

blue energy : taking the plunge

15 March 2007

Icon Room
Te Papa Tongarewa
Wellington



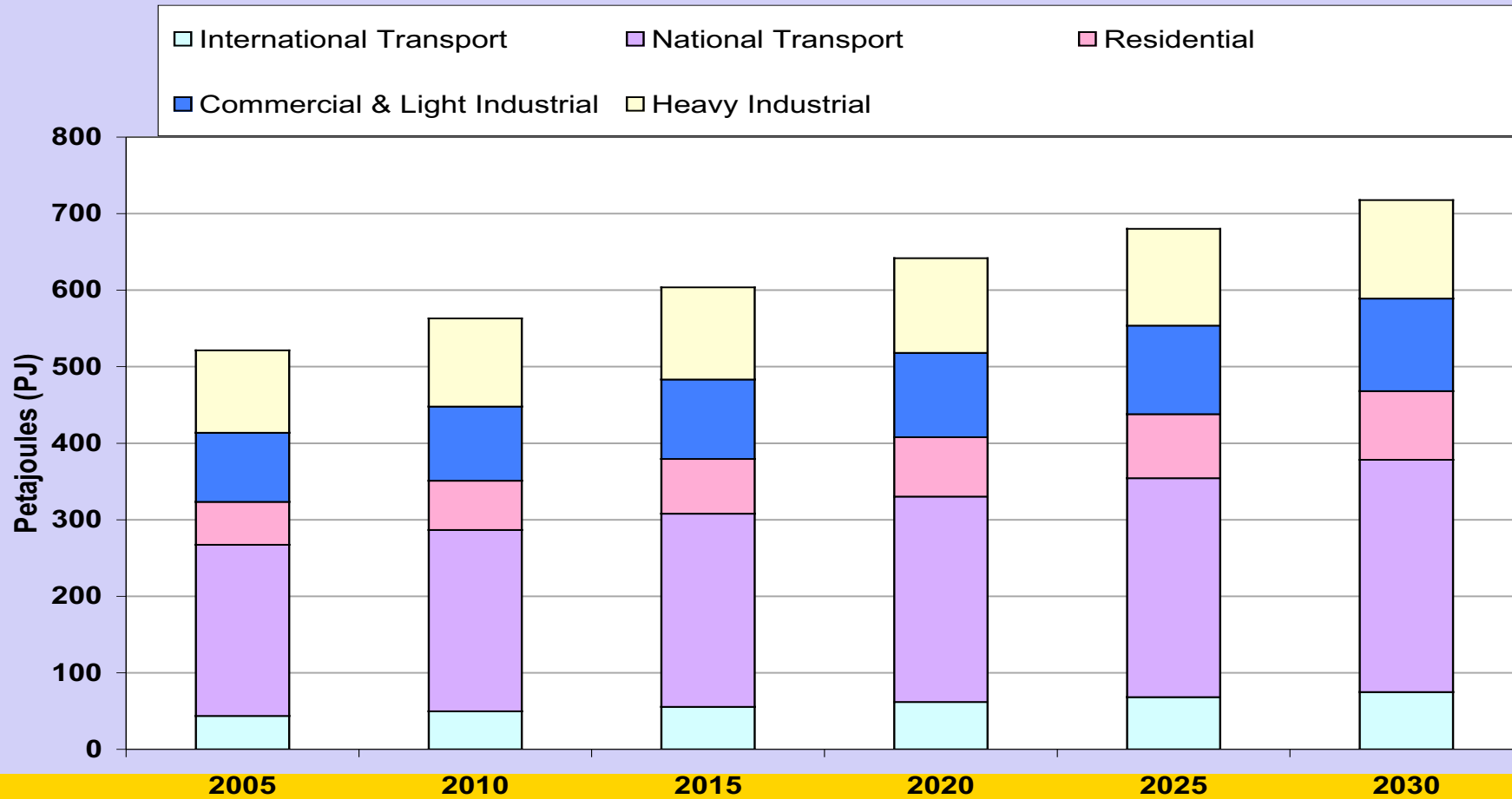
Powering our future

Towards a sustainable low emissions energy system

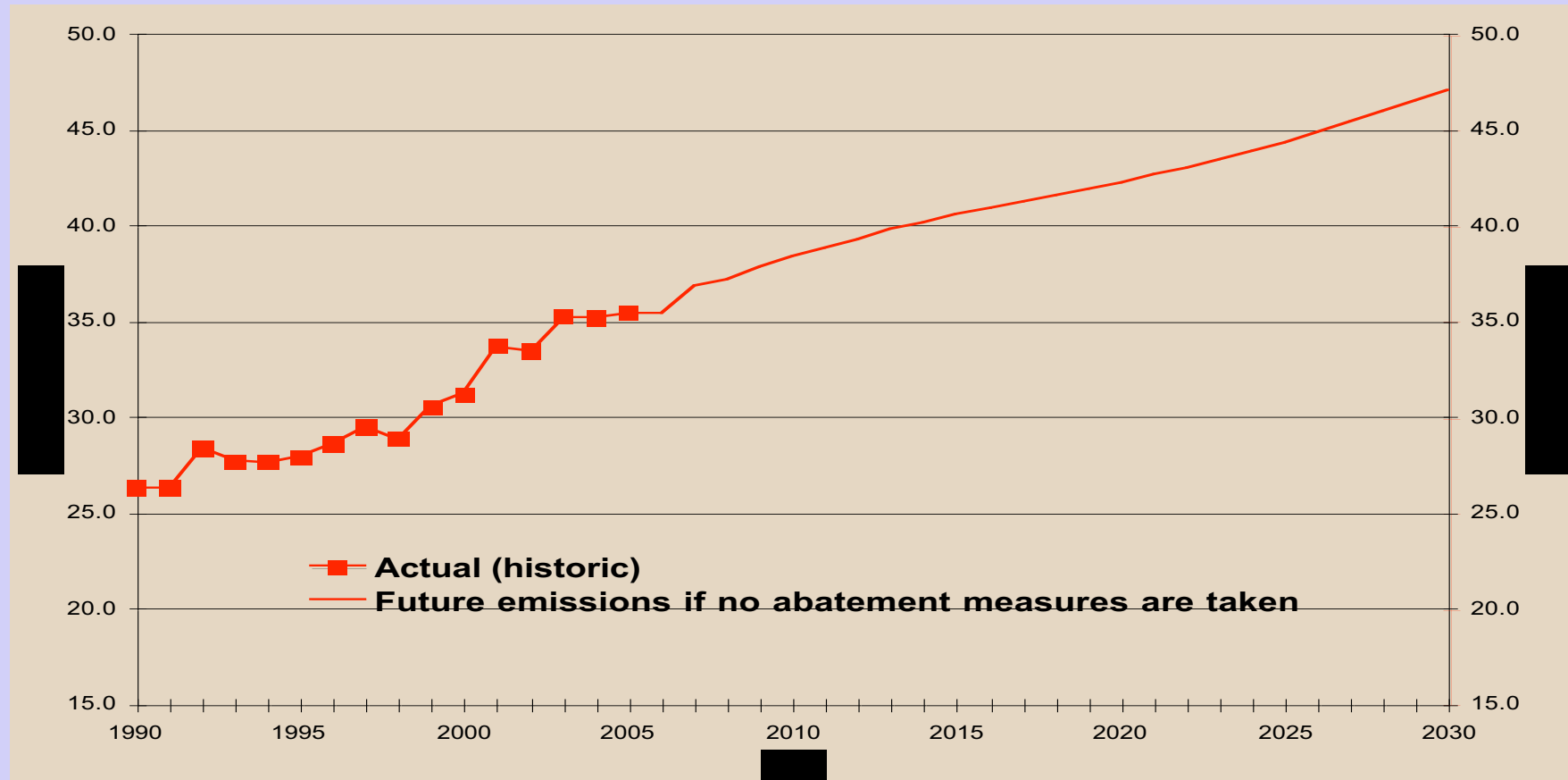


Draft New Zealand Energy Strategy

Expected demand



Energy emissions



Our challenges

- Secure and affordable energy to support our way of life, and economic development
- Respond to climate change and tackle carbon emissions from energy
- Articulating future directions under uncertainty



International context

- Future international arrangements uncertain
- Processes to build post-2012 climate change arrangements underway
- Effective arrangements need participation by major emitters
- Price on greenhouse gases likely





Policy platform

- **Powering our Future** – the draft New Zealand Energy Strategy to 2050
- **Draft New Zealand Energy Efficiency and Conservation Strategy**
- Measures to reduce greenhouse gas emissions in NZ **post 2012**
- **Transitional Measures to 2012**



Our (draft) vision

**A reliable and resilient system
delivering New Zealand sustainable,
low-emissions energy**

- The right component parts?
- The right balance?



Draft NZ Energy Strategy

1. **Strategic Leadership** Providing clear direction on the future of New Zealand's energy system
2. Security of Supply
3. Energy Efficiency
4. Renewable Energy
5. Greenhouse Gases
6. Sustainable Technologies



Towards carbon pricing

- Broad-based post 2012
- Short term compatible with longer term
- New fossil: face cost of carbon
- Emissions from existing fossil fuels: transitional path towards full costs
- Recognise benefits of new renewables



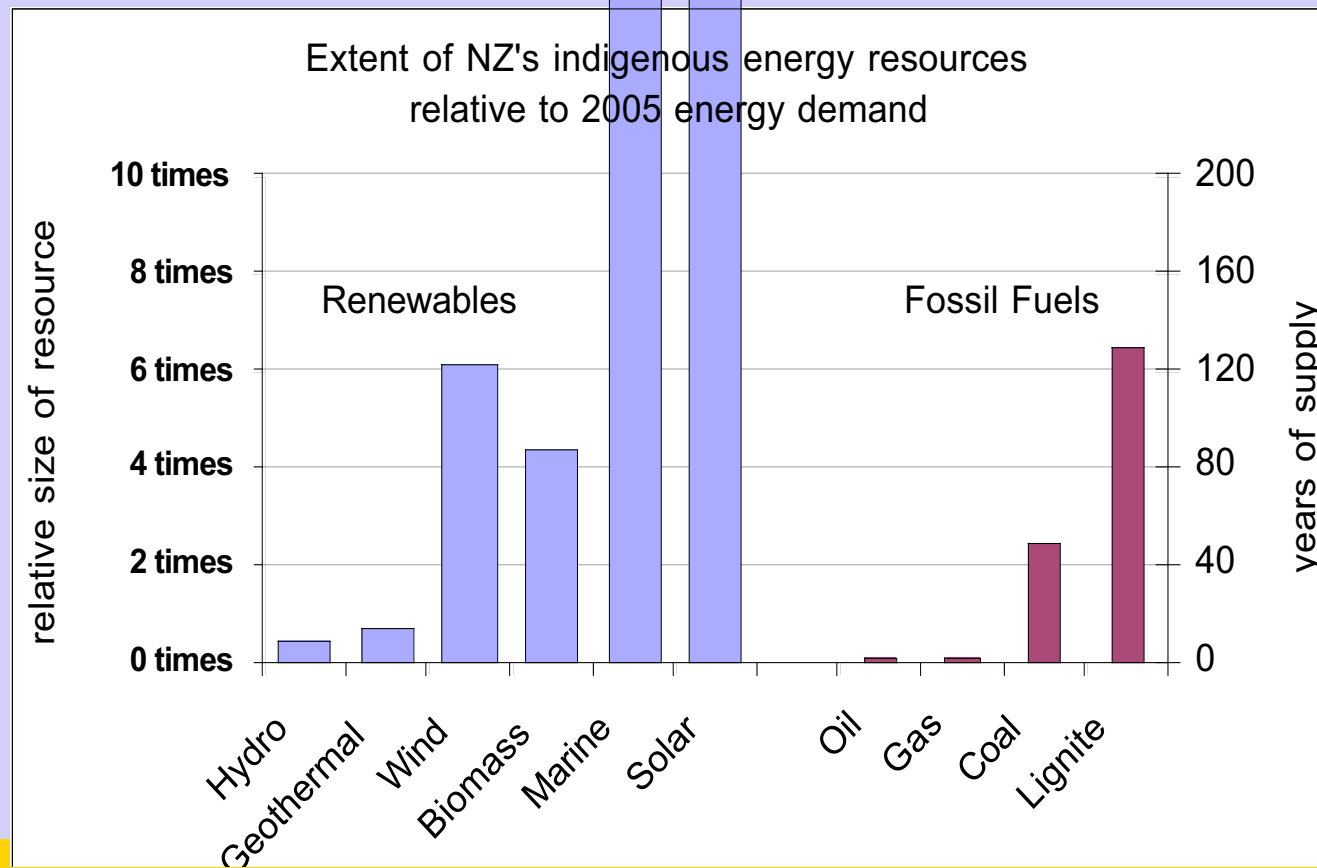
Draft NZ Energy Strategy

1. Strategic Leadership
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Maintaining high levels of security and reliability at competitive prices



Indigenous energy sources



Actions to ensure security

- Improving the electricity market
- Reduce lines companies restrictions to generation and retailing
- Increasing energy efficiency
- Promoting oil and gas exploration
- Bedding in existing gas market arrangements
- Clarifying the long-term cost of emissions
- Investment in the grid



Draft NZ Energy Strategy

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Maximising how efficiently we use our energy to safeguard affordability, economic productivity and our environment



Energy efficiency

- Invest in energy efficiency if cheaper than new capacity
- Supports multiple objectives
- NZES articulates role for govt
- NZEECS to set priorities for action
 - Sector-based approach



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Maximising the proportion of energy which comes from our abundant renewable energy resources

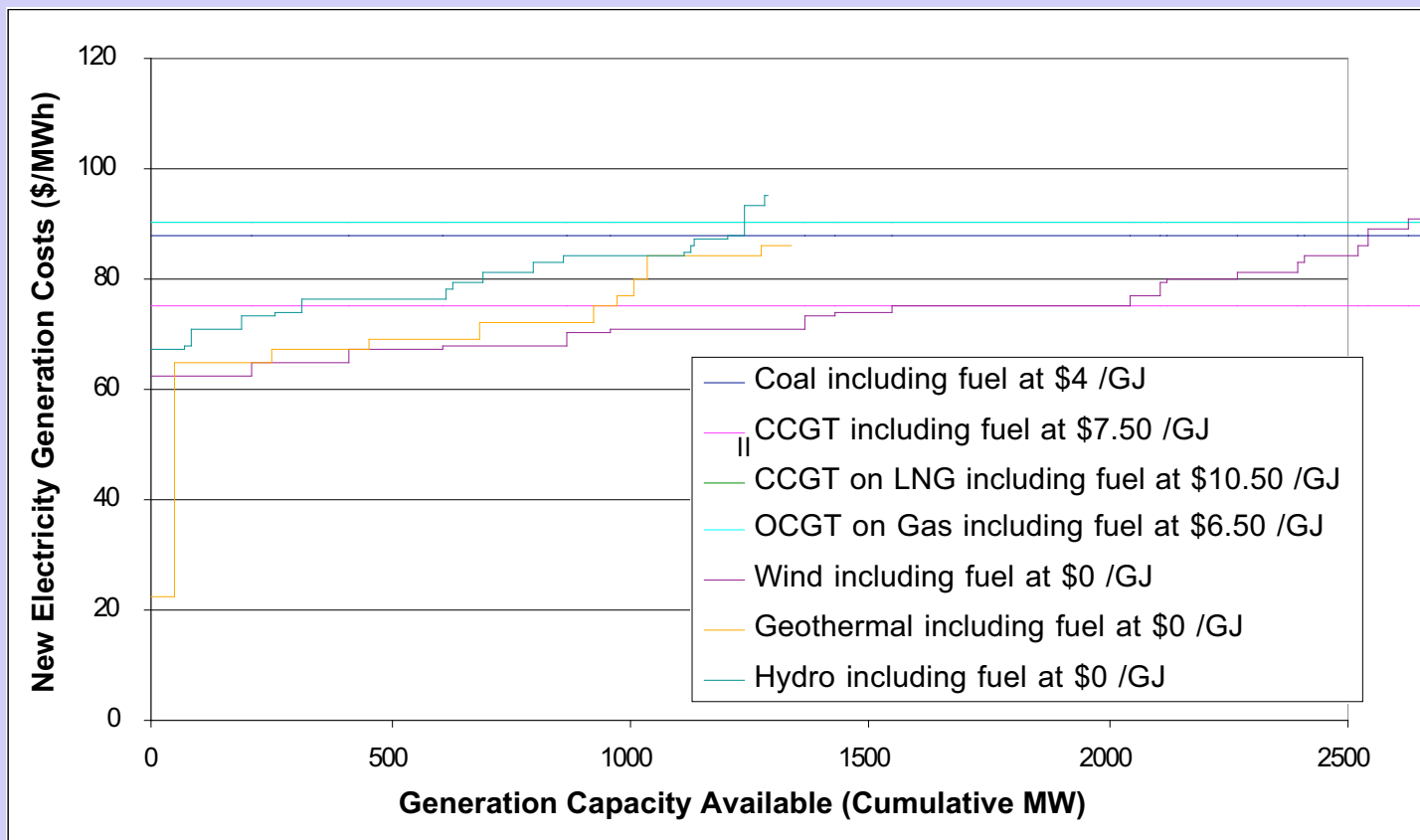


Encouraging renewables

“Preference that all new generation be renewable, except to the extent necessary to maintain security of supply”



Renewable electricity appears competitive already



Policy issues

- Influencing investment until carbon is priced
- Addressing any barriers to renewables
- How and which emerging technologies to support



Measures to encourage

- Triple bottom line reporting for generators / retailers – new requirement to report carbon emissions
- Consolidated RMA consenting process for wind and geothermal
- Marine energy fund
- Transitional measures



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Reducing our
greenhouse
gas emissions



Reducing emissions not only helps the environment

- Saves money
- Makes our economy more efficient
- Improves international competitiveness



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**Promoting
environmentally
sustainable
technologies**



Promoting sustainable technologies

- Strengthen international linkages
- Industry taskforce: biofuels and electric vehicles
- Smart meters
- Marine Energy Fund



Bright future for marine energy

- “With adequate international research funding support, availability of commercial products is expected within the next 10 years” PB Power, July 2006
- Between 1985 and 1999 the unit cost of electricity produced from wind generation fell by approximately 50%
- Significant work underway internationally, and within NZ, means similar outcomes possible for marine



Marine Energy Fund

- Significant potential for marine energy in NZ given vast marine resource
- NZES announces \$8m contestable fund to bring forward deployment of marine power
- Priority likely to be for small-scale deployment near islands or coastal communities currently reliant on diesel-fuelled generation
- Focus on “widgets”, not paper



Potential barriers to marine power

- Capital for research / prototype development?
- Capital for deployment?
- Testing / certification?
- Grid connection?
- Understanding of marine resource?
- Environmental impacts?
- RMA?
- Foreshore and Seabed issues?
- NZ Coastal Policy Statement?



Stakeholder feedback sought

- Government currently considering criteria and arrangements for the fund
- In designing fund need to understand the key barriers and opportunities for deployment
- Stakeholders' views a critical input





Next steps

**“Nothing is particularly hard if you
divide it into small jobs”**

Henry Ford



Draft New Zealand Energy Strategy

Next steps

- Consultation ends 30 March
- Key decisions to make
 - Final mix of measures
 - Stringency
 - Rate of the transition



END



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