

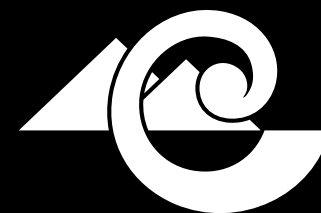
Delivering a Sustainable Energy System to Canterbury

Presentation to URS Forum

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Energy Portfolio Convenor

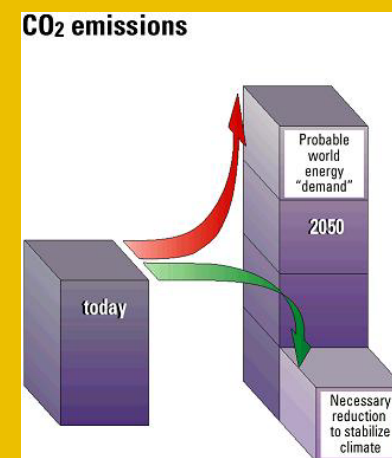


**Environment
Canterbury**
Your regional council

Attitudes to Energy

'...we are not only ignorant of what energy is, and the critical role it has played and continues to play in economics and politics, but most of us simply don't care about energy'

Paul Roberts 2004



Energy Issues: New Zealand

- Oil
- Coal
- Gas
- Renewables
- Energy efficiency



Energy Portfolio

- Regional Energy Strategy
 - Biennial regional energy survey
 - Energy audits
 - Demonstration projects
 - Renewable energy resources
-
- Climate change
 - Peak Oil
 - State of the Environment reporting
-
- Links with Clean Heat, water, etc?

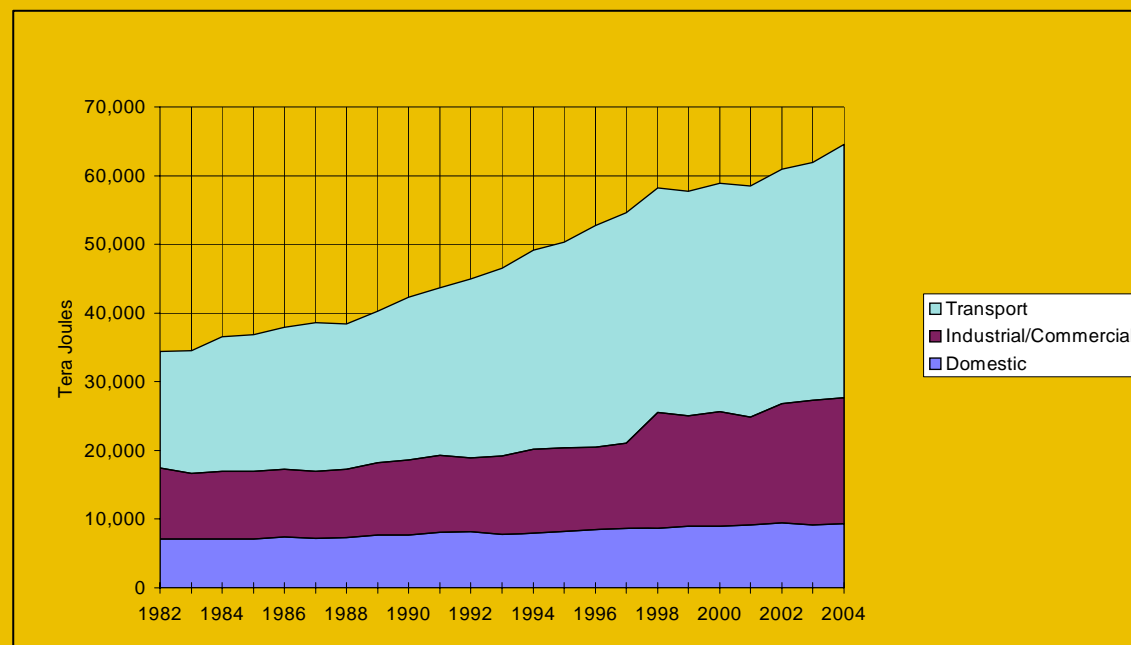


Energy trends – Canterbury

Biennial regional energy survey

- Total energy use continues to rise
- Transport energy use is the fastest growing
- Per capita energy consumption continues to rise
- CO₂ emissions – still increasing, not stabilising or decreasing

Energy demand keeps increasing



Canterbury - energy consumption by sector to 2004

Energy: The Future

Uncertainties exist around

- Thermal fuel availability
- Transmission
 - grid 'vision' / upgrade / investment
- Role of regulation
- Development under RMA, etc
- Climate change policy





Policy context

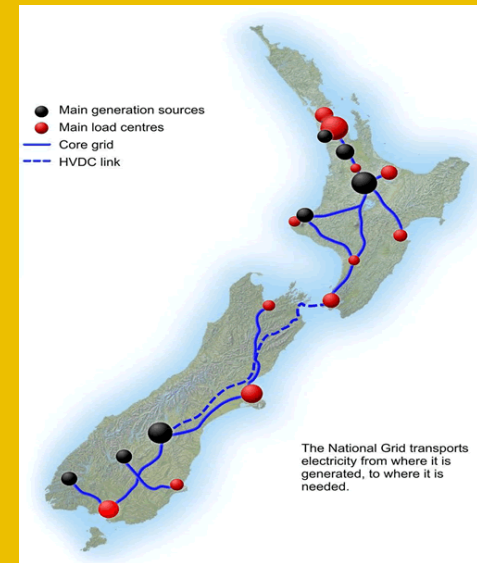
National policy

- Speech from the Throne
 - PM statement on Peak Oil
- National Energy Strategy
 - Includes energy efficiency
 - link to climate change policy
- Resource Management Act
- Building Act
- Local Government Act



Regional policy

- RMA
- Regional Policy Statement
- Regional Energy Strategy
- LGA





Energy Case Study

Community Engagement

- Energy both a national and a regional issue
- Problem 'framing and definition'
 - Energy a sustainability issue
- Wide range of stakeholders
 - Energy and non-energy
- Canterbury can take a leading step





Key questions

How do we...

1. Make better use of energy?
2. Support energy innovation?
3. Promote reliable and affordable energy?
4. Taking better care of the environment?

And...

5. What is the contribution by Canterbury to an efficient / affordable energy system for NZ?

Seminar responses

Broadly...

- Smart travel/public transport
- Education and behaviour change
- Biomass and distributed systems
- Promote innovation
- Take systems approach
- ECan role? Leadership, facilitation,...





Action plans

Different stakeholder groupings to examine...

- Options to transmission upgrade
- Urban Development Strategy
- Existing homes
- Housing design / subdivision
- Transportation - biofuels
- 'Energy Centre of Excellence'



Specific action

Canterbury Energy Strategy Forum

Examining...

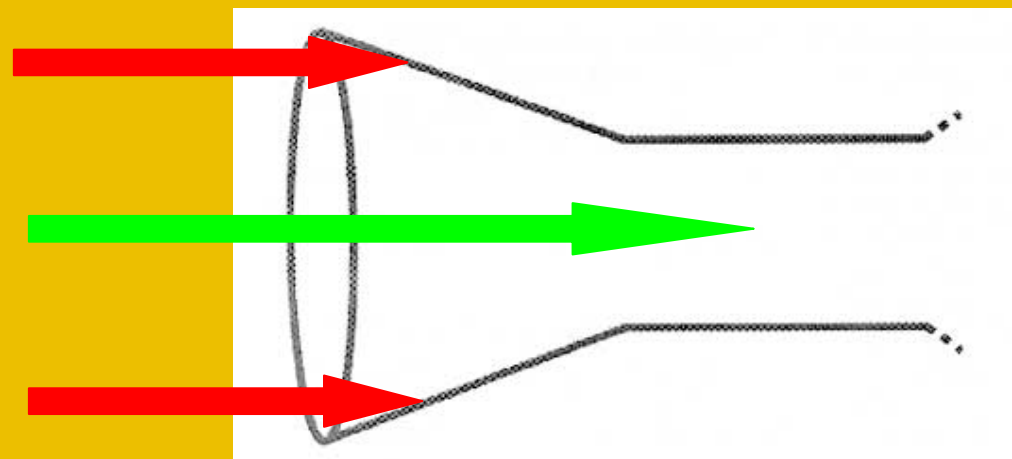
- National and regional strategic context for energy decision-making
- Regional infrastructure developments
- Regional initiatives/actions
 - creating an energy targets scheme




Sustainability



The funnel





Sustainable energy system

Some thoughts...

- Distributed Generation
- Demand Side Management
- Energy services
- Barriers to cost-competitive alternatives
 - Local biofuel market
 - SWH

Rewarding good design, not end-of-pipe!



RMA process

- Persistence with using / clean-up of existing (non-renewable) technology
- Very few cases of renewable energy implementations
- Consent applications where renewables offset emission sources
- Barriers to DG and micro applications
 - Wind – Energy3
 - Agricultural
 - Urban - Clean Heat and biomass



Buildings

- NZ business case proven (at least for non-residential)
- Inconsistency between District Plans
- Need for more sustainable
 - Residential developments
 - Business parks
- But how to influence developers for sustainability considerations?
 - Pegasus township, Aidanfield, etc...opportunities lost?

