

ACIL Tasman

Economics Policy Strategy



Energy Technology R&D Collaboration with Emerging Economies

Some Perspectives

Dr John Söderbaum, FTSE
Beijing

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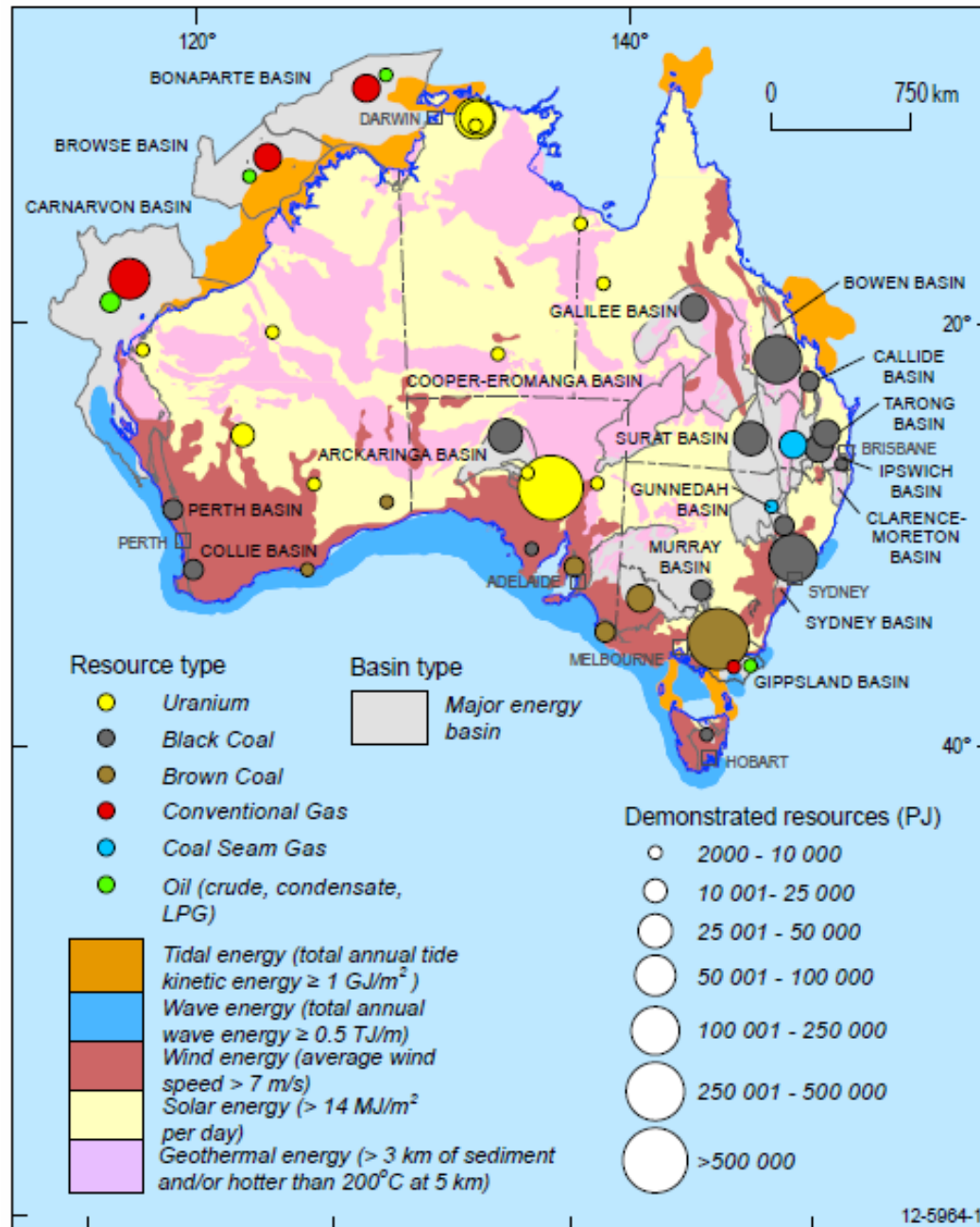
Outline of presentation

- Overview of Australia's energy situation
- 2012 Energy White Paper
- Australian Renewable Energy Agency
 - Priorities
 - R&D Funding strategy
- Some personal perspectives on collaboration

Australian energy resources



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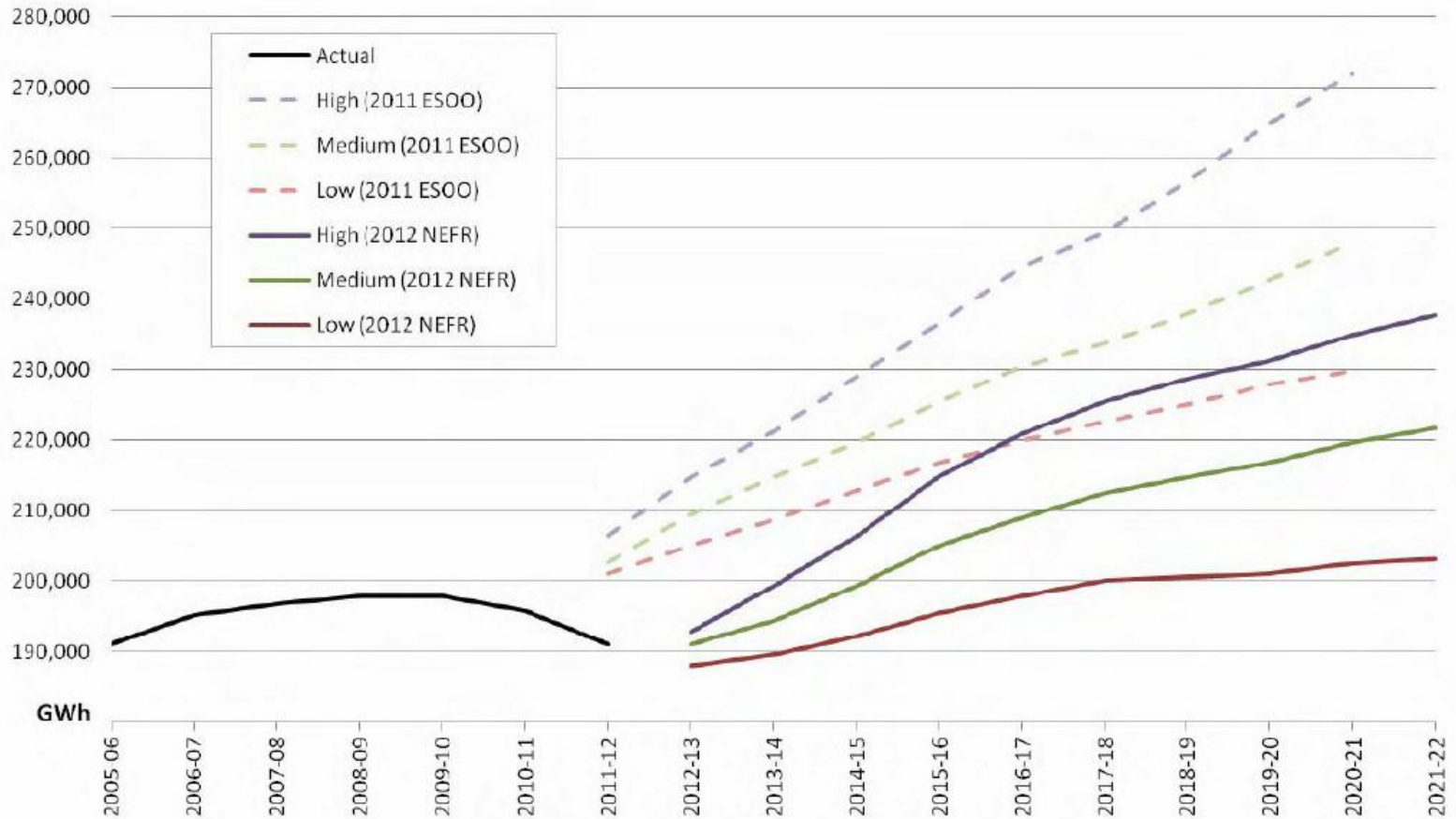


Source: DRET



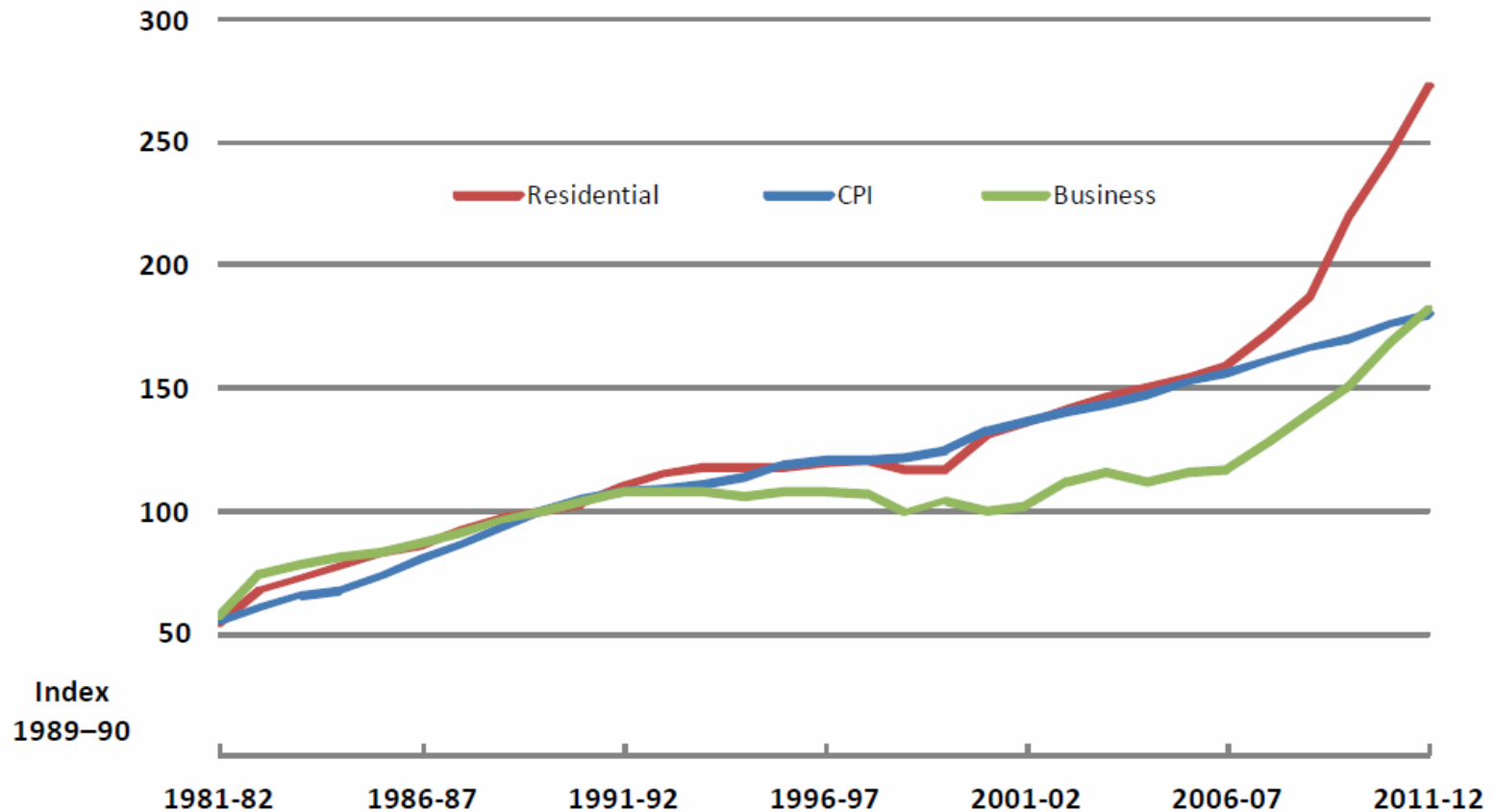
Slide 3

Electricity demand falling



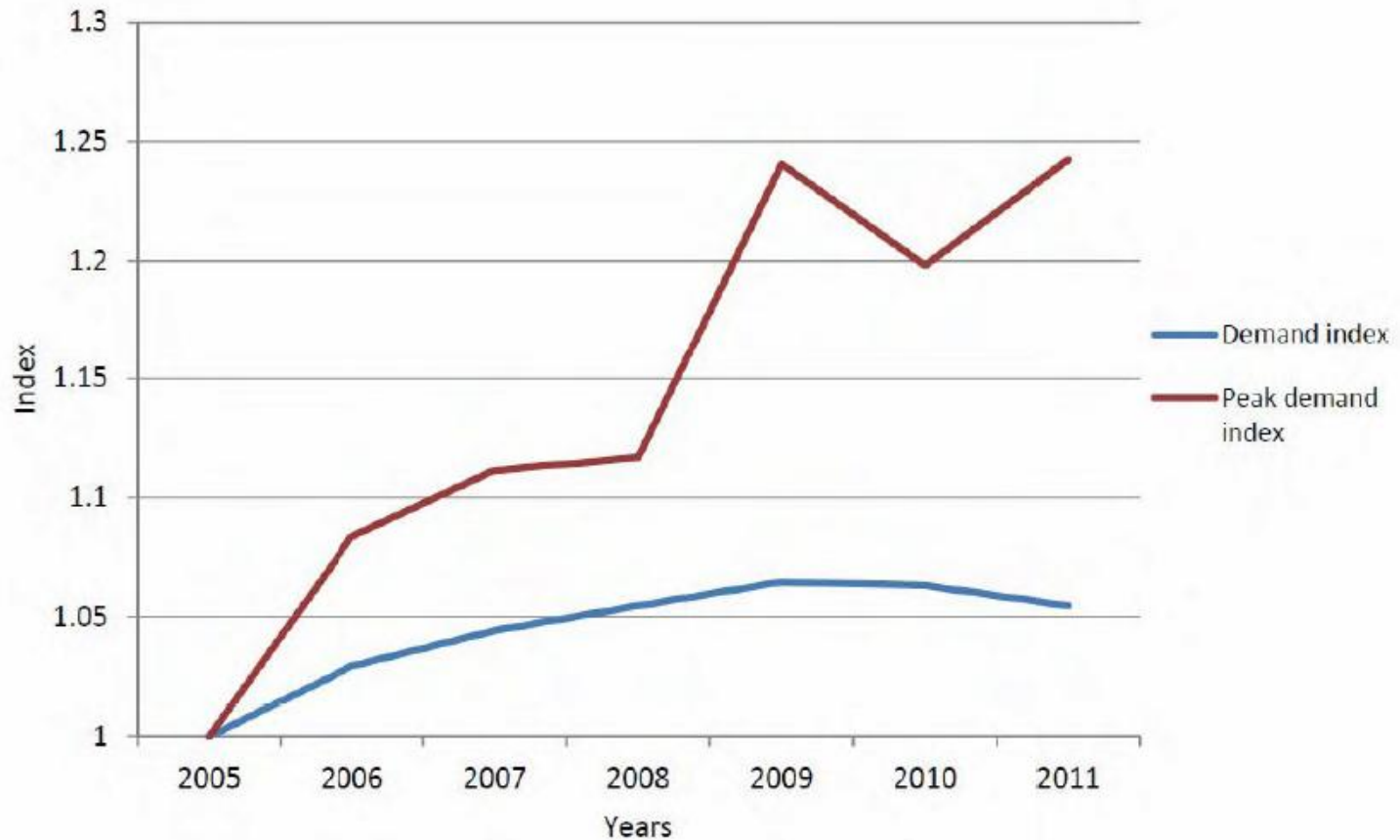
Source: ESOO; NEFR

But electricity price increasing



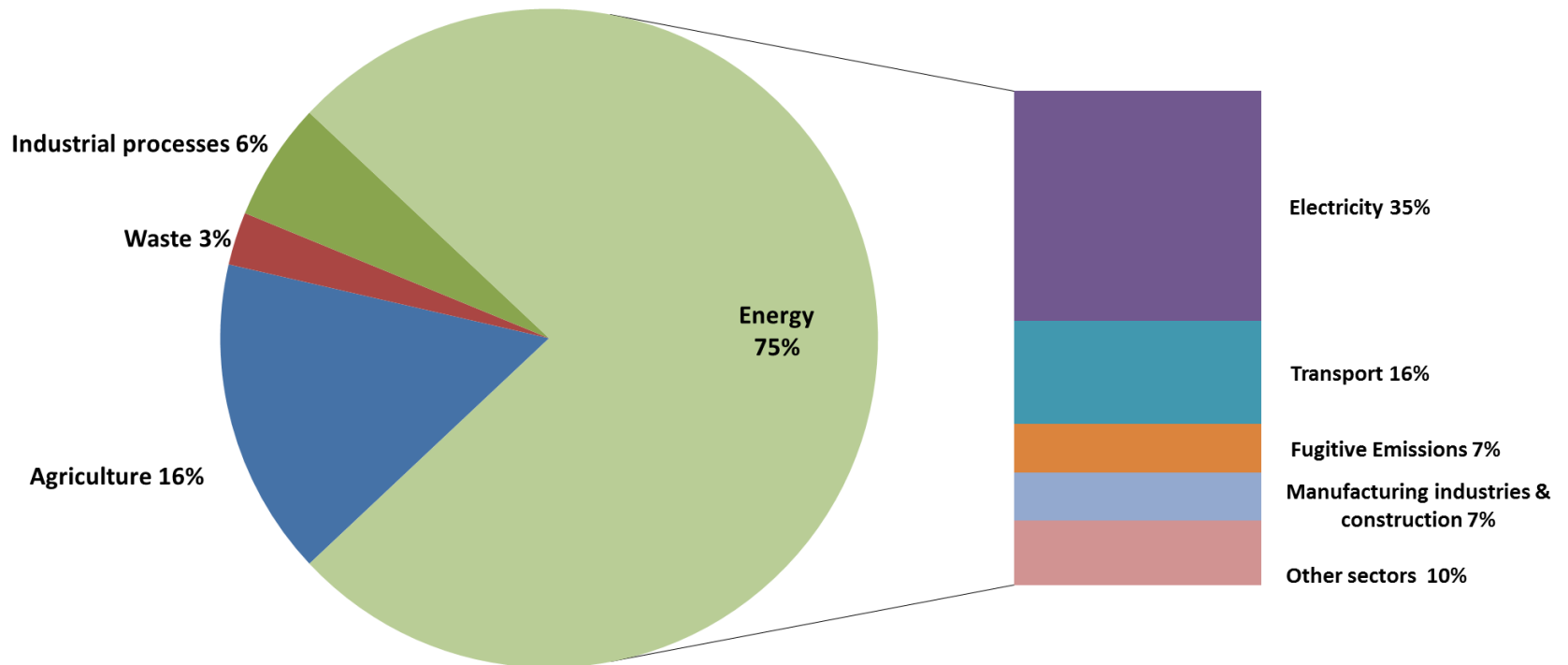
Source: BREE; ABS

Peak vs. Average Demand



Source: ENA 2012, AEMO 2011, AEMC 2012

Australia's greenhouse emissions



Energy White Paper Priorities

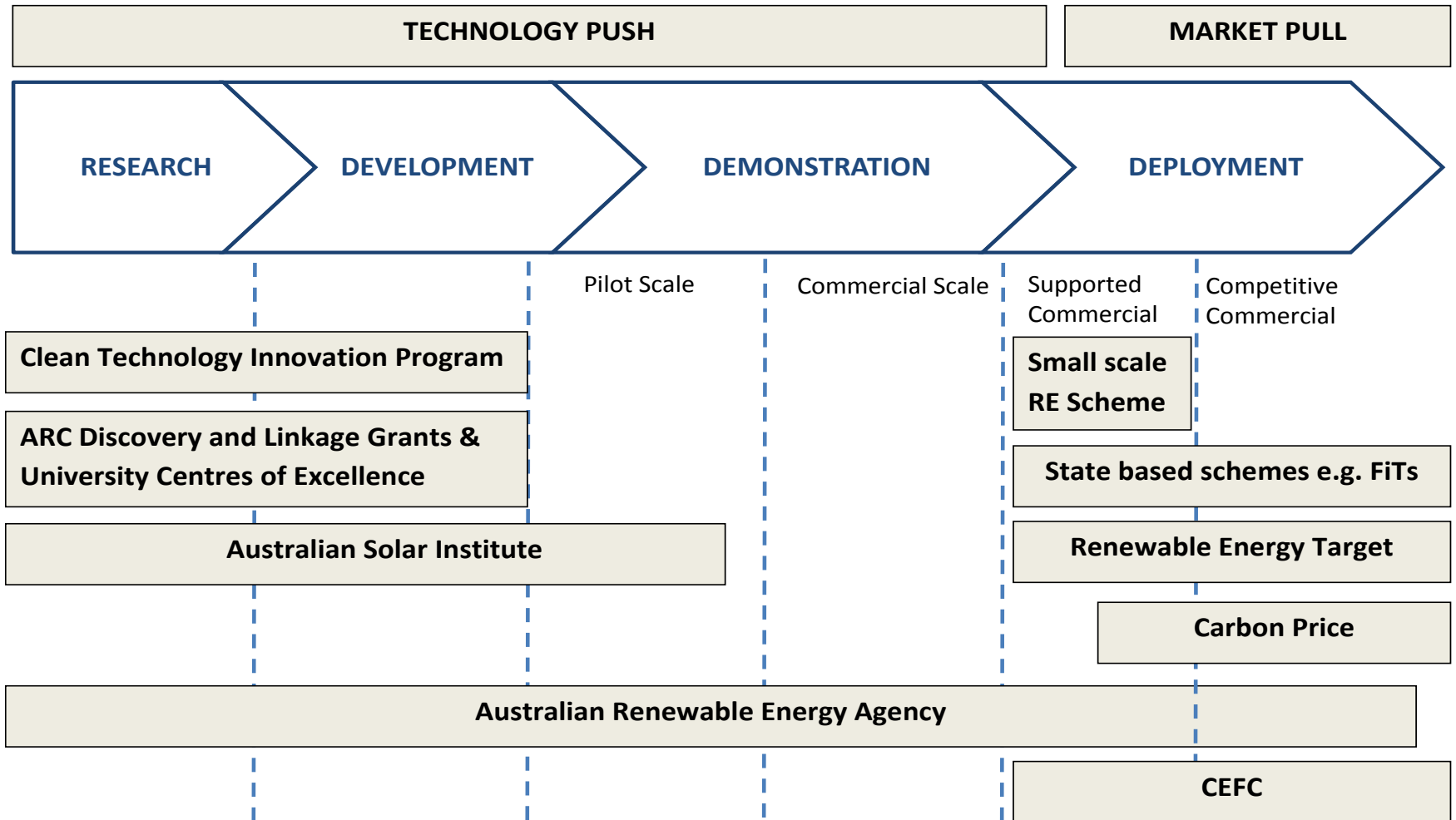
Strengthening the resilience of Australia's energy policy framework

Reinvigorating the energy market reform agenda

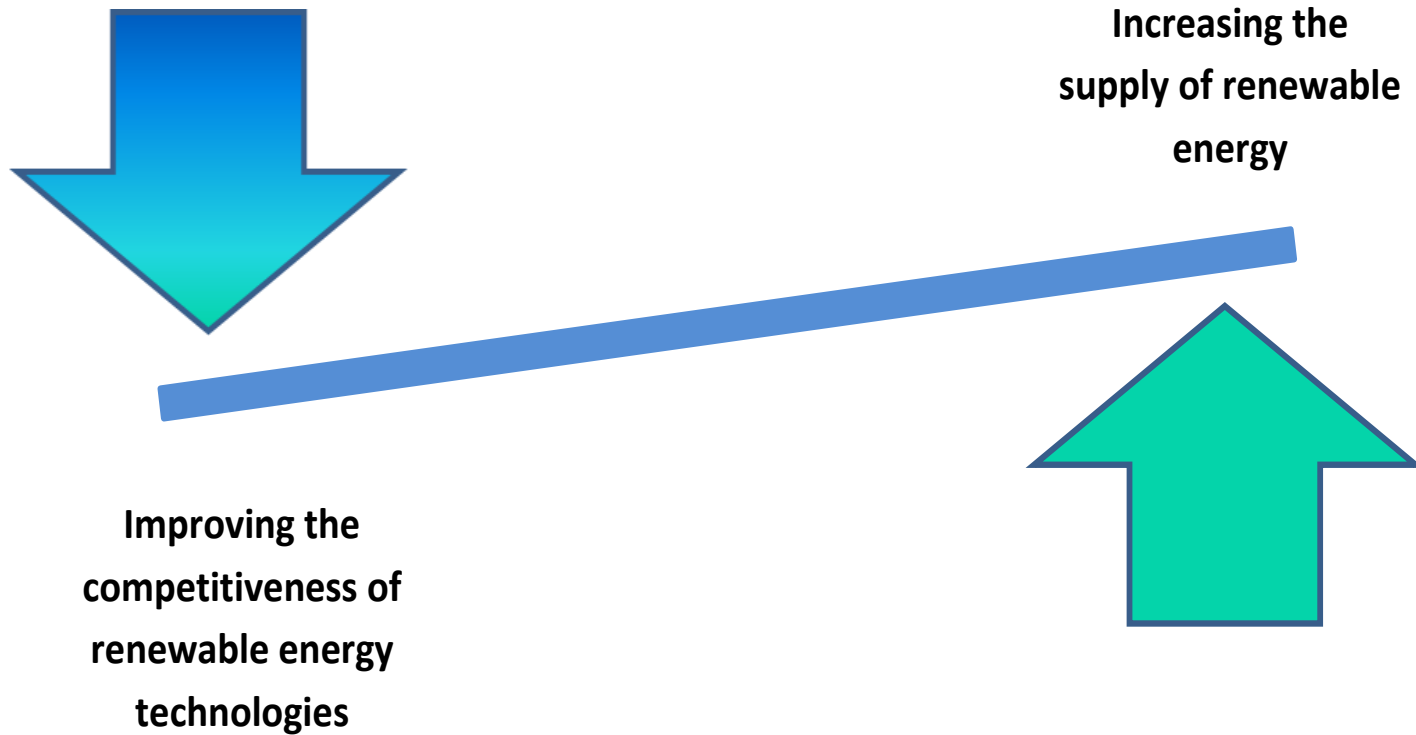
Developing Australia's critical energy resources – particularly gas

Accelerating clean energy outcomes

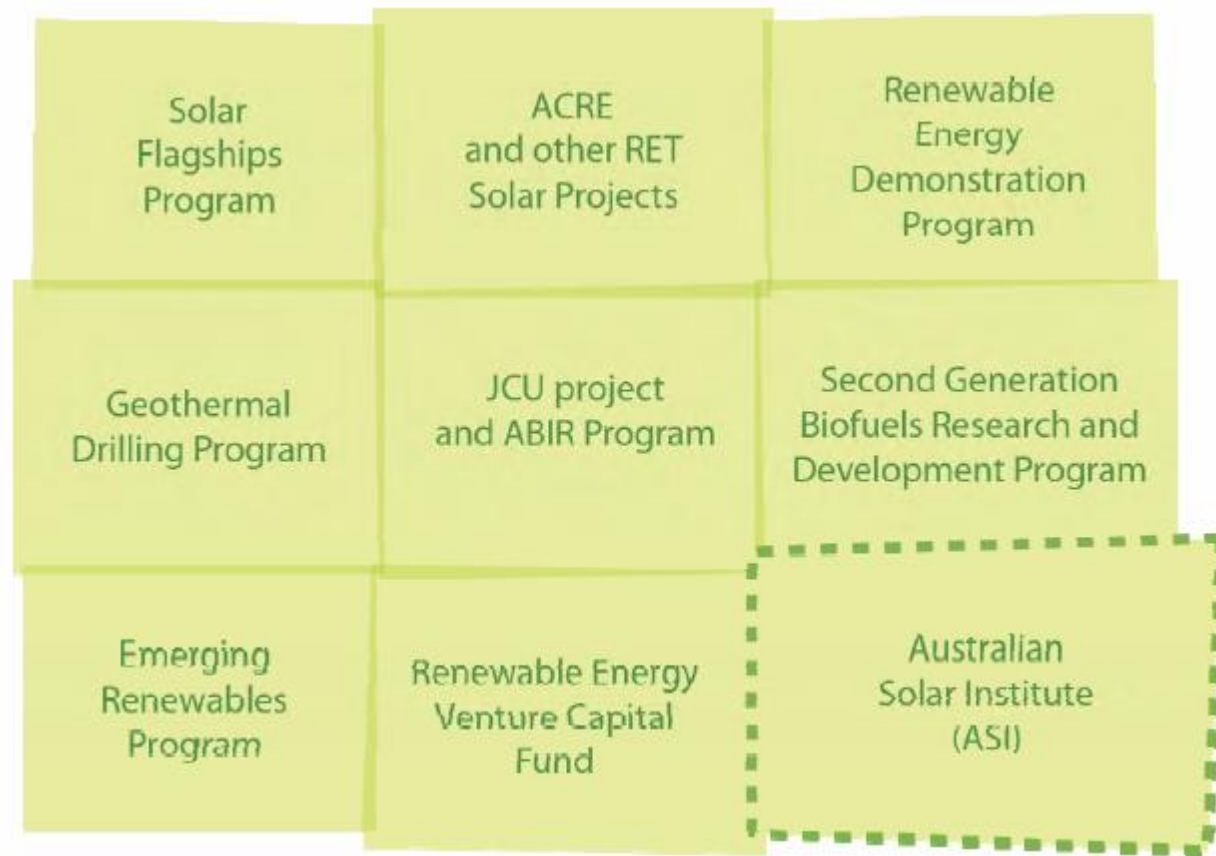
Australian Government support for renewable energy technology development



ARENA's Objectives



Foundations of ARENA



ARENA's Priorities

- Strategic initiatives - larger in scope smaller in number
 - large scale RE demonstrations in regional and remote locations (Solar Flagships)
- Supporting initiatives – smaller in scope, addressing specific roadblocks
 - e.g. system integration, intermittency, storage, technology demonstration & and testing facilities
 - Australian Solar Institute (ASI) projects
- Complementary initiatives - broad based and cross-cutting
 - comprehensive program to support knowledge sharing about renewable energy solutions
 - continuing programs

Thoughts on ARENA

- Independent body at arm's length from government (*good*)
- Funding guaranteed by legislation (*good*)
- Active across innovation spectrum (*good*)
- Actively engage with proponents (*good, but tbc*)
- Flexible and nimble approach (*good, but tbc*)
- Establish and maintain formal international engagement arrangements (*good, but tbc*)

Why international engagement?

- To promote energy trade and investment
- To shape international policy and processes
- To enhance understanding of energy policies, programs and accelerate energy innovation
 - through cooperation on technology RD&D and commercialisation
 - by exchanging knowledge and building capacity and expertise

Some thoughts on collaboration

- Can accelerate energy technology innovation
 - Multidisciplinary approach encourages new thinking
- Must benefit all parties
 - Priorities must align
 - IEA Implementing Agreements a good example
- Can improve efficiency and effectiveness
 - But it has to be adequately funded
 - There are extra costs (e.g. travel)

Some examples

- NZ, Japan and Germany collaborating with Indonesia on geothermal energy
- Australia and China cooperating on Clean Coal Technology
 - \$1million Fund to build partnerships
 - ATSE is managing
- Australia and India collaboration on solar
 - Meeting between ATSE and Indian Academy to consider options
 - Solar-heating and cooling ?
 - Off-grid or remote systems ?
 - Building integrated PV ?