



Market Shifts & Energy Innovation: Where Does Australia Fit In?

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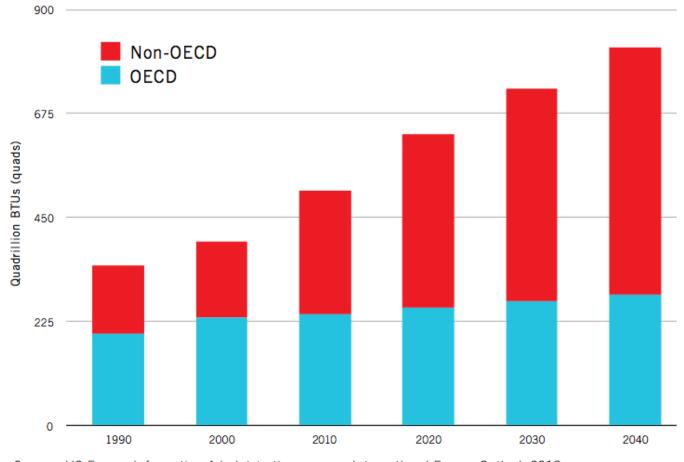


"The world is approaching a tipping point in the development of energy technologies that could generate increases in energy productivity on a scale not seen since the Industrial Revolution"





WORLD PRIMARY ENERGY CONSUMPTION, 1990-2040



Source: US Energy Information Administration.

International Energy Outlook 2013.





"Combined, the emerging economies of Brazil, Russia, India, Mexico, China, and South Africa provide as much public funding on energy research, development, and deployment as do all 29 OECD member countries of the International Energy Agency"

Source: "The Energy Technology Innovation System", *Annual Review of Environment and Resources*, Vol. 37 (2012), pp. 137-162





The priorities of energy system expansion efforts in the developing world, and the donor countries and organisations that work there, must be consistent with broader development objectives that include agricultural modernisation, the creation of domestic industrial capacity, and meeting the needs of rapidly growing cities. Powering the development of modern urban, agricultural, and industrial infrastructures requires large quantities of cheap, baseload power and liquid fuels.





Shifting Energy Markets and Opportunity

How do we position ourselves as a nation in this process?

How do we participate in transitioning markets?

How do we develop our manufacturing sector in niche areas to meet this opportunity?





Where can we find our niche?

- New energy technologies and services
- Enabling technologies
- Transitional and bridging technologies

What do we need to get there?

- Refocus our attention on large-scale innovators with capital capacity and a healthy absorption of risk
- Integrate research, training and skills development to the emergence of new markets and technologies
- Address the gap in technology collaboration





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