



Regulating Pipeline Businesses: Costs and Benefits of Control

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Presentation Overview

Review of the economic problem the Commission is considering

Briefly review organisational behaviour under “incentive-based” regulation

Reflect on the competition evidence

A general appraisal of the building blocks approach

Review the framework for assessing benefits and costs of control

The Economic Problem

The need to regulate monopolies was based on the traditional notion of “market failure:”

- Prices above costs
- Output less than the social optimum

Increasingly economists and policy-makers have recognised that costs of government/regulatory failure can exceed the benefits of regulation

The key consideration for the Commission is economic efficiency/performance: the long-term interests of acquirers will be aligned with this

A cautious approach is sensible. The Commission should find very solid evidence of serious problems before recommending control, particularly given the idiosyncratic features of gas pipelines

Distinguishing Features of Gas Pipelines in New Zealand

Long-lived and sunk

Derived demand

Multi-part tariffs

Compared to electricity:

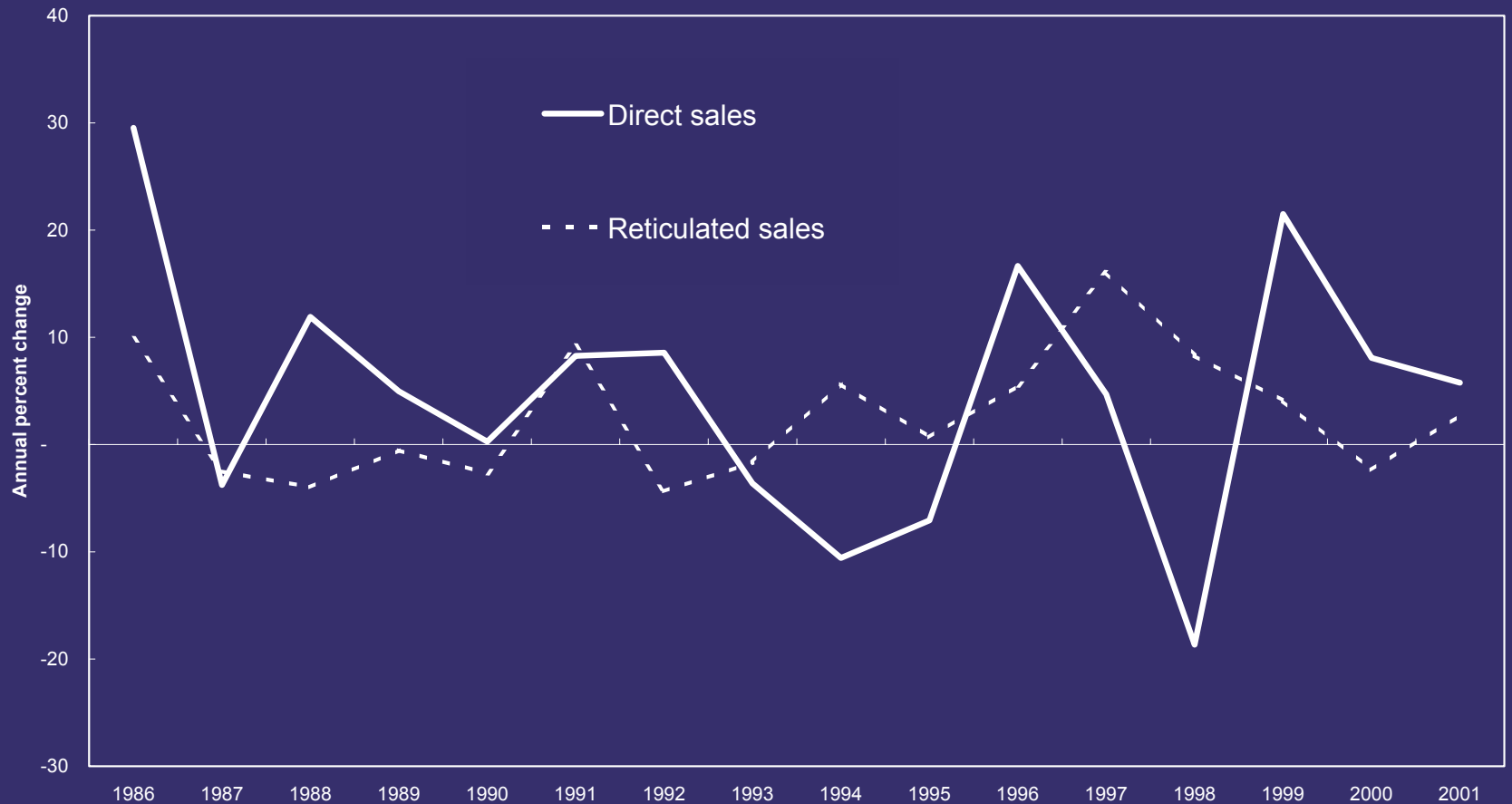
- Gas is a discretionary fuel
- Networks are not comprehensive
- No (implied) universal service requirement
- Fewer externality issues

Expected gas prices increases and uncertainty as Maui declines

Further investment likely

Demand for gas

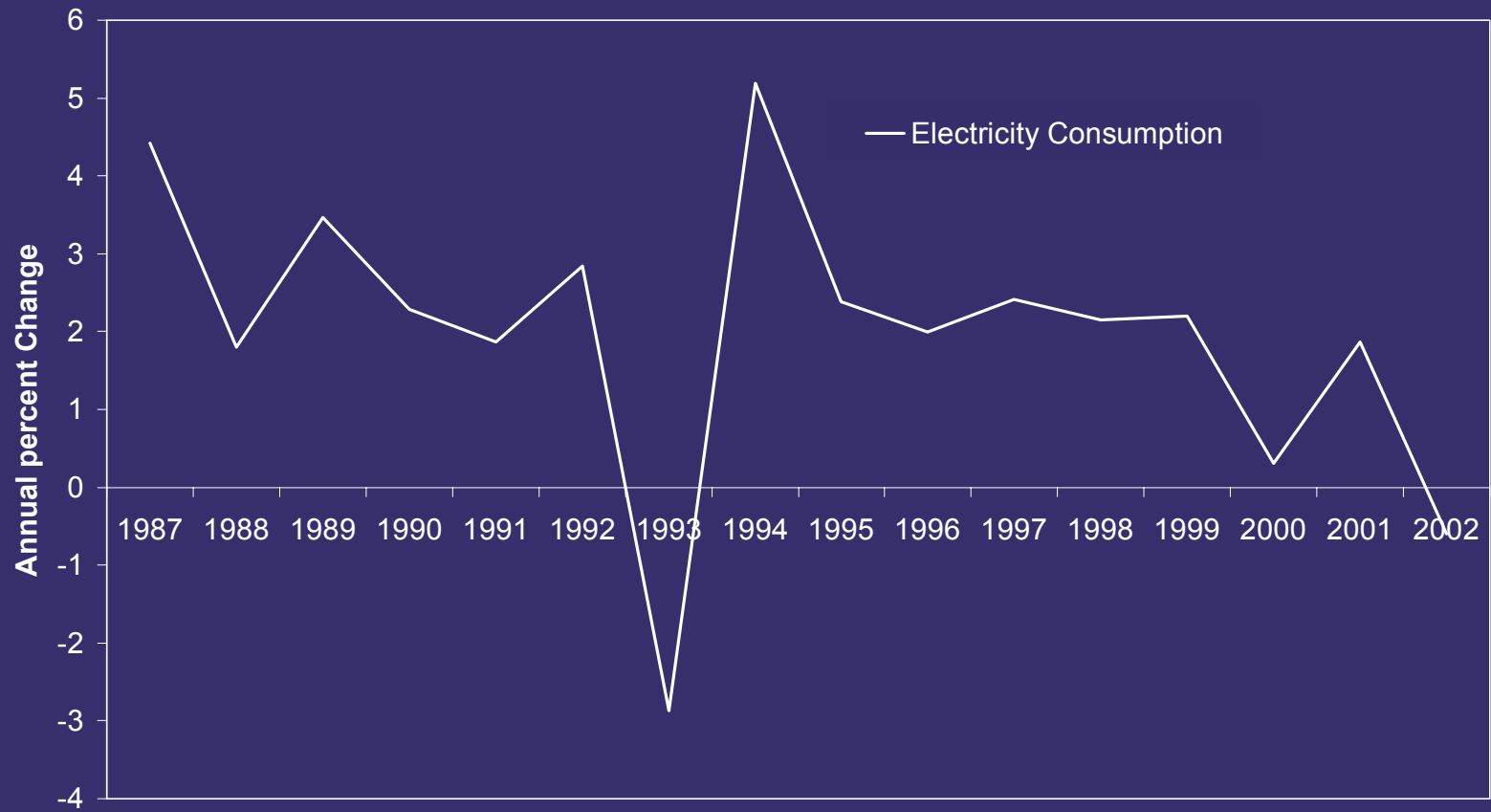
(Annual Percent Change)



Source: MED (2003) Energy Data File

Contrast: Demand for Electricity

(Annual Percent Change)



Source: MED (2003) Energy Data File

Organisational Performance Under Regulation

Very limited existing empirical evidence of the benefits of light-handed regulation relative to more heavy handed forms of control

Our report develops a theory of organisational differences between light-handed and more heavy-handed forms of control.

The key points are:

- Regulated business becomes regulator focused rather than customer focused
- Diminished incentives to make productive efficiency gains in years immediately prior to regulatory reset
- Investment will be delayed
- Reduced incentive to improve quality in response to consumer demands since financial returns cannot be earned on quality improvements
- Regulator must set quality standards, but is not well-equipped or incentivised to understand customer preferences and perform this role

Competition Analysis

Key points drawn out in report:

- Evidence points to a need to revisit inter-fuel competition precedents:
 - Significant percentage increases in gas wholesale prices
 - Inability to secure long-term contracts for gas gives other fuels a significant competitive advantage
 - Customers are already planning to switch to alternative fuels (electricity generation, forestry, etc etc)
- Competition for the market
- A need to consider competitive constraints in a collective sense
 - Bypass
 - Alternative fuels
 - Bilateral negotiations and long-term contracting (a generator would never enter without a long-term transmission contract, it can choose where to locate on the transmission network)

Building Blocks Analysis

Scope of inquiry

- Define the costs of the stand-alone pipeline business
 - ACAM the appropriate method for allocating costs between contestable and non-contestable businesses

A number of difficult application issues in using a building blocks approach

- A backward looking analysis to determine the “efficient costs” of the business, but there are numerous reasons why actual revenues would be different to building blocks costs:
 - Demand or costs can turn out to be different from forecast (a real likelihood given volatility in demand)
 - Hurdle rates exceed WACC: allowing for stranding
 - The Commission is making a comparison over less than the lifetime of the assets

Benchmarking would provide a check on the building blocks exercise

Building Blocks Analysis

Continued

Overall, care is needed in interpreting the results of a building blocks approach

Even under incentive-based regulation (and indeed in competitive markets) there can be periods of economic profits that are conjoint with dynamic efficiency

Benefits and Costs Test

Benefits of control:

- Allocative efficiency?
 - Multi-part tariffs would suggest that control would not significantly improve allocative efficiency
 - Quality not provided at a level that consumers would be willing to pay for under heavy handed control

Control unlikely to improve productive and dynamic efficiency in pipeline sector as businesses become regulator-focused; in fact, the dynamic efficiency costs are likely to be significant.

Any benefits will require a finding of significant economic profits and only consist of short term allocative efficiency and short term acquirers' interest

Care is needed to ensure that there is no double-counting of welfare impacts

Benefits and Costs Test

Continued

Costs of control:

- Strongly disagree with the “scaling benefits of control” approach to calculate net benefit: to be meaningful benefits and costs must be estimated directly
- Attempt to directly estimate allocative, productive and dynamic efficiency losses
- Not an easy task, but likely to give the Commission a better “feel” for the
 - Difficulties of control,
 - potential costs of control, and
 - allows for meaningful debate on the issues

Regulatory Certainty

A potential issue has been raised with light-handed regulation: pipeline businesses could capture rents from the production sector and reduce incentives for exploration

But the economic reality is that pipeline businesses are dependent on an active exploration sector

- Already suffering from customer uncertainty about gas availability and price
- NGC's gas gathering project aims to facilitate activity in the exploration sector

Pipeline businesses hold significant sunk assets, so have all the risks relative to the explorers who can take their equipment and drill elsewhere

Concluding comments

The key consideration for the Commission is economic efficiency/performance; the long-term interests of acquirers will be aligned with this

The current environment for gas pipeline businesses is very uncertain

But at the same time investment is required

Great care is needed in assessing the efficiency of an increased level of regulation