



**NEW ZEALAND INSTITUTE FOR THE STUDY  
OF COMPETITION AND REGULATION INC.**

# **OWNERSHIP VS. REGULATION IN ELECTRICITY REFORM: THE ROLE OF GOVERNANCE**

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## **CORPORATE MEMBERS**

Contact Energy Ltd

Fonterra Co-operative  
Dairy Group Limited

Meridian Energy Ltd

New Zealand Post Ltd

NGC

Powerco

Telecom Corporation  
of New Zealand Ltd

Transpower New Zealand Ltd

Vector Ltd

Victoria University of Wellington

Westpac Institutional Bank

# SYLISED ELECTRICITY REFORM

## Encourage competition, at least in generation and energy retailing

- Unbundle generation and transmission
- Break monopolies in generation
- Unbundle or ring-fence distribution
- Distributed generation, merchant transmission, . . . ?

## Put up with monopolies in transmission and local distribution

- Allow non-government ownership – efficiencies, sale proceeds
- Rein in costs of monopoly using regulation – proxy competition



# BUT REGULATION IS COSTLY

## Post-Nirvana view of government and regulators

- Imperfect objectives
  - Political process, capture
- Imperfect models
  - Practical/desirable vs. optimal
- Imperfect information
- Imperfect practice
  - Discretion + lack of commitment
- Imperfect incentives

*The disease can be bad, but what about the cure?*



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# BUT REGULATION IS COSTLY – Cont'd

## Direct costs are significant and growing, e.g.

- Regulator's own costs of administration
- Regulated companies' costs of compliance
- Company and customer costs of participation

## Indirect costs can be even more telling, e.g.

- Distorted costs, prices, quantity, quality, financial risks, maintenance, investment, . . .
- Unintended temporal and inter-temporal redistributions

*Sooner or later customers bear these costs*



# THE PROBLEM IS GOVERNANCE

## Tirole (2001) definition

“the design of institutions that induce or force management to internalize the welfare of stakeholders”

**If the goal is protecting customers of natural monopolies from abuse, consider aligning the interests of customers and managers using**

- Regulation → can be effective, but costly
- Market contracting → effective for larger customers, but . . .
- Ownership → efficiency and market power implications

*Which combination of these governance tools is best?*



# OWNERSHIP AS A SOLUTION

**Extending Hansmann (*Ownership of Enterprise*, 1996) – ownership efficiently falls to those firm patrons facing the least combined costs of:**

- Regulation
- Market contracting – including market power abuse
- Ownership, including
  - Agency costs – Jensen and Meckling (1976), . . .
  - Costs of collective decision making

*If ownership is costly but can mitigate given market power, then trade ownership costs against regulation costs*



# CUSTOMER OWNERSHIP IN THEORY

## **Customer ownership, in particular, can mitigate market power**

- Direct participation in the governance process
- Choice of objective function – non-profit/multiple vs. for-profit
  - Governance, efficiency and regulatory-sensitivity tradeoffs
- Share in excess returns from market power → “monopoly hedge”

## **Should work well in distribution (and transmission) if**

- Business risks are low, and assets highly bankable
- Services and customers homogeneous
- Technology and customer base stable



# CUSTOMER OWNERSHIP IN PRACTICE

## Customer ownership of distribution naturally arises

- Widespread US rural non-profit customer cooperatives + G&Ts
  - Majority not rate regulated, including some G&Ts
- New Zealand customer trusts owning for-profit distribution
  - Initially under “light-handed” regulation
  - Now face CPI-X despite falling real prices → overkill
- Municipal distribution ownership – more diffuse example

## Problems of customer heterogeneity and transience

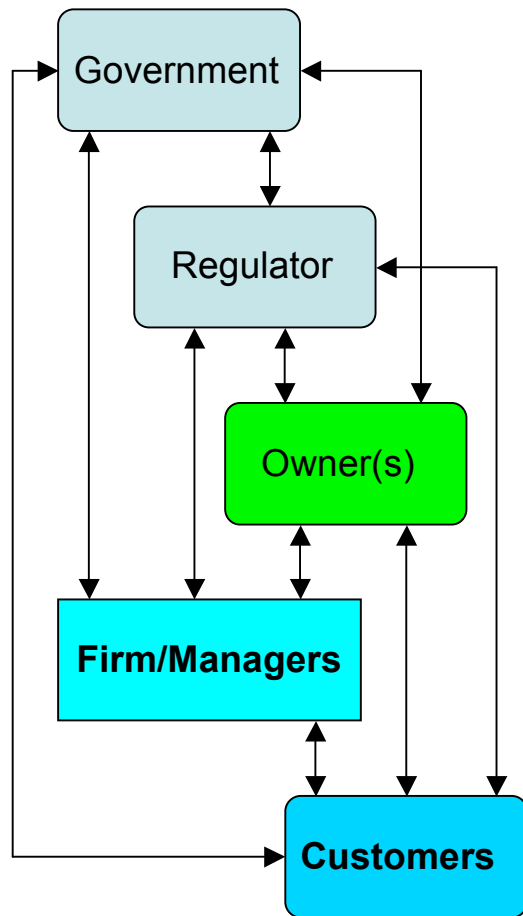
- More likely in large, diverse and dynamic communities
- Can remain less a problem than regulation costs





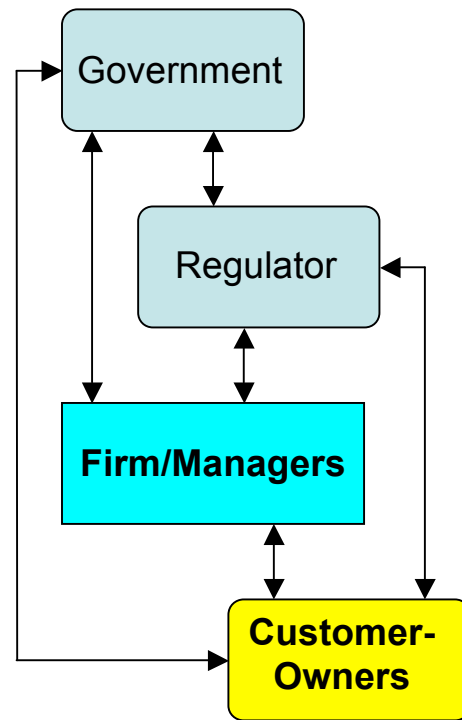
**State/Investor Ownership  
With Regulation**

**(a)**



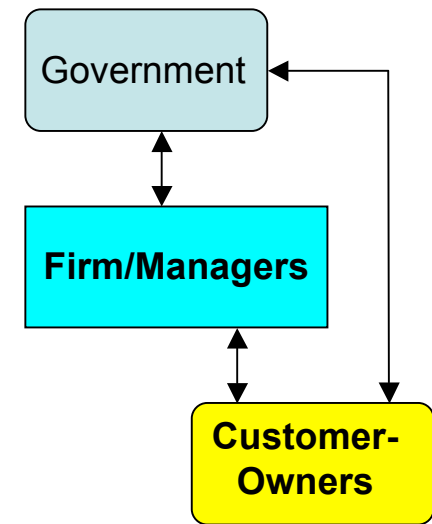
**Customer Ownership  
With Regulation**

**(b)**



**Customer Ownership  
Without Regulation**

**(c)**



Goal = alignment of firm/manager and customer interests

Arrow = governance conflict with associated costs



# ASSESSING THE ALTERNATIVES

## **Unregulated customer ownership should surpass state ownership of distribution (and transmission)**

- Equally low market power costs
- Relatively lower ownership costs
- Likely lower costs of regulation

## **Unclear whether regulated investor ownership beats state ownership (cf Laffont and Tirole (1991))**

- Low ownership costs but high market power and regulation costs
- Versus: high ownership costs but lower market power and regulation costs
- Consistent with mixed empirical results? (Willner (2001) survey)



# ASSESSING THE ALTERNATIVES – Cont'd

## Regulation under customer ownership is redundant

- Deadweight regulation costs
- Redundant protection against market power
- Added bankruptcy risk and investment distortion

## Unregulated investor ownership might be as good as unregulated customer ownership

- Market power costs are higher, but lower ownership costs might tip the balance
- Likely less political appeal than customer ownership (!)



# POLICY IMPLICATIONS

## Glachant (2002)

“public regulation is not better in principle than private negotiation for dealing with market failure”

“some externalities and asset specificities can be managed within private clubs of partners or users, limiting the scope of public regulatory bodies”

### ***Avoid one-size-fits-all regulation***

- *Exploit customer ownership as a solution to market power*
- *Offer regulatory “menus” conditioned on ownership*
- *Regulate customer-owned monopolies in electricity only where the need clearly exceeds the costs*

