Employment impacts of policies to reduce emissions and increase deployment of renewable energy

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Consultancy project for the Climate Institute by IT Power, CEEM & MMA

CEEM 2009/10 Annual Conference

25th Feb 2010

IT Power

IT Power

- Established in the UK 1981
- Specialist sustainable energy engineering consultancy:
  - renewable energy consulting and ventures
  - climate change policy building
  - international development, supporting the Millennium Development Goals
  - business consulting and due diligence
- > 1000 sustainable energy projects in over 100 countries
- IT Power Australia – Canberra
  - staff located in other States
- IT Power – UK (3 offices)
  - Argentina, China, Fiji, India, Kenya, Uganda

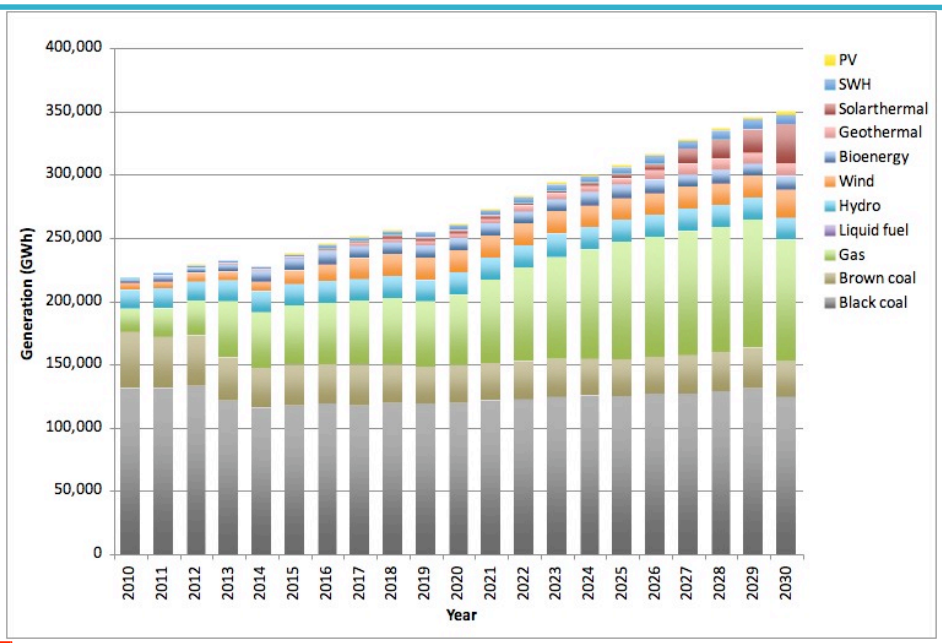
IT Power

Modelling

- Electricity generation and employment impacts of:
  - Reducing emissions by 25% below 1990 by 2020 (80%/2050),
  - 45,000 GWh RE target
  - Compared with and without CCS from 2025
- National, state/territory & six regions:
  - Gippsland (Vic)
  - Central West NSW
  - South East Queensland
  - South East WA
  - North Queensland
  - South Eastern NSW

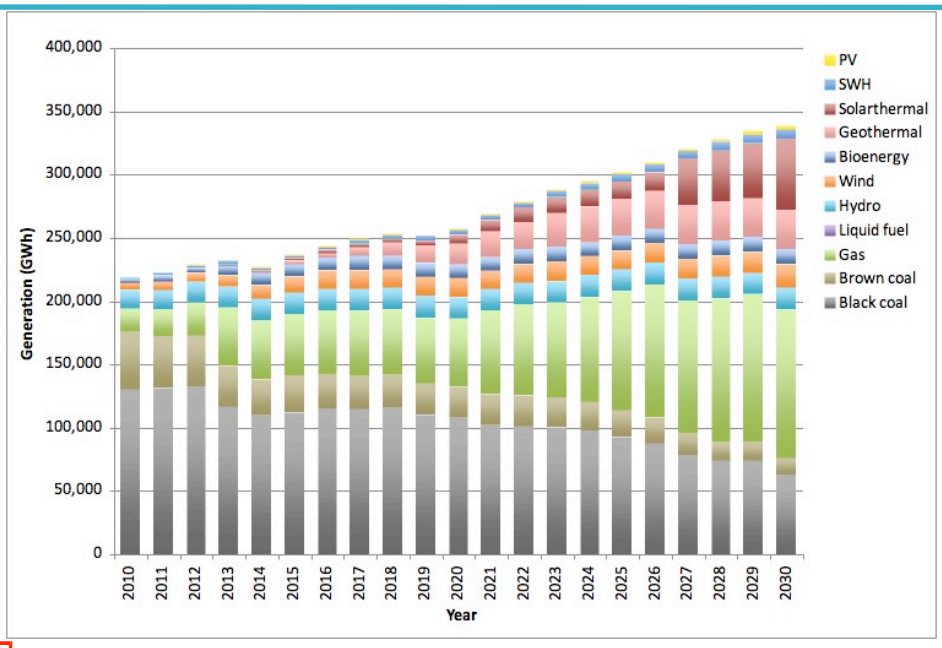
Power

Aust generation with CCS



Power

Aust generation no CCS



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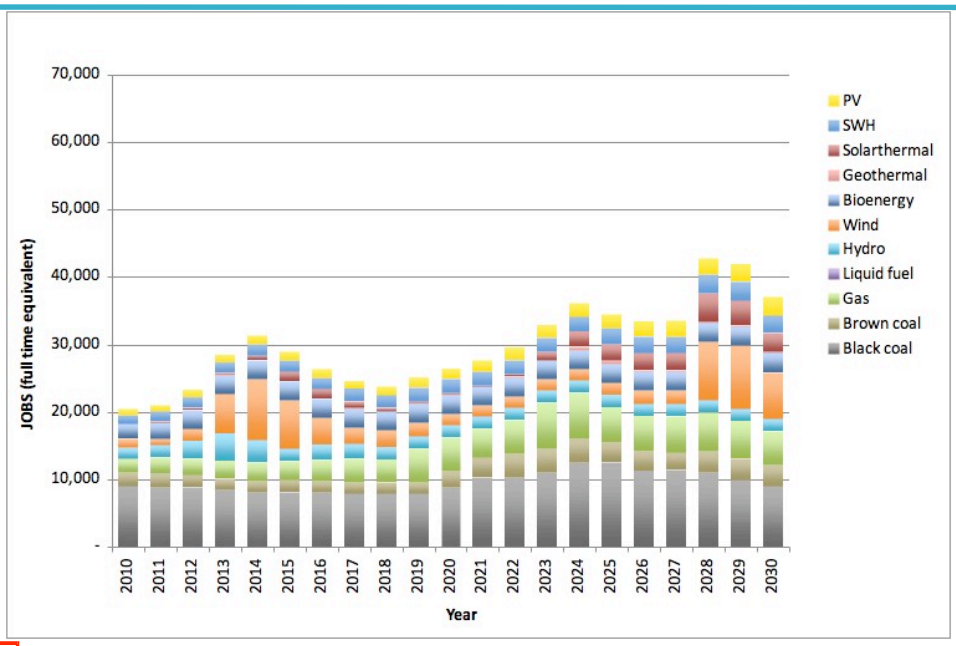
Aust employment with CCS



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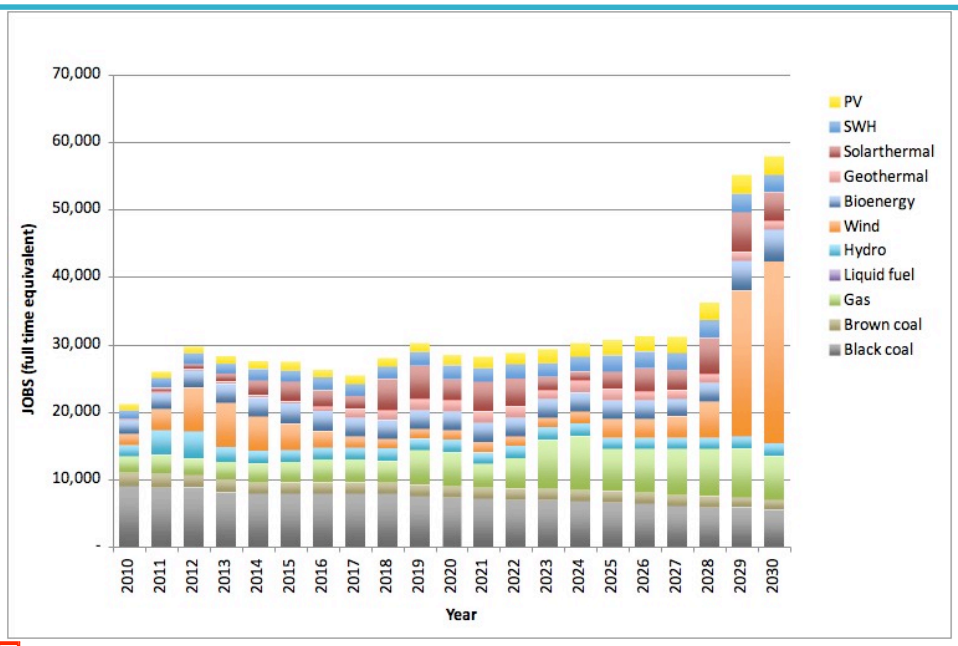
Aust employment no CCS



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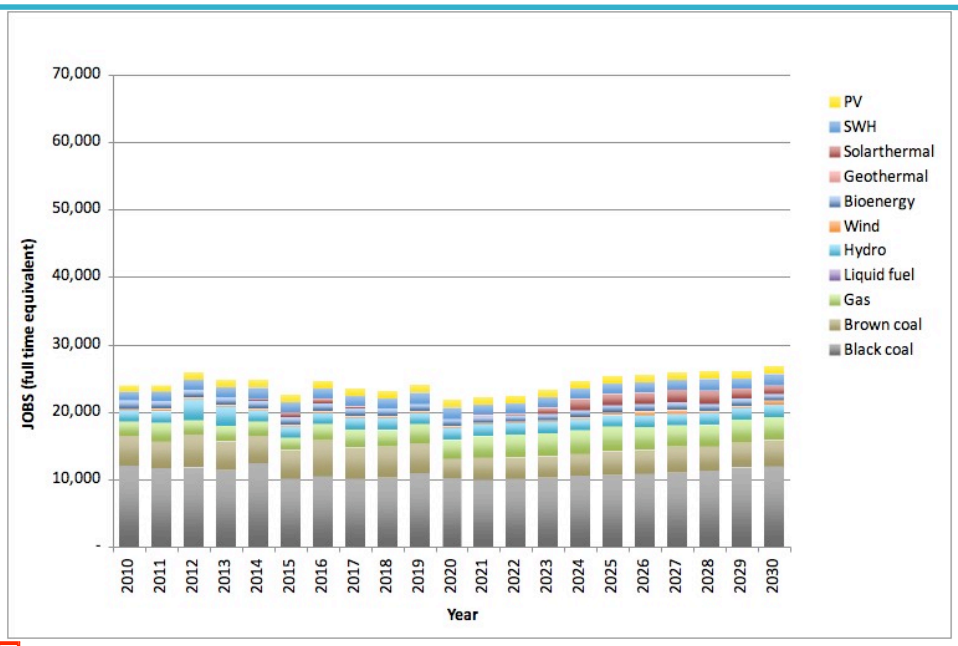
Aust employment BAU



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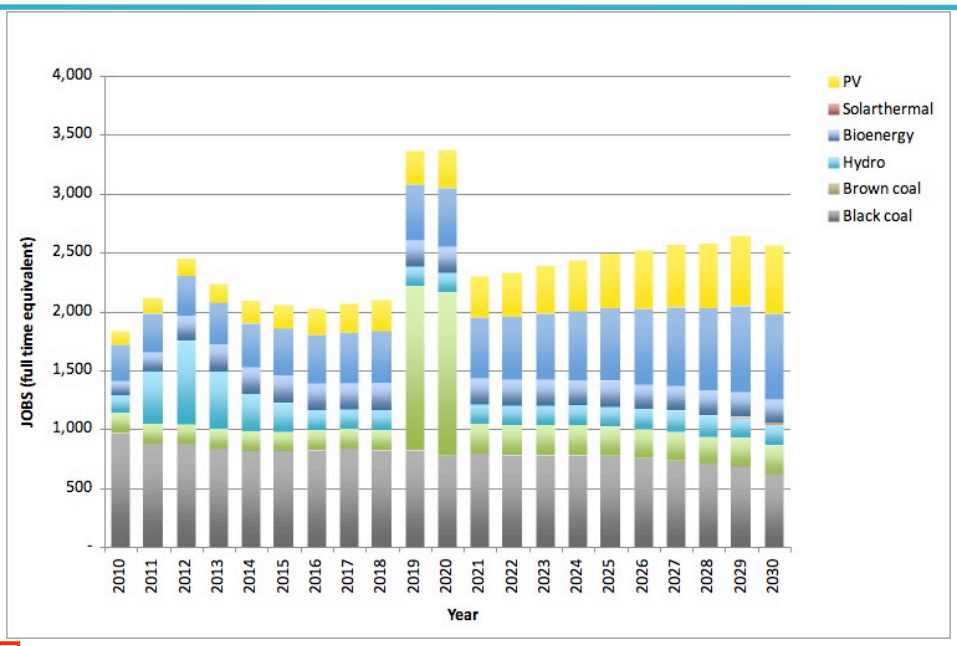
SE Qld with CCS



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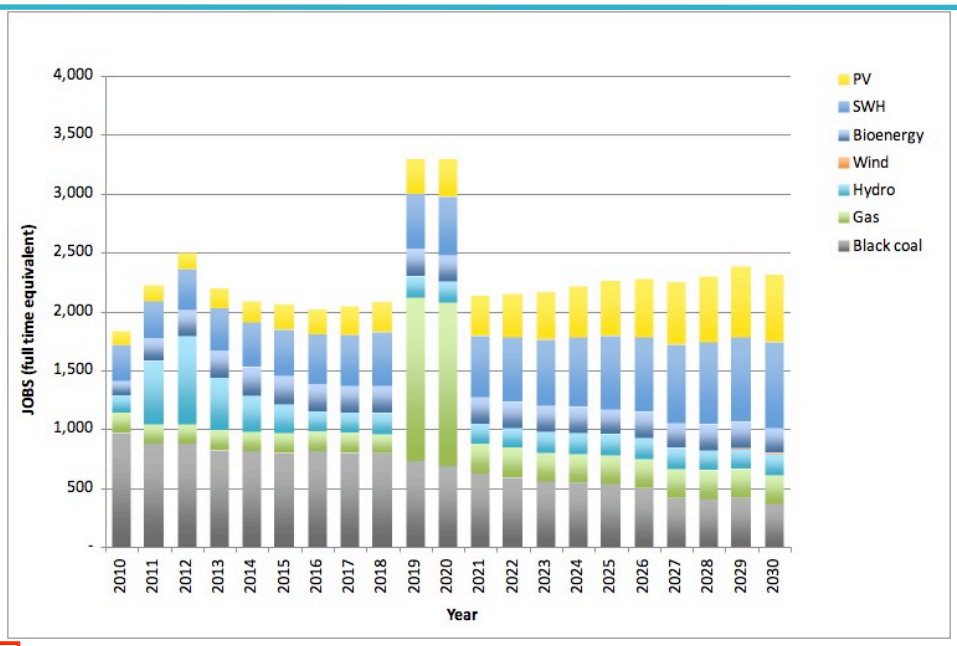
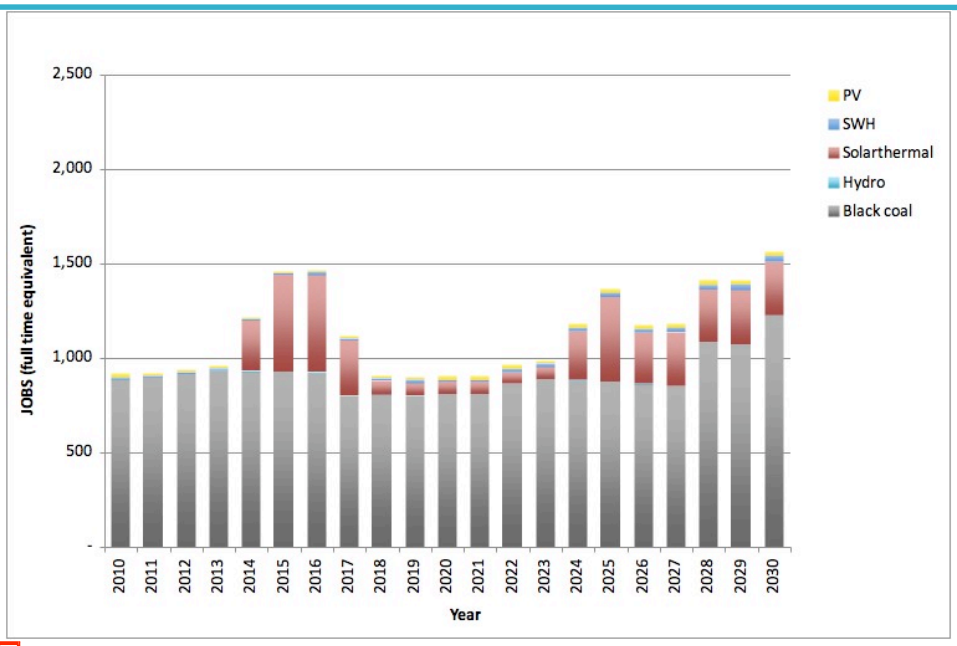
SE Qld no CCS



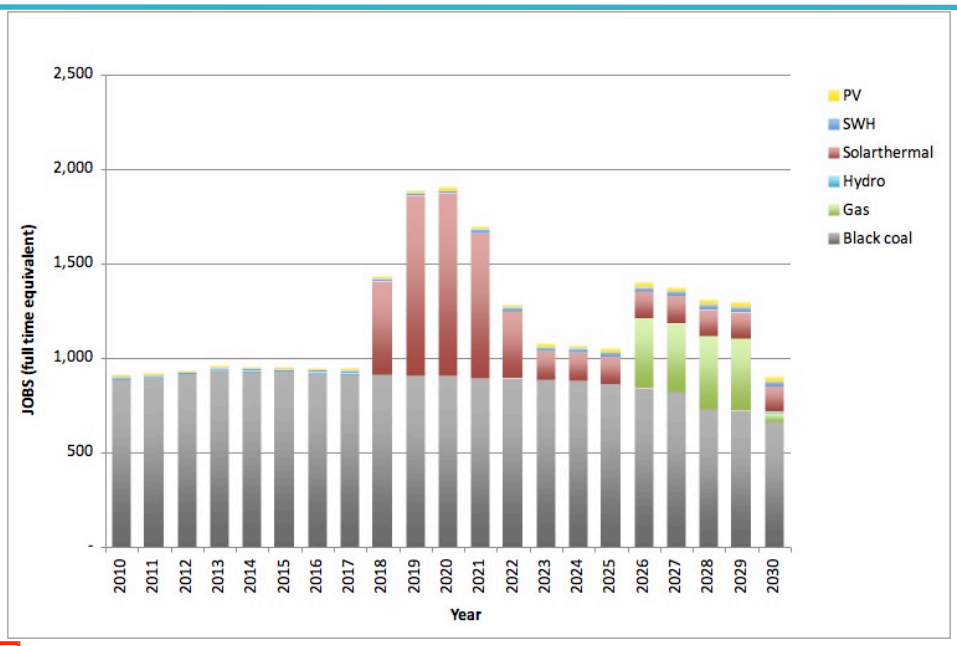
Power

Central West NSW with CCS



Power

Central West NSW no CCS



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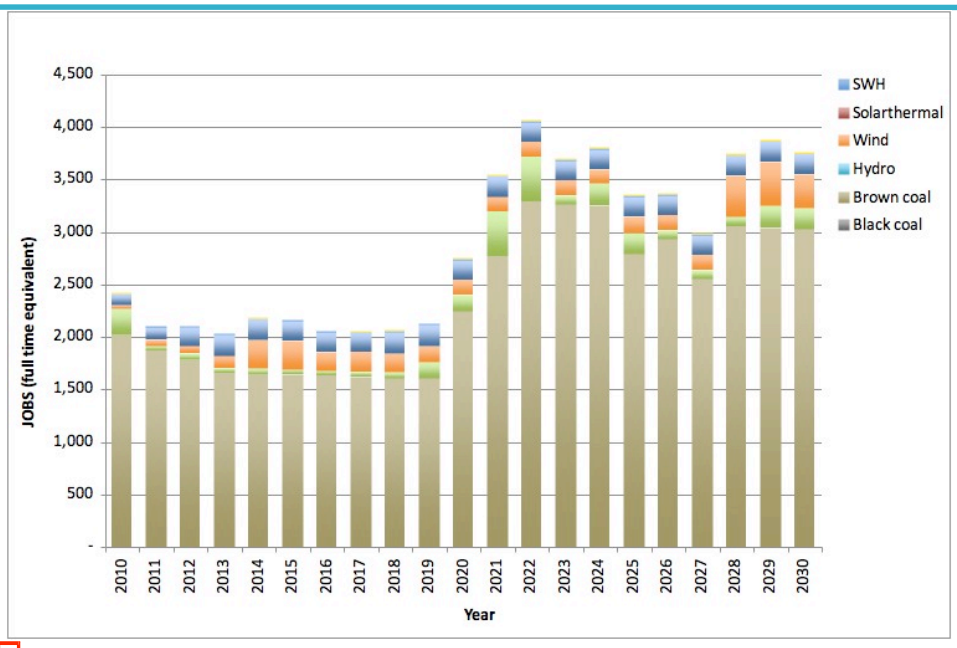
Gippsland/Latrobe with CCS



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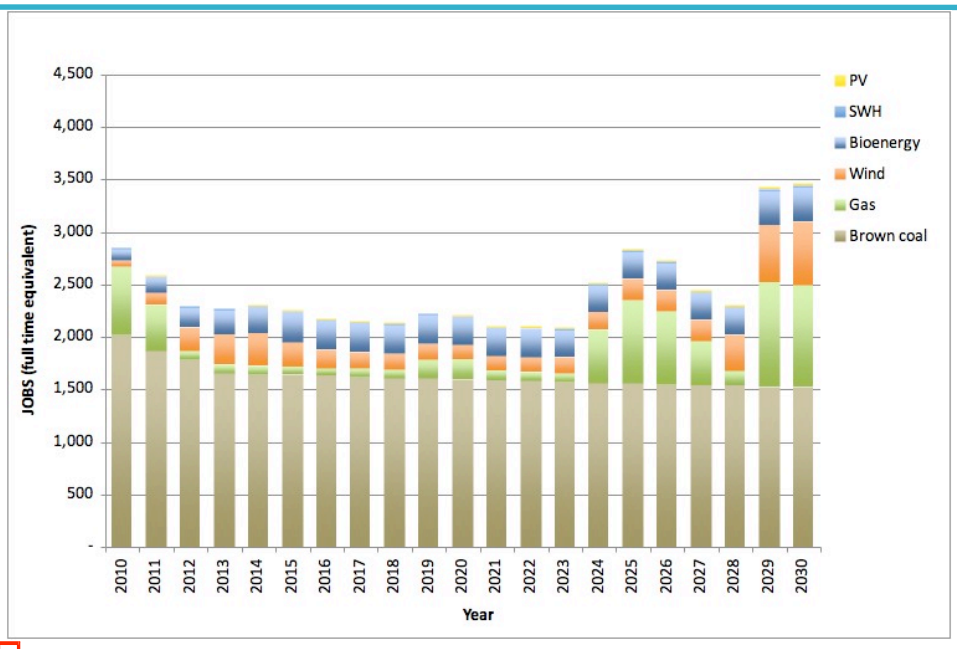
Gippsland/Latrobe no CCS



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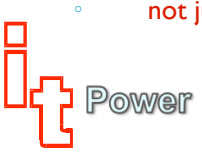
The interesting stuff …

- Skills and training
  - Helps deal with structural readjustment
  - Retraining existing and training new entrant employees
  - Required at all levels from trades through to upper management

- Maximising employment creation (in Aust)
  - Maximise abatement in Aust, reduces reliance on international credits
  - Capture more of value chain eg. manufacturing
  - Focus on export markets, including education, helps to achieve economies of scale

Even more interesting stuff …

- Factors affecting opportunities in local regions
  1. Availability of local renewable energy resources
     - builds capacity in local products, processes and skills, clean energy hubs
  2. A research base for innovation and new industry development
     - technological, financial and institutional innovation, industry clusters
  3. The capabilities of existing industries, businesses and skills
     - trades/professions and industry capabilities can be redirected
  4. The local capacity for up-skilling and re-training
     - existing educational facilities, industry involvement for specialist training
  5. Ease of access to export markets
     - not just physical access, business contacts/knowledge/expertise



Thank you and questions …..