of regulatory decision rules, methods and processes?



Regulatory outcomes under the new rules



- Evidence of escalation of networks costs and prices

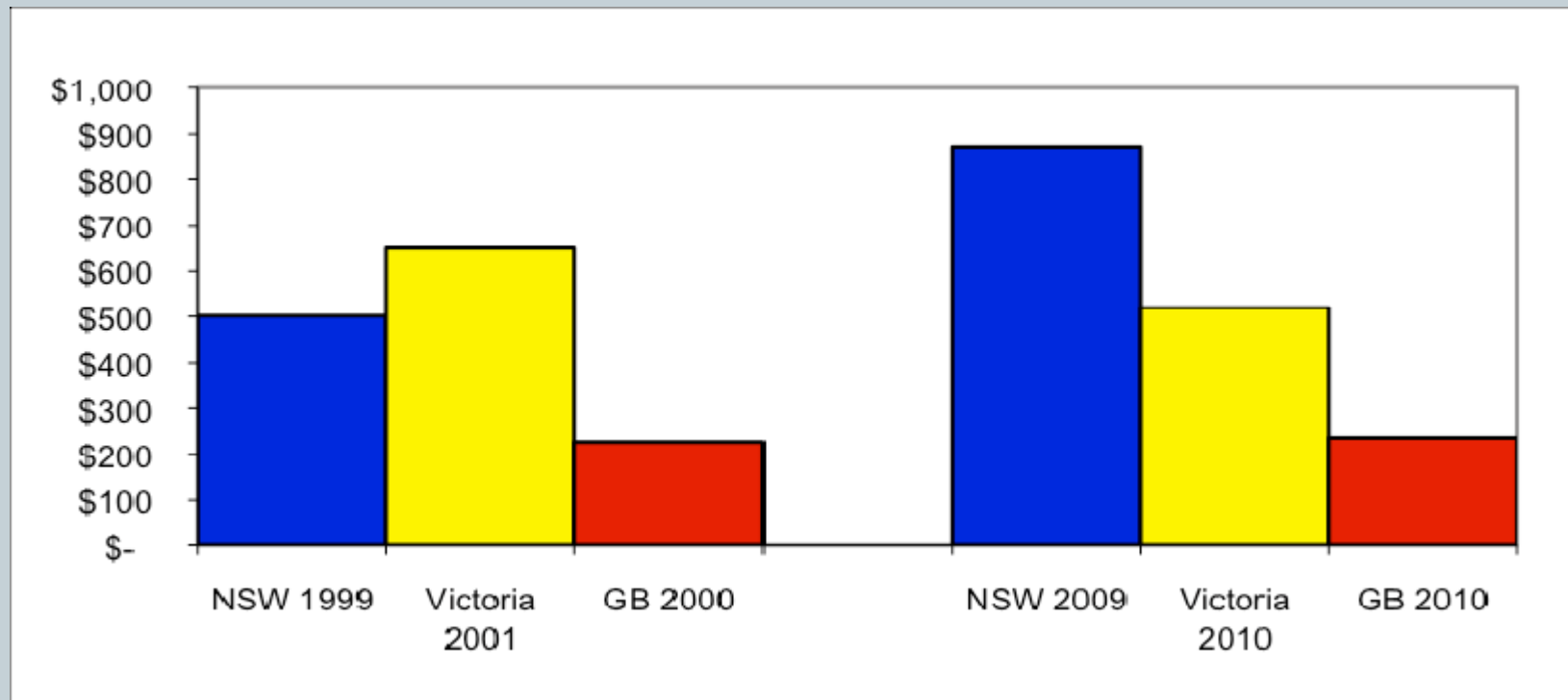
Figure 13: Real capital expenditure per customer



Regulatory outcomes under the new rules continued



Annual revenue per customer in NSW, Victoria and GB (2008 AUD)



Source Mountain B and Littlechild SC, Comparing electricity distribution network revenues and costs in New South Wales, Great Britain and Victoria, Energy Policy, 2010, p. 10

Regulatory outcomes continued



- The reasons given for the cost escalations were:
 - the need to replace old assets;
 - network investment needed to meet demand (particularly peak) growth;
 - CAPEX to meet national reliability standards; and
 - consequences of merits review decisions.
- It is notable that merits review appeals are now a routine step in the process with distribution businesses in effect having a one way bet to increase the revenue allowance determined by the Australian Energy Regulator (AER)



Regulatory outcomes?



How far were recent cost/price increases genuinely due to the identified cost drivers and how far were they amplified by features of the current regulatory and merits review rules and processes?



Current regulatory issues and debates



- Network pricing reviews have become costly, information intensive and difficult for non specialists to engage with.
- There are significant questions around the effectiveness of network regulation today and whether there are options for further reform.



Issues for consideration



- Are the rules too prescriptive and rigid?
- Does the propose respond decision process place undue weight on business proposals and reduce the decision making discretion of the regulator?
- Does the building block approach encourage excessive investment in the RAB?
- Has the focus on WACC estimation become counterproductive?
- Are reliability standards driving network investments that are not valued by users?
- Are there shortcomings in the appeals process?

Reform options: Improve building blocks



- Retain the building blocks CPI – X approach but reform rules and processes.
- Propose – respond process becomes a propose – consult – decide process.
- Reduce the degree of prescription in the rules but provide guidance on the regulator’s discretion.
- Develop options for reducing the myopic emphasis on the WACC.

Reform options: Alternatives to the building blocks



- Consider alternatives to building blocks methodology, in particular:
 - Total Factor Productivity (TFP) approach to CPI – X where the X is determined by estimated industry-wide TFP. This is similar to the original Littlechild model but there are implementation complexities.



- Develop a workable negotiate-arbitrate model on the lines proposed by Littlechild and Biggar. This would require detailed negotiations between suppliers and users of the regulated service with the regulator acting as the arbitrator.

Reform options: The merits review process



- A less prescriptive regulatory regime with more discretion on the part of the regulator can reduce the scope for merits appeal and judicial review.
- Conversely, a more prescriptive regime would permit more matters to be heard in judicial review and there would be a case for eliminating merits reviews entirely.
- If merits review is retained, consider limiting the Australian Competition Tribunal's capacity to vary a decision to matters that are sufficiently material to undermine the determination as a whole.
- If a negotiate/arbitrate model is to be developed, merits review would be eliminated as the regulator would be the final arbiter of issues not agreed through negotiation.

Can consumers participate effectively?



- Consumers interests are under represented in both policy and regulatory forums and decisions
- Reasons could include:
 - Complex rules, methods and processes that are difficult to engage with?
 - Rules, regulators and decisions giving greater weight to supply side issues?
 - Fragmented and diverse user groups have difficulty in coordinating and engaging at the national level?

Improving consumer influence



- Options to improve consumer access include:
 - reform of rules and processes to improve accessibility;
 - provision of guidance to regulators in law and rules requiring specific consideration of consumer impacts in decision making;
 - specific requirements and processes for the regulator to engage with consumer representatives; and
 - adopt a negotiate/arbitrate model, assuming the necessary consumer capacity is in place.



Improving consumer influence: A peak body for consumers



- A further option for greater consumer influence is the formation of a national peak consumer organisation (energy only or wider scope?)
- Such a peak body would need to bring together diverse perspectives and have authority to negotiate on behalf of consumers on strategic national policy and regulatory issues.
- Such a peak body will need the necessary resourcing and expertise to engage on complex issues as well as to communicate with and listen to the concerns of grass roots organisations.

Questions

