'Break even' carbon credit for potential Australian CO₂ source-sink projects (after Allinson et al)



There are CO₂ projects underway or proposed in many parts of the world





Estimates of total amounts of geologically stored CO₂ in existing and advanced proposed projects to 2015

PROJECT	COMMENCED	Anticipated amount injected by:			
		2006	2008	2010	2015
Sleipner	1996	9MT	11MT	13MT	18MT
Weyburn	2000	5MT	9MT	12MT	17MT
In Salah	2004	2MT	5MT	7MT	12MT
Snohvit	2007	0	1MT	2MT	5MT
Gorgon	2010	0	0	2MT	17MT
Peterhead/Miller	2009	0	0	1MT	8MT
California	2011	0	0	0	16MT
FutureGen	2012	0	0	0	2MT
Nagaoka	2002	10KT	10KT	10KT	10KT
Frio	2004	2KT	4KT	4KT	4KT
Ketzin	2007	0	50KT	50KT	50KT
Otway	2007	0	100KT	100KT	100KT
TOTALS		17MT	26MT	39MT	113MT



The CO2CRC Model for global application of CCS



In conclusion...

- A very major research and demonstration effort into CCS is needed over the next 10 years
- Progressive commercial deployment from 2015, starting with power generation and major industrial processes, then transport, with full zero emission by 2055
- Realistic international agreements needed for long term mitigation planning, probably including market signals
- Acceptance that global cost of mitigation will be high
 but the probability that the cost of doing nothing could be much higher
- Geosequestration can be a key part of the strategy for attaining an atmospheric CO₂ concentration of 550 ppm by 2100, but part of a portfolio including renewables, nuclear, energy efficiency



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Macro and Micro Views of the Role for Carbon Dioxide Capture and Geologic Storage in Addressing Climate Change

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