

Planning the North Island 400 kv Line

*Roy Hemmingway
Chair
New Zealand Electricity Commission*

Electricity Commission Objectives

To ensure that electricity is produced and delivered to all classes of consumers in an efficient, fair, reliable, and environmentally sustainable manner and to promote and facilitate the efficient use of electricity.

How do we ...

- Ensure New Zealand has an adequate electricity supply?
- Maintain downward pressure on prices?
- Convince investors and consumers that we will accomplish these goals?

The Electricity Commission

- Five members and full-time Chair
- Staff of 35 -40
- Set up after failure of self-governance regime
- Set up under Electricity Amendment Act 2001
- New powers under Electricity and Gas Industries Bill
- Advises Minister of Energy

What does the Electricity Commission do?

- Proposes Electricity Governance Rules (EGRs)
- Grants exemptions from rules
- Declares Undesirable Trading Situations
- Monitors the electricity markets
- Appoints Rulings Panel to decide disputes
- Will have responsibility for providing reserve energy for 1 in 60 dry year
- Adopts grid pricing methodology
- Determines contracting parties for Transpower
- Approves Transpower's grid upgrade plans
- Develops model retail contract

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What Does the Electricity Commission Not Do?

- Set prices – retail or wholesale
- Provide base load generation
- Approve new generation projects
- Decide among gas, coal, wind, or energy efficiency to meet new demand

Transpower's 400 kv Proposal

- From Whakamaru to Otahuhu
- To serve Auckland peak loads
- Pylons up to 67 metres tall
- \$500 million cost
- First of major grid upgrades
- Designed for demand in 2010
- First line in NZ to seek exclusive corridor

Consents Required

- RMA consents – call-in possible
- 'Designation' by Minister of Land Information
- Electricity Commission
- Needed by Transpower for recovery of costs
- Must satisfy Grid Investment Test

- EC must consider alternatives

Interactions

- RMA process will need to know:
 - * Need
 - * Cost
 - * Configuration (pylon height, AC or DC)
- EC process will need to know:
 - * Location (cost)
 - * How much undergrounding (cost)
 - * Pylon height (voltage)

Alternatives

- Transmission alternatives
 - * Other voltages, new conductor, other termini, HVDC, undergrounding, use of existing pylons
- Generation alternatives
 - * Peaking turbines, major new generators, small generators
- Demand-side alternatives
 - * Gas conversion, insulation, CFLs, load shifting, major retrofits
- Need to be:
 - * On-line when needed
 - * Reliable
 - * Funded
 - * Consented
 - * Assured

Challenges

- Providing good electricity information to RMA process
- Providing good environmental information to EC process
- Not approving two different projects
- If alternative is selected, getting it into effect