

# NZ ELECTRICITY SECTOR

LUNCH-TIME DISCUSSION

*[for a group of financial services parties]*

PRESENTED BY TONY BALDWIN

[www.baldwin.org.nz](http://www.baldwin.org.nz)

25 NOVEMBER 2003

# CAVEAT

This presentation was based on the Electricity and Gas Industry Bill as it was introduced to Parliament.

The Bill was changed subsequent to this presentation.

Some comments below in relation to governmental roles therefore need to be refined to reflect the regulatory environment now set out in the relevant Act

# PURPOSE

- Overview of key trends

Slides are prompts for discussion

- Primary focus on regulatory environment

- Usual caveats apply

Only public information sources; no representations as to accuracy; my views at this date; information and views not to be relied on in any business or transaction; no responsibility and no right of action against me

# SECTOR CHARACTERISTICS

- Nature of product:
  - Homogenous commodity product
  - Relatively inelastic demand
  - Special physical imperatives (limits to storage + need for continuous system balance)
- Oligopoly in generation
  - Dominant Govt ownership - weak commercial disciplines
  - Potential Govt influence over new investment
  - Susceptible to concentrations of market power
- Monopoly in lines
  - Nearly 100% central + local Govt/community trust ownership – weak commercial disciplines
  - Uncertainty in pricing methodology + level
  - Significant constraint issues
  - New investment uncertainty
- Regional oligopolies in retail
  - Caused by input/off-take pricing differentials due to TX constraints + losses
  - Generators dominant
  - Dominant Govt ownership – weak commercial disciplines

# SECTOR CHARACTERISTICS *(cont'd)*

- Threat of new entry:
  - In practice, relatively low probability of new entry in retail + generation due to:
    - Limited availability of hedges
    - Dominance of incumbents, particularly SOEs
    - Costs of new meters to enable differentiating products
    - Low demand for new risk management products
    - Regulatory uncertainty – deter new entrants
  - Key exception: return of distribution companies to generation + retail
    - reserve generation + 25MW or 10% of max demand
- Pricing mechanisms:
  - Spot prices
    - robust external market, hydrology key driver, implicit political cap
  - Hedge prices
    - weak illiquid market, immature approach to risk, implicit political cap (via SOEs)
  - Now EC
    - Will 'govern' both

# SECTOR CHARACTERISTICS *(cont'd)*

- Regulatory uncertainty:
  - EC policy + direction
  - Carbon tax
  - RMA costs
  - Government approach to SOE new investment
  - Scope for increased regulatory control
- Sector in transition between public service + private good
  - Impact on allocation + management of risk

# ELECTRICITY COMMISSION

- 'Accidental' birth
  - Unintended, poorly conceived, legislative 'patch up' now
- Extremely wide powers
  - To regulate nearly all aspects of industry
  - Potential for Minister to expand powers + functions
- Confused brief
  - Mix of economic, environmental + social objectives
  - Serious 'mish-mash' of policy frameworks
  - No clear priorities

# ELECTRICITY COMMISSION *(cont'd)*

- **Conflict of roles**

- Policy maker (*adviser to Government*)
- Revenue raiser (*levy powers*)
- Market regulator (*across all parts*)
- Market participant (*seller of dry year power*)
- SOE governor (*controls Transpower's capital investment, cost allocation + pricing methodology*)
- Price controller (*transmission + distribution from Dec 2005*)

*(See helpful recent paper by Graham Scott on EC's powers and functions)*

- **Limited independence**

- Minister can tell EC what to do
- Minister can choose whether to implement proposed regulation or not
- Tension likely

- **Potential for investment inefficiencies**

- Centrally planned transmission investment vs contestable generation investment
- EC recommending rationalisation of SOE investment proposals to Govt
- 'Murky' boundary between reserve and non-reserve generation
- Reserve scheme likely to be highly inefficient compared to alternatives



# FRAMEWORK

Impacts on shareholder value over time, so focus on key NPV drivers: prices, costs, volume and risks

# PRICE

- Assume workable competition, therefore trend to LRMC
  - However note medium-term risk of average pricing
- Main drivers/factors:
  - Demand relative to supply (*approaching capacity limits*)
  - EC reserve generation (*minimum reserve levels set by EC*)
  - Future availability + cost of fuel (*gas, coal, hydro, wind*)
  - Carbon tax
  - RMA costs
  - WAAC (*SOEs 'soft' over time*)
  - Govt influence on SOE contract offer prices
  - Govt/EC influence on reserve price in any mandatory hedge programme
  - EC price cap (*likely to 'bend'*)
  - Demand for risk management products (*historically weak*)
- Expected path:
  - Wholesale price path: from 6.4c/kWh (2005) to 7c/kWh (2010) (*MED*)
  - Historic retail price path (therefore includes changes in transmission, distribution + retail components): 12.6% over 5 years (1999 – 2003) (*MED*)

# COSTS

- Likely industry cost increases from *(likely to be passed through to consumers)*:
  - Transmission
    - depending on EC mandate of proposed upgrade + pricing methodology
  - Distribution
    - depending on RPI-X cap + Commission's quality requirements
  - Carbon tax
    - LNG competes at \$15/tCO<sub>2</sub>
  - Wholesale levy
    - From EC
  - Regulatory uncertainty
    - If open for too long, could increase industry beta

# VOLUME

- Key drivers:
  - GDP growth:
    - Projections look good for now, but vulnerable
  - Contact's market share depends on:
    - Strategy for growth
    - Appetite for risk – degree of hedging using retail cover, and exposure to spot
    - Impact of Govt role on SOEs' new generation investment decisions

# CONCLUSION

- Regulatory + policy direction unclear
  - *Option 1*: Trend toward central planning of new investment?
    - Leads to more control over gas supply + gas rules
    - Effective integration of SOEs overtime
  - *Option 2*: Trend toward entrenching status quo?
    - Series of urgent ad hoc projects leads to inadvertent entrenchment without clear medium term overall vision or framework
  - *Option 3*: Trend toward more competition and decentralisation?
    - Requires greater transfer of pricing risk to customers
    - Requires better commercial disciplines on SOEs
    - Runs counter to inherent incentives created by EC's existence
- Wrong problem-definition
  - Govt wants to avoid high prices + price volatility
  - However these risks are inherent (*hydrology + future fuel costs*) – not the real problem
  - Real problem is how risks are managed efficiently
  - Govt has imposed a set of costly risk-management mechanisms
  - Crux: confused and undermined incentives for efficient outcomes