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The Emergence of the Carbon Capture and Storage Industry in Australia

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Load and Generation Outlook

- Load to grow 66% by 2030
- Generation capacity up from 45,000 MW to 75,000 MW by 2030
- 8,000 MW of baseload needed by 2020

Energy and Emissions Study

- Study has limitations but provides useful insights
- Three emission reduction scenarios
- Focus here on meeting load at 2030 and reduce emissions by 30% on 2000 levels
- Study identified least-cost generation fleet

Key Findings (1)

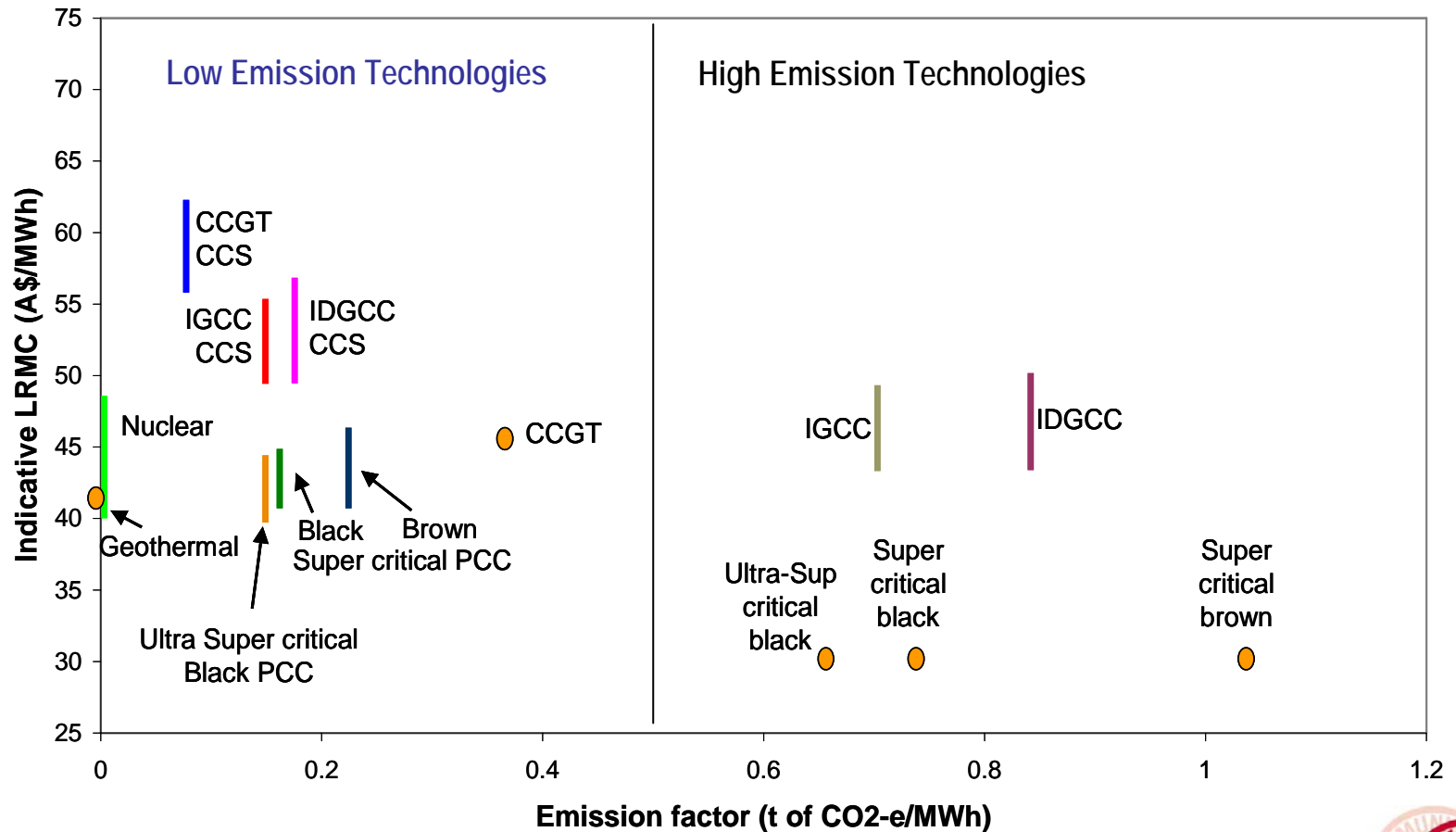
- New technologies not available before 2020
- New technologies at least 30% more costly
- Existing coal-fired plant largely stranded
- Production costs vastly higher without CCS and/or nuclear
- Capital requirement \$40 billion more than unconstrained case

Key Findings (2)

- Geothermal and biomass key renewables
- Gas fired generation dominance only if no CCS or nuclear
- But to 2020, gas is only low emission baseload option
- Financial reward required for adopting low emission technology

Technology Costs and Emissions

Cost vs Emissions (2030)



CARBON CAPTURE AND STORAGE



Change in Total Production Costs

