



A2EP – 2xEP Energy Productivity Summit
04-05 April, 2017
Australian National Maritime Museum
Darling Harbour, Sydney

Session 07

2xEP by 2030: How? Why?

2xEP and net zero emissions

Paul Graham

Shauna Coffey

Alan Pears

Gordon Weiss

Chair: Amandine Denis > presentation follows



Doing more. Using less.

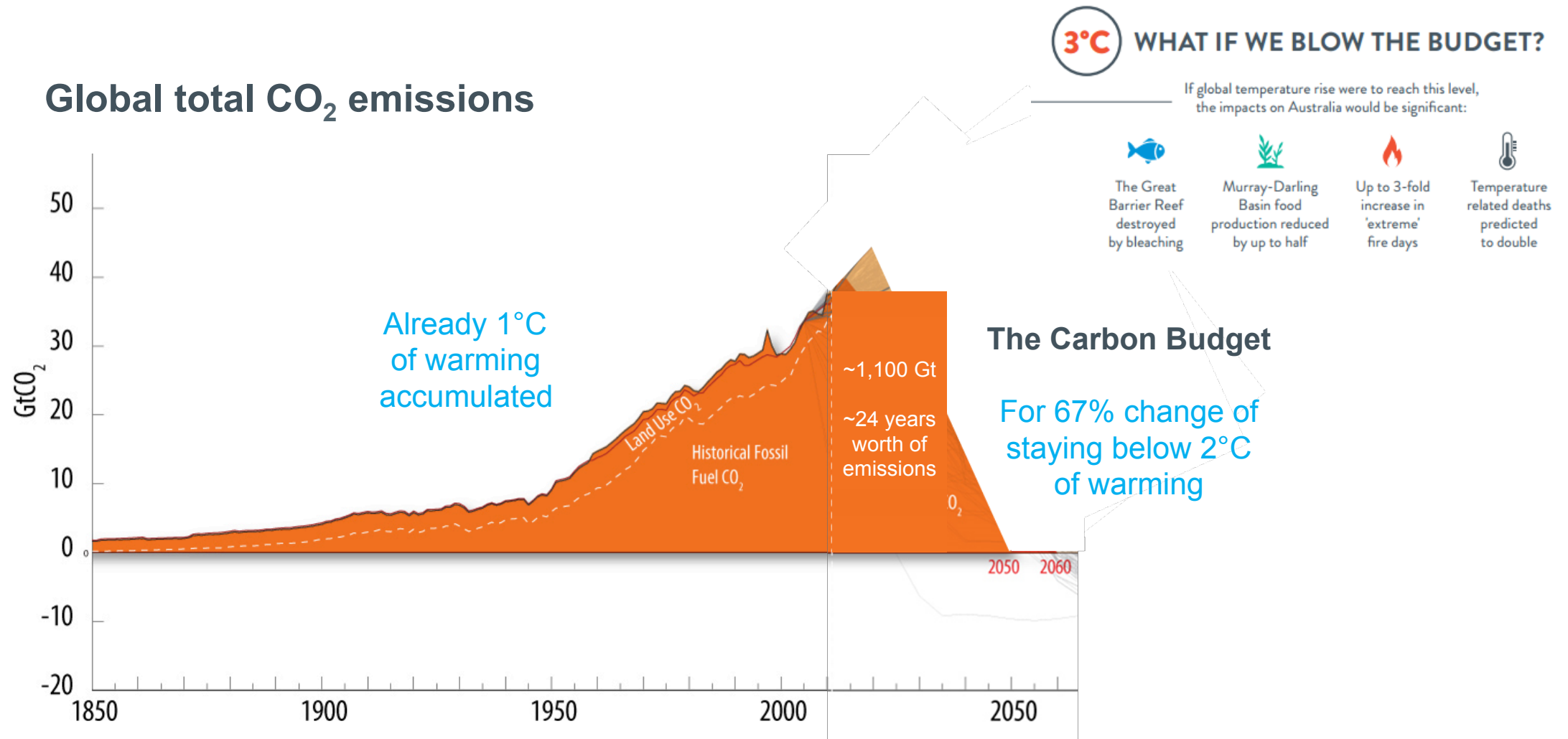


Energy productivity & Net zero emissions

Introduction

Amandine Denis-Ryan, Acting CEO and Head of Research

In order to limit warming to 2°C, global emissions need to reach zero by around 2050



SOURCE: Malte Meinshausen (https://ccep.crawford.anu.edu.au/sites/default/files/events/attachments/2015-03/malte_meinshausen.pdf)

Net zero emissions can be achieved by implementing known technologies within four 'pillars' of transformation

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

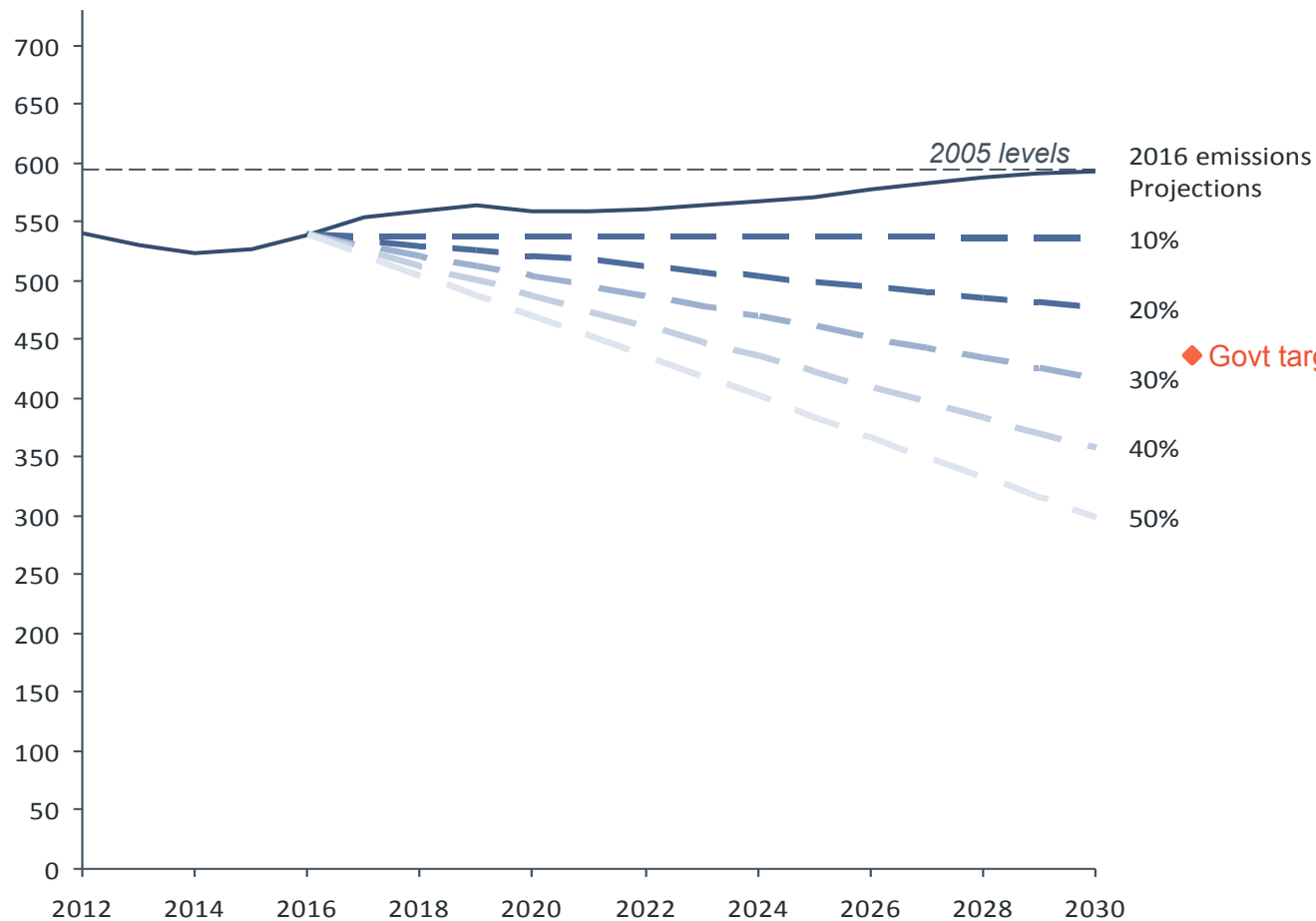
are reduced through process improvements and CCS in industry, while a profitable shift from livestock grazing to carbon forestry offsets any remaining emissions.

CCS

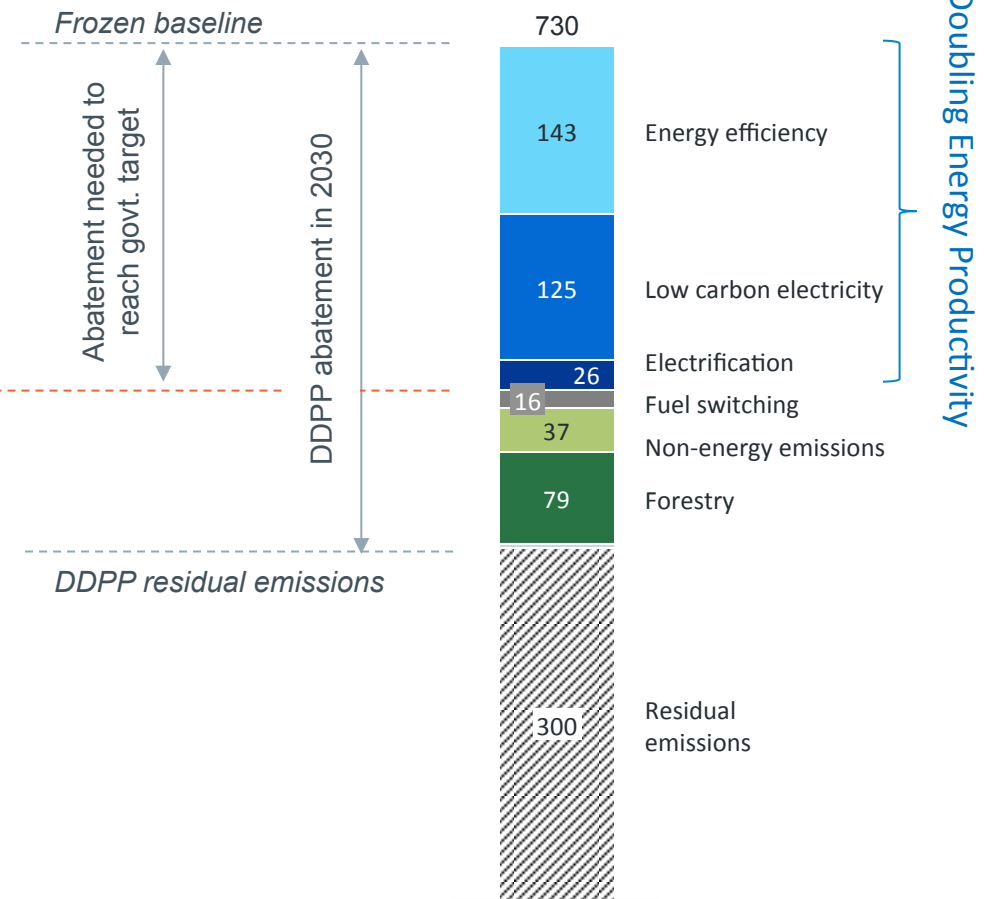


Ambitious improvements in energy productivity are key to staying on the trajectory towards net zero emissions and to achieve the government's emissions reduction target

Australia's emissions projections to 2030 and potential emissions reduction targets below 2005 levels, MtCO₂e per annum



Potential emissions reductions in 2030, MtCO₂e



Source: data extracted from *Pathways to Deep Decarbonisation in 2050: How Australia can prosper in a low carbon world*, ClimateWorks & ANU, 2014

Energy productivity and net zero emissions go together like...



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For further information:

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