

NZ Energy Conference

October 2002

Presentation by:
Chris Baker
Chairman,
Greenhouse Policy Coalition
7 October 2002

Summary

- Energy security
- NZ Situation
- Kyoto Protocol policies
- Conclusion

Energy Security

- Delivered energy critical to society
- Value delivered very different to the value undelivered
- Energy security underpins other objectives – social and economic

Energy Security

- Risk of interruption of physical supply
- Short term
 - dry year
 - Supply interruption
 - Energy efficiency, renewables, are not short term risk hedges
- Long term
 - Gas / fuel availability
 - Infrastructure & generation investment
 - Portfolio approach required to reduce risk

Energy Security

- Most countries have an energy strategy
- Aimed at ensuring:
 - adequate level of investment in energy
 - So that growth objectives are met
 - so that economic and social objectives can be met.
- WEC – Need 20-25% excess generation capacity for a successful competitive market.
- Provides confidence for new investment

Energy's Role in NZ

- Energy role in the NZ economy
 - One of our few comparative advantages
 - What we do – we grow things well, we add a chunk of energy and we export the result – dairy, forest, agriculture etc
 - Can we quantify that notion
 - Econometric modelling
 - Essential tool
- Energy future
 - No longer a comparative advantage
 - Marginal cost of energy production increasing

NZ Situation

- NZ energy market moving towards fundamental change
 - Driven by change in energy supply
 - Increased marginal cost of energy production
- BAU would see coal become the marginal energy source

NZ Situation

- Depleting gas reserves/growing economy
- Options for energy security
 - Hydro, Geo-thermal, Gas, Bio, Wind, Solar, Coal
- All of these can and will contribute
- Diverse portfolio required
- We may find more gas,
- We have got coal (a lot!!)
- Investment and growth need certainty and energy is a key component to provide that security

The Kyoto Protocol

- What do KP policies do in NZ?
 - Current policies
 - Increase overall electricity price by $\sim 2\text{c}/\text{Kwhr}$ (assuming tax of $\$25/\text{t}$ of CO_2 and coal is the marginal producer)
 - Create range of incentives for renewables – NEECS, projects
 - Encourage a shift away from fossil fuels
 - Creates a “belief” that fossil fuels are bad

NZ Situation

- This is a cost our competitors are not bearing
- It is a cost that strikes to the heart of our comparative advantage

The Kyoto Protocol

- Our competitors (Aus, US, China India in particular) rely heavily on gas and coal for growth
- US investment in CCT is large
- Without coal or more gas, we don't have energy security
- Must keep options open

NZ Situation

- So what should we do?
 - Understand our economy and the contribution energy makes
 - Develop pragmatic policies that recognise:
 - The importance of energy security
 - The need to maintain a portfolio of generation capabilities
 - The strengths in our economy
 - Don't impose costs ahead of our competitors