



Economic, social and regulatory policy challenges for energy

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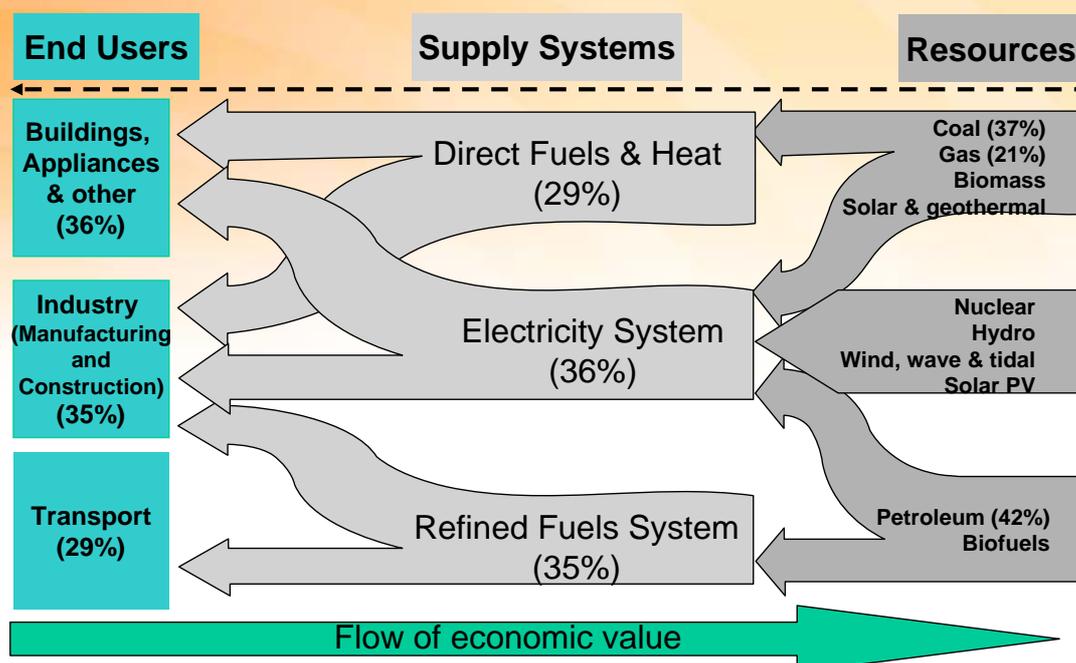
Centre for Energy and Environmental Markets (CEEM) established ...

- *to formalise* growing interest + interactions between UNSW researchers in Engineering, Business, Arts and Social Sciences, Environmental Sciences, Law...
- *through UNSW Centre* providing Australian research leadership in interdisciplinary design, analysis + performance monitoring of energy + environmental markets, associated policy frameworks
- *in the areas of*
 - Energy markets
 - Primary focus on the Australian National Electricity Market (NEM)
 - Energy related environmental markets
 - Eg. National Emissions Trading, Mandatory Renewable Energy Target (MRET), Energy Efficiency Certificate Trading...
 - Broader policy frameworks and instruments to achieve desired societal energy and environmental outcomes

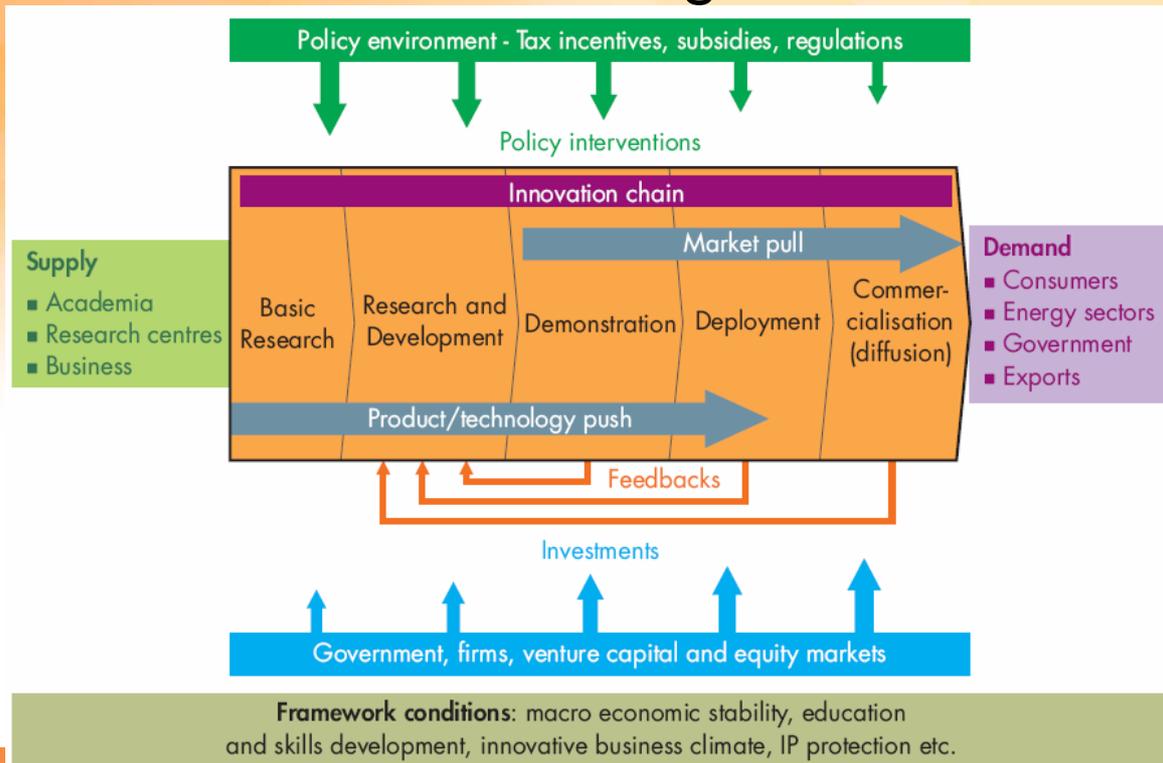
Energy challenges

- Key drivers:
 - Climate Change
 - Energy security
 - Welfare and sustainable development
- Key opportunities
 - Renewable energy technologies
 - Cleaner fossil fuels
 - Distributed energy systems
 - Energy efficient technologies
- The key challenge
 - Developing and implementing economic, social and regulatory policies to drive appropriate change

The complexities of our energy systems



The innovation challenge



Source: IEA, Energy Technology Perspectives, 2008

A coherent and effective policy mix

	Informational and regulatory approaches <ul style="list-style-type: none"> Information disclosure Auditing Technical Regulation 	Economic instruments: <ul style="list-style-type: none"> Subsidies and taxes Environmental 'designer' Markets 	Innovation instruments : <ul style="list-style-type: none"> Market engagement programmes Strategic R&D, demonstration and deployment
Behaviour	●	●	●
Substitution	●	●	●
Technical innovation	●	●	●

Energy Efficiency regulation
Emissions Trading
Renewable Energy target funding

Source: Adopted from Grubb 2006



A role for CERPA in economic, social and regulatory policy analysis

Such analysis requires:

- Understanding of the rapid technical innovation now underway in sustainable energy
- Engineering economics and policy understanding of different technologies
- Economics and market understanding
- Understanding of legal and policy environment

Such analysis offers:

- Useful guidance to policy makers
- Knowledge for technology researchers

→ A key role for CERPA



Thank you... more information on our
website:

www.ceem.unsw.edu.au