

# AESIEAP CEO Conference

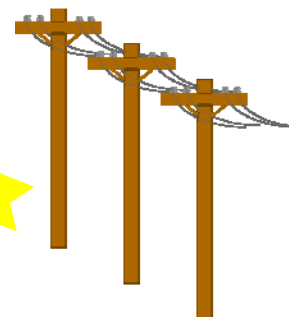
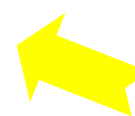
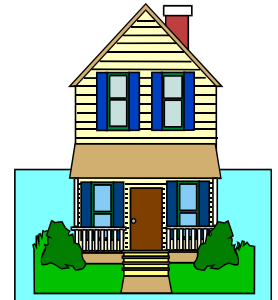
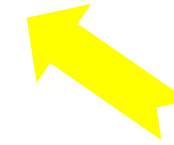
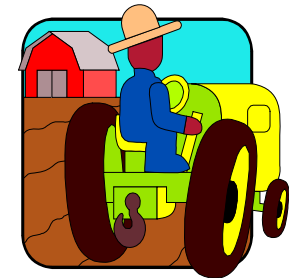
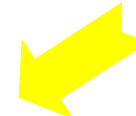
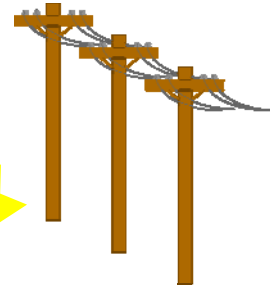
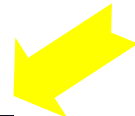
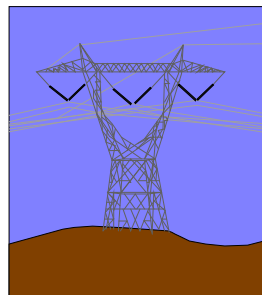
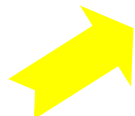
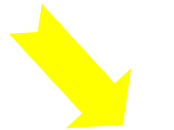
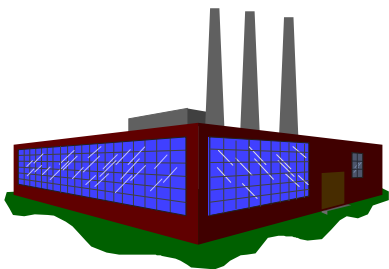
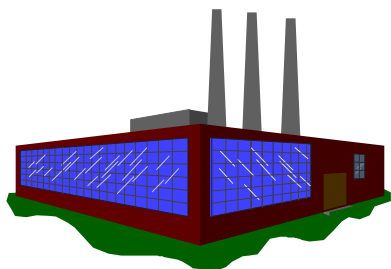
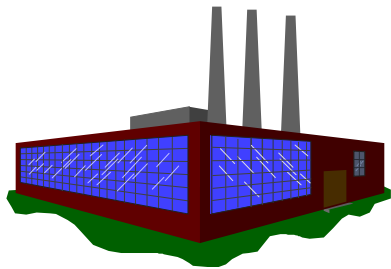
## Session 1

### Innovation Impacts from Electricity Deregulation 'Lessons Learned from a Decade of Reform'

10-12 October, 2007

Presented by: Murray Jackson  
Chief Executive, Genesis Energy  
New Zealand

# Disaggregation and Deregulation



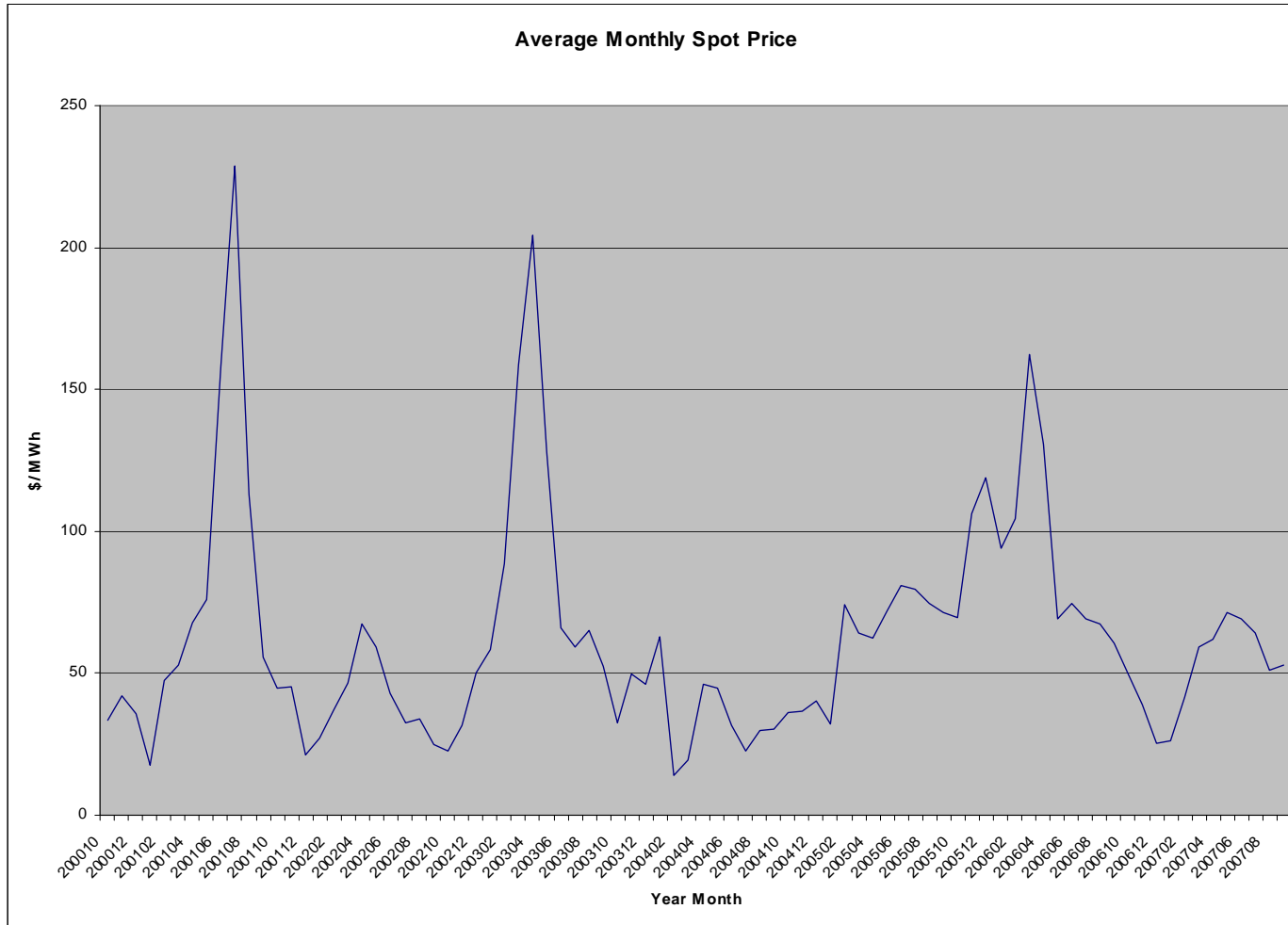
# Degrees of Separation in Electricity Supply

Jurisdiction	Generation	Transmission	Distribution	Retail
Victoria	IO	IO	IO	IO
New South Wales	SO	SO	SO	SO
Queensland	SO	SO	SO	IO
South Australia	IO	IO	IO	IO
West Australia	SO/IO	SO	SO	SO
Tasmania	SO	SO	SO	SO
New Zealand	SO/IO	SO	SO	SO/IO

SO  
IO

State Owned  
Investor Owned

# Wholesale Market Spot Price



# Regulatory Issues Faced by Wholesale Markets

- Gross v net pool – impact on value
- Forward market price signal
- Reserve energy market
- Environmental constraints

# Regulation Issues Faced by Network Providers

- Appropriate rate of return criteria
- Cross subsidisation between regions
- Investment in distributed generation
- Resource consents

# Upstream Fuel Risk

- Utility wants competitive fuel products
- Forward contract with varying maturity dates
- Diversified source of supply
- Contingency plan in place

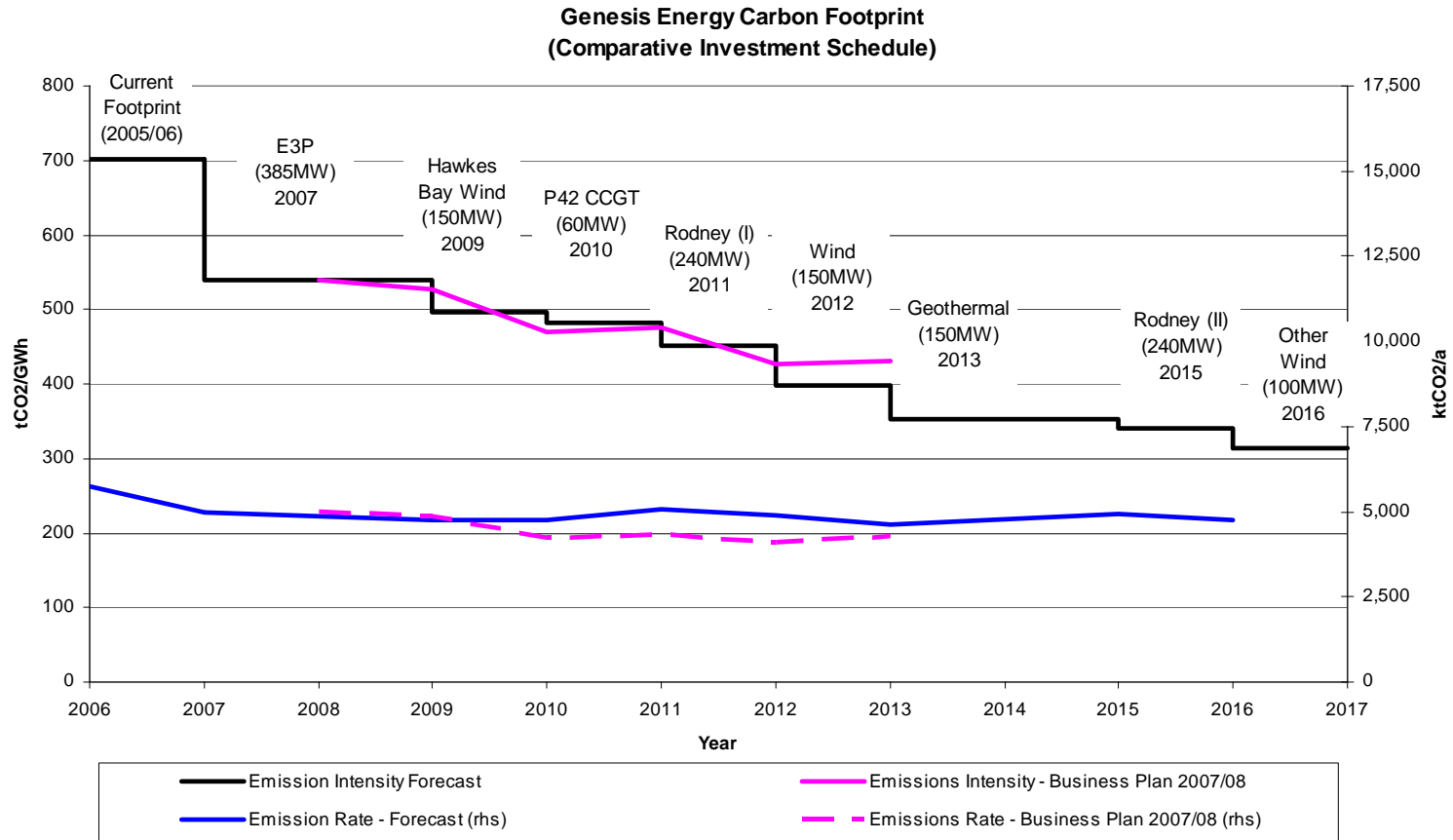
# The Emerging Environmental Risk

- Historically NOX and SOX were greatest risk
- CO<sub>2</sub> and greenhouse gases affecting climate
- Emerging targets for CO<sub>2</sub> emission
- Water the next limitation

# Consumers Want Clean Energy

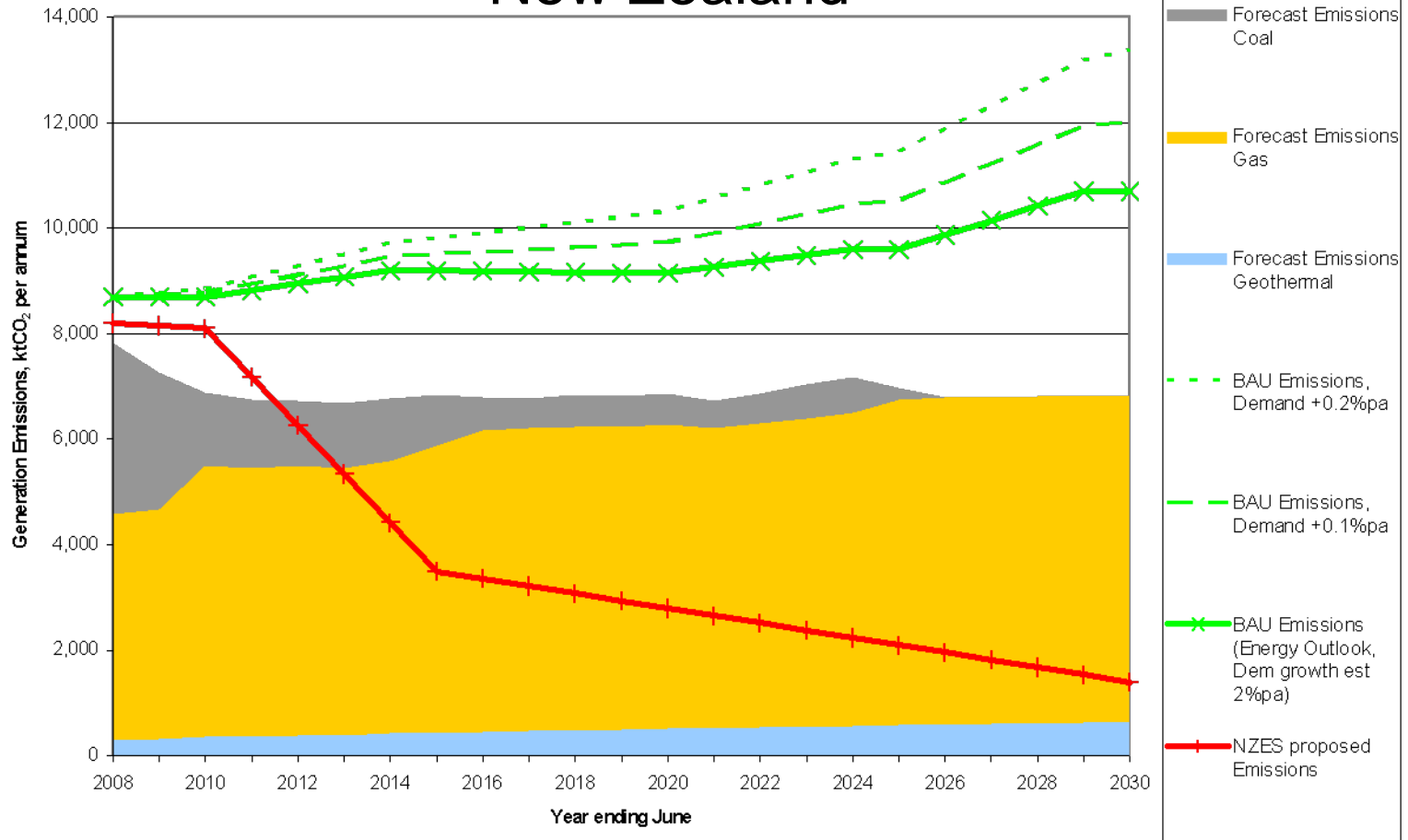
- Producers' carbon footprint to be taxed
- Emission trading schemes being developed
- New clean energy technologies emerging
- Carbon capture solutions now urgent

# Carbon Footprint Dictates Investment Strategies



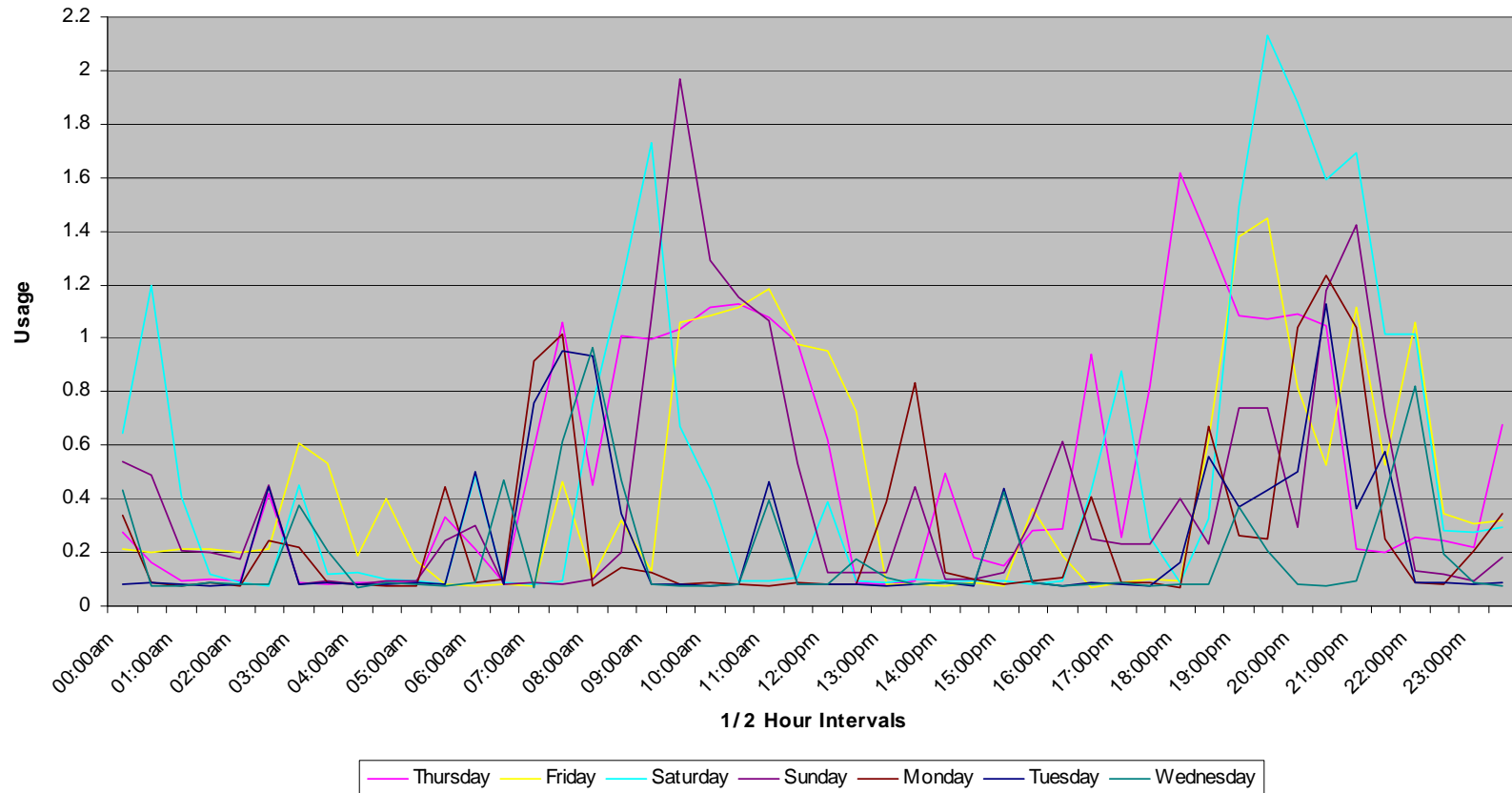
# CO<sub>2</sub> Emissions Must Come Down

## New Zealand



Sources: NZES and BAU (Energy Outlook) emissions from draft NZES ('Powering Our Future', Dec 2006)  
Forecast Emissions from Genesis Energy internal modelling Dec 2006/ Jan 2007

# Households can Contribute to Carbon Reduction



# Smart Retailers Work with Customers

- Security of supply is paramount
- Energy audits at home and at work
- Consumers are aware of their carbon footprint
- Smart meters tell the facts
- Customers want smart data and easy payment

# Summary

- Wholesale markets are moving to vertical separation
- Gross pool may distort values
- Carbon emissions will be taxed
- Consumers want smart data
- No substitute for good customer service