

Pathways to Deep Decarbonisation in 2050: How Australia can prosper in a low carbon world.

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Countries have agreed that to avoid dangerous climate change, global warming must be kept below 2 degrees. For this to happen all countries, including Australia will have to increase their emissions reduction efforts.

Ambitious Energy Efficiency

in all sectors leads to a halving of the energy intensity of the economy.



Low Carbon Electricity

Low carbon electricity is supplied by renewable energy or a mix of renewable energy and either CCS or nuclear power at similar costs.



Electrification and Fuel Switching

from fossil fuels to bioenergy, and from coal and oil to gas reduces emissions from transport, industry and buildings.



Non-Energy Emissions

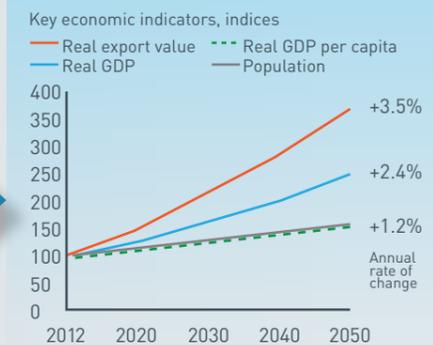
are reduced through process improvements and CCS in industry, while a profitable shift from livestock grazing to carbon forestry offsets any remaining emissions.

CCS



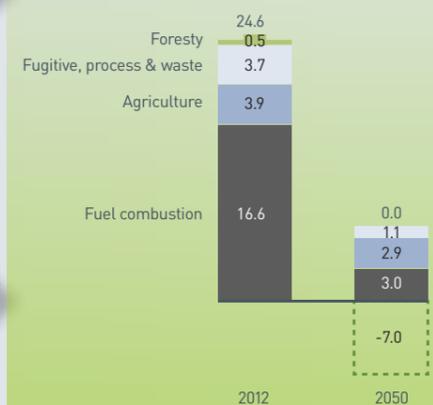
Economic growth to 2050

Australia can decarbonise whilst maintaining economic prosperity. This study shows that real GDP grows at 2.4% per annum, a similar rate to the past 5 years



Emissions in 2050

Australia can reach net zero emissions by 2050 and live within the global carbon budget



The Deep Decarbonisation Pathways Project (DDPP) is a collaborative initiative to understand how 15 countries, representing 70% of global CO₂ emissions, can transition to a low carbon economies.



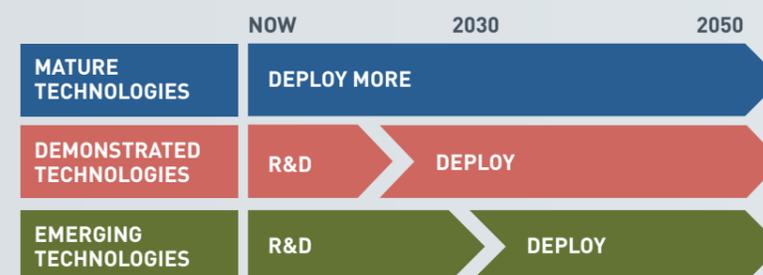
ClimateWorks Australia and Australian National University are leading Australia's participation in the DDPP.

This report is the first milestone in the Australian project and further work is being undertaken. Broad participation in the identification of the challenges and their solutions is invited.

www.climateworksaustralia.org

How can business and government prepare?

- 1) Accelerate emissions reductions activities that are already profitable.
- 2) Take into account the long-term for investment decisions to avoid lock-in of carbon intensive assets.
- 3) Invest in research and development to prepare for technologies that will be needed in the future.



The development and ongoing review of deep decarbonisation pathways are fundamental to long-term planning for a low carbon future.

